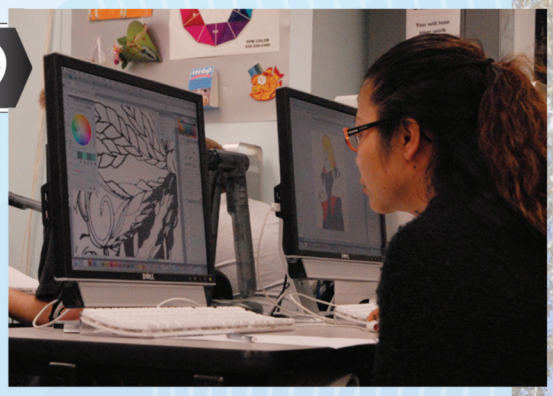
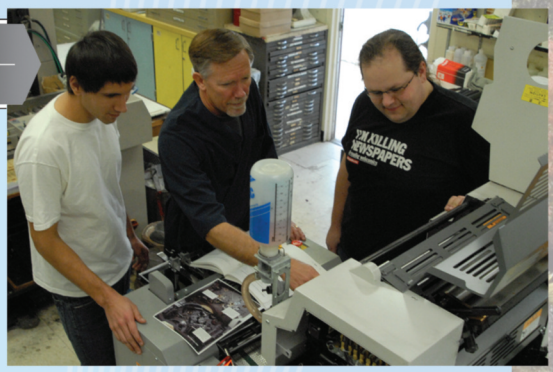
2010-2011

Palomar College Catalog





Diversity of Programs & Services

Welcome to Palomar College

Welcome to Palomar College, a fully-accredited community college committed to educational excellence. We are honored that you have entrusted your college experience to us. At Palomar you will find outstanding academic and vocational programs, comprehensive student support services, and superb faculty and staff.

Whether you plan to earn a degree or certificate, transfer to a four-year university, or take classes for personal or professional enrichment, you will find a wide range of programs and services to assist you on your path. To provide you with convenient and innovative learning opportunities, courses are offered at our San Marcos campus, the Escondido Center, and five educational sites.

The information in this catalog is here to assist you with your educational goals. We encourage you to read this important publication and to refer to it throughout the academic year.

On behalf of everyone here at Palomar College, I welcome you. Your college experience is important to us and we are committed to our vision, "Learning for Success."

To your success!

Robert P. Deegan
Superintendent/President
Palomar College

PALOMAR COLLEGE®
Learning for Success

2010 - 2011 CATALOG Vol. LIX

Palomar Community College District
1140 West Mission Road
San Marcos, California 92069-1487
(760) 744-1150
TDD (Hearing impaired) (760) 471-8506
http://www.palomar.edu

Palomar College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, (10 Commercial Boulevard, Suite 204, Novato, CA 94949 (415) 506-0234), an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. Full credit is given by the University of California, the California State Universities, and other major colleges and universities. Palomar College is also officially accredited by the American Dental Association, the Board of Registered Nursing, and the National League for Nursing, the committee on Accreditation of Educational Programs for the Emergency Medical Services Profession, and the California Commission on Peace Officer Standards and Training.

Palomar College holds membership in the Community College League of California (CCLC), the American Council on Education (ACE) the American Association of Community Colleges (AACC) and the Hispanic Association of Colleges and Universities (HACU). The College is approved for training of veterans and service members and is authorized under federal law to enroll nonimmigrant alien students. Accreditation information is available in the office of the Superintendent/ President.

Palomar College endeavors to present itself and its programs to the public accurately and fairly. To this end, the College subscribes to a policy of truth in advertising. Those responsible for the preparation of this catalog, the class schedule, and all other announcements for public consumption make every effort to assure that the information presented is correct and up to date. However, the College reserves the right to add, amend, or repeal any rules, regulations, policies, and procedures. The College assumes no responsibility for program changes and/or publication errors beyond its control.

Requirements and courses in this catalog are effective with the Fall 2010 semester.

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Preschool Teacher
Chemistry
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Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
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Mathematics
Athletics and Competitive Sports
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Culinary Arts
Nursing
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e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 1
General Information

Palomar College Locations

Committed to serving the entire district, the college literally takes learning to its communities via the Escondido Center and five strategically located sites. At the Center and sites, students may take credit courses leading to an associate degree or certificate, or they may complete transfer requirements for further study at a four-year institution. Many students also enroll in vocational programs, noncredit courses or seminars to upgrade career skills or to continue their lifelong journey of learning.

Palomar College at Camp Pendleton

(760) 725-6626;(760) 744-1150, ext. 7818
Location: Building 1331
Camp Pendleton, CA 92055
Palomar College at Camp Pendleton is open Monday through Thursday, 8:00 a.m. to 6:30 p.m. and Friday, 8:00 a.m. to 2:00 p.m.
Course Offerings: Programs are available in Administration of Justice/Law Enforcement, Business Management, General Business, and General Studies.
Support Services: Admission and enrollment services, counseling and bookstore.

Palomar College Escondido Center

(760) 744-1150, ext. 8134
1951 East Valley Parkway
Escondido, CA 92027
Palomar College Escondido Center Admissions Office is open Monday through Thursday, 7:30 a.m. to 6:00 p.m., and Friday, 7:30 a.m. to 2:00 p.m. Parking permits are required at the Escondido Center.
Course Offerings: General education classes required for an associate degree and/or transfer, non-credit classes, and Community Development fee-based seminars. Vocational programs include Emergency Medical Education, and Wastewater/Water Technology. ESL credit and non-credit classes are offered.
Support Services: Admission and enrollment services, counseling and assessment, tutoring, health services, food services, bookstore, and library with internet access. The Center also has a basic skills computer laboratory.

Palomar College at Fallbrook

(760) 723-1058; (760) 744-1150, ext. 7805
Location: Fallbrook High School
2400 S. Stage Coach Lane, Room 117
Fallbrook, CA 92028
Palomar College at Fallbrook is open Monday through Thursday, 5:00 p.m. to 9:00 p.m. There is no smoking on campus.
Course Offerings: General education classes required for an associate degree and/or transfer, and non-credit classes. ESL credit and non-credit classes are offered.
Support Services: Admission and enrollment services, and bookstore.

Palomar College at Mt. Carmel

(858) 484-3890
Location: Mt. Carmel High School
9550 Carmel Mountain Road
San Diego, CA 92129
(Z-4 portable building, opposite the high school administration building and flagpole)

Palomar College at Mt. Carmel is open 2:00 p.m. to 9:00 p.m., Monday through Thursday. There is no smoking on campus.
Course Offerings: General education classes required for an associate degree and/or transfer, non-credit classes, and Community Development fee-based seminars.
Support Services: Admission and enrollment services, assessment, bookstore, and food services.

Palomar College at Pauma

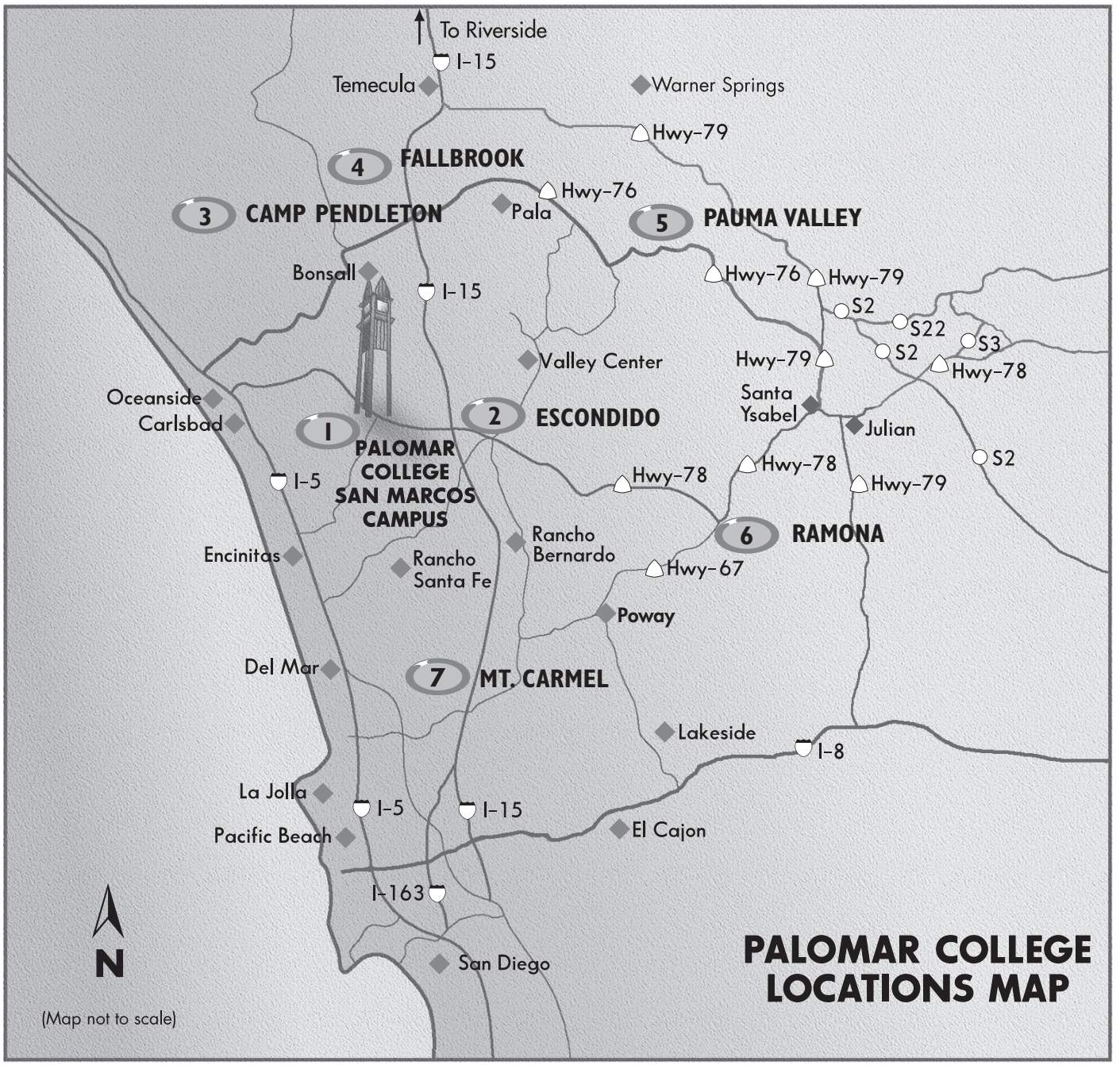
(760) 742-1121
1010 Pauma Reservation Road
Pauma Valley, CA 92061
Palomar College at Pauma is open 10:00 a.m. to 7:00 p.m., Monday through Thursday.
Course Offerings: General education classes required for an associate degree and/or transfer. The site has a basic skills computer laboratory.
Support Services: Admission and enrollment services, counseling and assessment, tutoring and an on-site library.

Palomar College at Ramona

(760) 788-1371
Location: Ramona High School
1401 Hanson Lane
Ramona, CA 92065
Palomar College at Ramona is open Monday through Thursday, 5:00 p.m. to 9:00 p.m. There is no smoking on campus.
Course Offerings: General education classes required for an associate degree and/or transfer and non-credit classes. ESL credit and non-credit classes are offered.
Support Services: Admission and enrollment services, and assessment.

PALOMAR COLLEGE®
Learning for Success

Location of San Marcos Campus, Escondido Center and Five Sites



College Calendar 2010-2011

Summer Session 2010

Residence determination date ..... June 20
6 and 8 week classes begin ..... June 21
Last day to apply for an Associate degree, Certificate of Achievement, or Certificate of Proficiency ..... June 30
Independence Day ..... July 5
6 week TTH classes end ..... July 29
6 week MW classes end ..... August 2
6 week MTWTH classes end ..... August 2
8 week TTH classes end ..... August 12
8 week MW classes end ..... August 16
8 week MTWTH classes end ..... August 16

Fall Semester 2010

First day applications accepted ..... January 4
Registration begins ..... July 6
Faculty Convocation day ..... August 20
Residence determination date ..... August 22
Classes begin ..... August 23
Labor Day ..... September 6
Last day to drop full semester-length classes with no grade placed on permanent record ..... September 22
Last day to apply for an Associate degree, Certificate of Achievement, or Certificate of Proficiency ..... September 30
Last day to drop full semester-length classes with 'W' ..... October 16
Veterans' Day ..... November 12
Thanksgiving Holidays ..... November 25-27
Final examinations begin ..... December 13
Fall semester ends ..... December 18
Semester break/Professional development ..... December 19 - January 15

Spring Semester 2011 (Tentative)

First day applications accepted ..... September 30
Registration begins ..... November 15
Martin Luther King, Jr. Day ..... January 17
Residence determination date ..... January 17
Classes begin ..... January 18
Last day to drop full semester-length classes with no grade placed on permanent record ..... February 16
Lincoln's Day ..... February 18
Washington's Day ..... February 21
Last day to apply for an Associate degree, Certificate of Achievement, or Certificate of Proficiency ..... February 28
Last day to drop full semester-length classes with 'W' ..... March 12
Spring recess ..... March 21-27
Final examinations begin ..... May 14
Spring semester ends ..... May 20
Evening commencement ..... May 20
Memorial Day ..... May 30

Summer Session 2011 (Tentative)

4 week classes begin May 23 and end ..... June 18
Residence determination date ..... June 19
6 and 8 week classes begin ..... June 20
Last day to apply for an Associate degree, Certificate of Achievement, or Certificate of Proficiency ..... June 30
Independence Day ..... July 4
6 week TTH classes end ..... July 28
6 week MW classes end ..... August 1
6 week MTWTH classes end ..... August 1
8 week TTH night classes end ..... August 11
8 week MW classes end ..... August 15
8 week MTWTH classes end ..... August 15

College Organization

District Governing Board

Nancy C. Chadwick, M.S.W., M.P.A.
Rose Marie Dishman, Ph.D.
Mark R. Evilsizer, M.A.
Darrell L. McMullen, M.B.A.
Michele T. Nelson, Ph.D.
A.S.G. President

Superintendent/President

Superintendent/President
Robert P. Deegan ..... **Ext. 2105**

Communications, Marketing and Public Affairs
Laura Gropen, Interim Director ..... **Ext. 2152**

Foundation
Richard Talmo, Executive Director ..... **Ext. 2732**

Institutional Research and Planning
Michelle Barton, Director ..... **Ext. 2360**

Instructional Services

Assistant Superintendent/Vice President
Berta Cuaron ..... **Ext. 2246**

Division of Arts, Media, Business, and Computer Science

Norma Miyamoto, Dean ..... **Ext. 2154**
Art Department ..... Ext. 2302
Business Administration Department ..... Ext. 2488
Communications Department ..... Ext. 2440
Computer Science and Information Systems Department Ext. 2387
Graphic Communications Department ..... Ext. 2452
Performing Arts Department ..... Ext. 2316

Division of Career, Technical, and Extended Education

Wilma Owens, Dean ..... **Ext. 2276**
Cooperative Education Department ..... Ext. 2354
Design and Consumer Education Department ..... Ext. 2349
Emergency Medical Education ..... Ext. 8150
Occupational and Noncredit Programs ..... Ext. 2284
Public Safety Programs ..... Ext. 1722
Regional Occupational Programs ..... Ext. 2301
Trade and Industry Department ..... Ext. 2545
Workforce and Community Development ..... Ext. 2826

Palomar College Locations

Extended Education
Director ..... **Ext. 8102**
Escondido Center, and Mt. Carmel, and Ramona Sites
Manager ..... **Ext. 8103**
Camp Pendleton, Fallbrook, and Pauma Sites
Janet Hoffman, Manager ..... **(760) 385-0498**

Division of Languages and Literature

Stephen McDonald, Dean ..... **Ext. 2251**
English Department ..... Ext. 2392
English as a Second Language Department ..... Ext. 2261
Reading Services ..... Ext. 2568
Speech Communication/Forensics/ASL Department ..... Ext. 2405
World Languages Department ..... Ext. 2390

Division of Mathematics and the Natural and Health Sciences

Dr. Candi Francis, Dean ..... **Ext. 2253**
Chemistry Department ..... Ext. 2505
Dental Assisting Program ..... Ext. 2571
Earth, Space, and Aviation Sciences Department ..... Ext. 2512
Life Sciences Department ..... Ext. 2275
Mathematics Department ..... Ext. 2535
Nursing Education Department ..... Ext. 2580
Physics and Engineering Department ..... Ext. 2505

Division of Social and Behavioral Sciences

Judy Cater, Interim Dean ..... **Ext. 2759**
American Indian Studies Department ..... Ext. 2425
Behavioral Sciences Department ..... Ext. 2329
Child Development Department ..... Ext. 2206
Children's Center ..... Ext. 2578
Economics, History, and Political Science Department ..... Ext. 2412
Library Technology ..... Ext. 2666
Multicultural Studies Department ..... Ext. 2206
Physical Education Department ..... Ext. 2459
Tutoring Services Program ..... Ext. 2238

STUDENT SERVICES

Dr. Mark Vernoy.....Ext. 2158
Interim Assistant Superintendent/Vice President

Athletics

Scott Cathcart, Director .....Ext. 2460

Campus Police

.....Ext. 2289

Counseling Services

Lynda Halttunen, Dean .....Ext. 2184
Articulation Services .....Ext. 2528
Career Center .....Ext. 2194
Counseling Center .....Ext. 2680
Disability Resource Center .....Ext. 2375
Extended Opportunity Programs and Services .....Ext. 2449
Grant Funded Programs .....Ext. 3678
Transfer Center .....Ext. 2552

Enrollment Services

Herman Lee, Director .....Ext. 2171
Admissions and Enrollment .....Ext. 2164
Admissions and Enrollment, Escondido .....Ext. 8134
Evaluations and Records .....Ext. 2165
Financial Aid and Scholarships .....Ext. 2367
International Education .....Ext. 2167
Veterans' Services .....Ext. 2173

Health Services

Jayne Conway, Director .....Ext. 2380

Student Affairs

Sherry Titus, Director .....Ext. 2595

FINANCE AND ADMINISTRATIVE SERVICES

Dr. Bonnie Ann Dowd .....Ext. 2109
Assistant Superintendent/Vice President
Business Services .....Ext. 2122
Facilities .....Ext. 2629
Fiscal Services .....Ext. 2215
Information Services .....Ext. 2140
Payroll Services .....Ext. 2937

HUMAN RESOURCE SERVICES

John S. Tortarolo .....Ext. 2531
Assistant Superintendent/Vice President
Human Resource Services .....Ext. 2609

History of the College

The history of Palomar College is rich in tradition and educational achievements. On January 15, 1946, registered voters in the Vista Unified School District, the Fallbrook Union School District, and the Escondido Union High School District voted 714 to 417 in favor of establishing a "junior college" in the North San Diego County area. Under state law, the San Diego County Superintendent of Schools appointed five persons as members of the first Governing Board for the new college. The Governing Board hired the first college president in 1946, Dr. Daniel C. McNaughton, supported by a director, a dean of students, and nine faculty members. Located on the Vista High School campus, Palomar College opened its classroom doors on September 23, 1946, with exactly 100 persons enrolled in classes in science, mathematics, music, art, social sciences, commerce, English, physical education, and foreign languages.

Today, Palomar College is a public, two-year community college in San Diego County with its San Marcos campus located approximately 30 miles north of San Diego at 1140 West Mission Road, San Marcos, CA 92069. The 200-acre campus, the education center in Escondido, and five sites serve a district covering 2,555 square miles in North San Diego County. The five education sites are located in Camp Pendleton, Fallbrook, Mt. Carmel, Pauma Valley, and Ramona. The Escondido Center is located on eight acres owned by the District, and the proposed North Education Center in Fallbrook will be located on a newly acquired 82 acre property. Palomar College constitutes a single-college district, and it is the largest community college in San Diego County.

Palomar College borders seven other community college districts: South Orange County, Mount San Jacinto, Desert, Imperial Valley, Grossmont-Cuyamaca, San Diego, and MiraCosta. However, only Mount San Jacinto, Grossmont-Cuyamaca, San Diego, and MiraCosta have significant service overlap with the Palomar Community College District. The others adjoin the most lightly populated areas of the district, and their campuses are distant from any of the Palomar permanent facilities.

Palomar College has five academic divisions: (1) Arts, Media, Business, and Computing Systems; (2) Career, Technical, and Extended Education; (3) Languages and Literature; (4) Mathematics and the Natural and Health Sciences; and (5) Social and Behavioral Sciences. The College offers more than 300 credit degree and certificate programs within those five divisions and noncredit courses.

In the November 2006 General Election, voters approved an educational facilities improvement measure (Proposition M), which provides the majority of the funding for the College's $1 billion construction and remodel plan. The first major step in the implementation of this plan was realized with the completion of the Natural Sciences Building, which opened for the Fall 2007 semester. This is an exciting time for students, faculty, staff, and administration at Palomar College. The vision in the Master Plan 2022 has moved to reality as the planning, design, and construction of several instructional and support facilities take shape. Master Plan 2022 is transitioning Palomar College into its next generation as an outstanding institution in higher education committed to the learning success of its students and responsive to the changing needs of its diverse community.

Vision

Learning for Success

Mission

Palomar College is an educational leader committed to quality learning. Our mission is to provide an engaging and supportive learning environment for students of diverse origins, experiences, needs, abilities, and goals who are pursuing transfer-readiness, general education, basic skills, career and technical training, and lifelong education. We are committed to promoting the learning outcomes necessary for our students to live responsibly, effectively, and creatively in an interdependent and changing world.

Values

Palomar College is a community dedicated to achieving student success and cultivating a love of learning. We strive continually to improve our community's performance and outcomes. To create the highest quality learning and cultural experiences, we are guided by our core values of

- achieving excellence in teaching, learning, and service
- fostering integrity as the foundation for all we do
- providing access to our programs and services
- ensuring equity and the fair treatment of all in our policies, processes, and procedures
- celebrating diversity in learning environments, philosophies, cultures, beliefs, and people
- supporting inclusiveness of individual and community viewpoints in collaborative decision-making processes
- promoting mutual respect and trust through open communications and actions
- supporting innovation to enhance and enrich learning environments and services.

Educational Philosophy

The educational philosophy of Palomar College is based upon belief in the value of the individual and belief in the individual's potential for intellectual, ethical, personal, and social growth. Only through growth in these areas can a citizen come to understand personal rights.

The fundamental assumption of the democratic way of life is the intrinsic worth of the individual. This assumption thus becomes the main principle of public education.

In order to become an effective member of a democratic society, an individual should participate in a free exchange of ideas. Only within a democracy is the individual assured the freedom for such an exchange and for self-realization consistent with the freedoms and opportunities of others.

By providing equal opportunities for all, the community college helps its students to realize their potential. Thus their talents become more readily available to the community, and their participation in society becomes more effective.

Academic Freedom

The instructional program at Palomar College shall be conducted in accordance with principles of academic freedom of inquiry. The educational program must encourage freedom of expression and freedom of inquiry within the framework of responsibility.

Palomar College considers academic freedom, defined by its attendant rights and responsibilities, as a vital, primary force in the achievement of the aims and objectives of the institution. Academic freedom involves inherently the following rights and responsibilities:

- To research to the limit of competence and training, the assigned teaching area and its references
- To survey, probe, and question the relationship of humans to their environment within the guidelines of research techniques and intelligent discussion
- To question and challenge, without fear of censorship or discipline, those actions originating from within the institution which seriously affect the total academic environment
- To introduce, within the assigned teaching area, controversial concepts, issues, and systems, subjecting these ideas to the test of objective reasoning
- To create an unhampered and clear intellectual atmosphere democratically maintained, encouraged, and supported by students, staff, administration, and members of the Governing Board
- To associate with those individuals or groups of one's choice without fear of censorship or discipline, unless such association is forbidden by law

At no time will the inherent right of staff to use any of the normal channels of campus communication be abridged, nor will individual staff members be singled out for special prior censorship of their use of such channels of communication. It is understood that staff members exercising this right will accept responsibility for both the substance and the manner of their messages.

The college or university teacher is a citizen, a member of a learned profession, and an officer of an educational institution. When he/she speaks or writes as a citizen, he/she should be free from institutional censorship or discipline, but his/her special position in the community imposes special obligations. As a person of learning and an educational officer, he/she should remember that the public may judge his/her profession and institution by his/her utterances. Therefore, he/she should at all times be accurate, show respect for the opinions of others, and make every effort to indicate that he/she is not an institutional spokesperson.

Palomar College encourages freedom of expression and the free flow and exchange of information and ideas. The College seeks to protect academic freedom and supports free and unfettered scholarly inquiry. In compliance with these requirements, the College encourages faculty, staff, and student involvement with others in support of candidates for offices or in the furtherance of other political activities.

Governing Board and District Policy

In accordance with its designated function as a policy-making body, the Governing Board of the Palomar Community College District creates the policies by which the district operates, subject to the Education Code of the State of California, all rules prescribed by the Board of Governors of the California Community Colleges, and all federal statutes. Board policy may be changed, subject to the Education Code of the State of California, only by action of the Governing Board through a majority vote of its members.

The Governing Board schedules its regular open meetings in the Board Room on campus at 5:00 p.m. on the 2nd Tuesday of the month. Meetings are open to the public.

Palomar College Foundation

Since the 1950s, the Palomar College Foundation has helped provide supplement public funding for college programs and activities. Over the years, the Foundation has provided funding for the swimming pool, a harpsichord for the Performing Arts Department, a trailer for tutorial groups, facilities for the Child Development Center, furniture for the Student Center, renovation for the Library, curtains for the Theatre, and many, many scholarships for deserving students.

With the support and generosity of the community, the Palomar College Foundation has secured over $15 million in designated and undesignated funds which are support student learning, educational programs, scholarships and capital equipment. Yet, every year as state budgets shrink, the needs of our community grow.

Won't you consider making a contribution? We welcome the support of individuals, families, and businesses who want to help fulfill the mission of Palomar College, the vision of our community and the hopes of thousands of students and families who need our help. For more information or to be added to our newsletter mailing list, please call the Advancement Office, (760) 744-1150, ext. 2733.

Policy on Diversity

Palomar College recognizes and appreciates the benefits of a diverse campus community and values the individual distinctions of its staff and students. In support of its goal to encourage students to examine their own and other heritages through multicultural and interdisciplinary programs, Palomar College seeks to provide positive role models for all students and recognizes that diversity in the academic and vocational environment fosters cultural awareness, mutual understanding and respect, harmony and creativity.

Palomar College offers equal educational and employment opportunities regardless of group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability. It is the policy of the College that, unless exempted by statute, every course offered and maintained by the District shall be fully open to enrollment and participation by any person who has been admitted to the College and who meets the stated prerequisites for the course.

The District's policy of non-discrimination covers admission, outreach, educational programs and activities, facilities, access to course offerings, counseling, financial assistance, employment assistance to students, health and insurance benefits and services, athletics, textbooks and curricular material, and employment.
Limited English speaking students who are otherwise eligible will not be excluded from any vocational education program.

Spanish Translation
Los estudiantes elegibles para entrar en el programa de educacion vocacional no pueden ser excluidos debido a su ingles limitado.

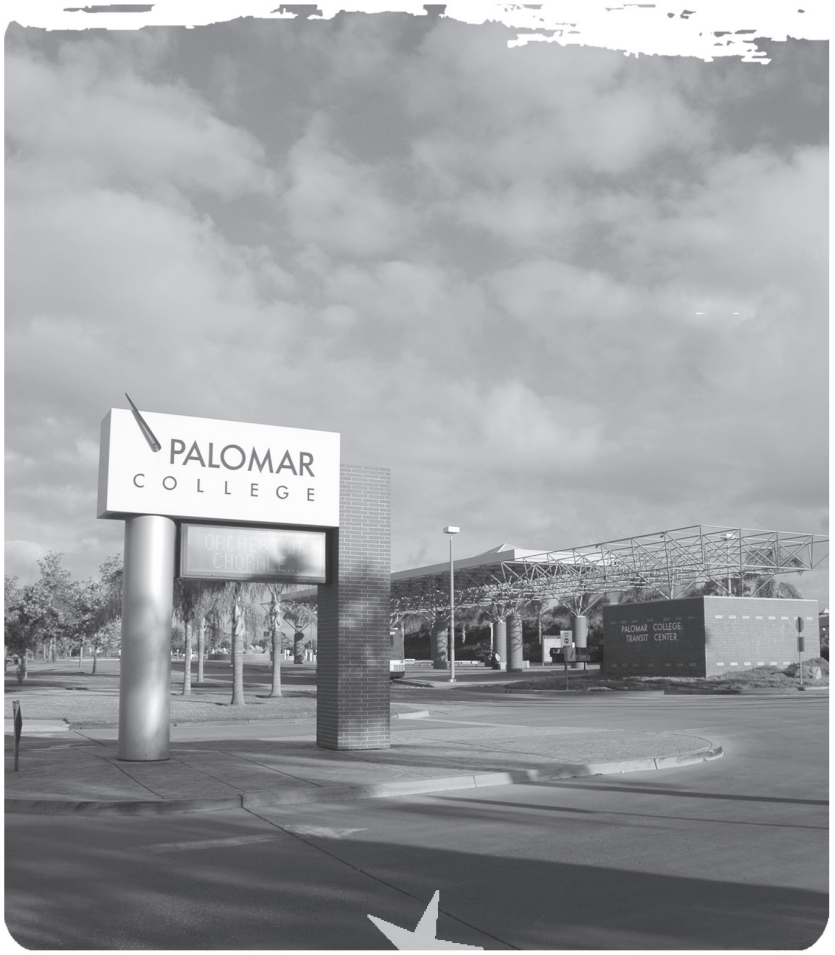
Vietnamese Translation
Nhung hoc-sinh neu hoi du cac dieu-kien phu-hop vao nhung chuong-trinh giao-duc huan-nghe se khong bi tu khuoc boi ly do trinh-do Anh-van kem.

Designation of Responsible Employee as Title IX Coordinator

The Assistant Superintendent/Vice President, Human Resource Services, Administrative Services Building, room A-1, (760) 744-1150, ext. 2531.

2

Admission and Registration



Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
Aviation Sciences
e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 2
Admission and Registration

Admissions Policy

Any person who meets one of the following requirements is eligible to attend Palomar College:

- Has graduated from an accredited high school
- Is a non-high school graduate 18 years of age or older
- Has passed the California High School Proficiency Examination (CHSPE), or Certificate of Equivalency (G.E.D.)
- Is a minor who may profit from instruction and has permission of thelocal high school district
- Has petitioned for special admission and obtained approval from parent/guardian, representative of the school district of residence and Palomar College Director of Enrollment Services (admitted on a permission and space available basis).

Policy of Nondiscrimination

Palomar College offers educational opportunities regardless of group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability. It is the policy of the College that, unless exempted by statute, every course offered and maintained by the District shall be fully open to enrollment and participation by any person who has been admitted to the College and who meets the stated prerequisites for the course.

The District's policy of nondiscrimination covers admission, outreach, educational programs and activities, facilities, access to course offerings, counseling, financial assistance, employment assistance to students, health and insurance benefits and services, athletics, textbooks and curricular material, and employment.

Application for Admission

Anyone who wishes to attend Palomar College must submit a completed application for admission. Students may apply online at http://www.palomar.edu.

Admission to Special Programs

Admission to the Dental Assisting Program and the Nursing Program is by special application. For information contact the Health Programs Coordinator, room NO-2, ext. 2279.

Special Admission for Accelerated Students

To be considered for admission, minors must have completed the eighth grade or reached the age of 15, and have permission of the local school district. Home-schooled minors may enroll with permission of the local school district. Minors, under 15 years of age, with permission from a public or private school, and the Palomar College instructor, may enroll only in courses specified by the local school district or private school. Otherwise, minors under 15 years of age are limited to enrolling in special classes devoted to children, such as child development lab classes or youth orchestra. Credit earned is college credit and may also be used as high school credit with consent of the high school. See the Admissions Office for details.

Residency

Information in the following paragraphs summarizes the rules and regulations related to student residency for educational purposes. Details are found in Education Code Section 68090, Title 3, Part 41, Chapter 1, and may be found in the College Library.
Residency is determined when a student applies for admission to the College. The Admissions Office will help with questions and interpretation of the regulations.

Definition of Residence

In law, every person has a residence. There can be one and only one residence. A residence cannot be lost until another is gained. It is the place where one lives when not on vacation or leave. It can be changed only by a combination of act and intent.
Every person who is married or is 18 or older and under no legal restriction may establish a residence. Certain minors may also establish residence.

Residency Status

A California "resident" is a person who has resided in the state for more than one year prior to the residence determination date and shows "intent" to the state of California.
A "nonresident" is a person who has not resided in California for the full one-year period before the residence determination date. A nonresident must pay nonresident tuition in addition to other fees for credit classes. Tuition must be paid in full at registration.

Residence Determination Date

The residence determination date is that day immediately preceding the first day of instruction.

Factors Considered to Determine Residency

The following factors are called "indices of intent." They, along with a person's presence in California, are considered in determining California residency. No one factor decides residency. All evidence is weighed. If any one of the "indices of intent" shows intent only for another state during the one-year period, it may show lack of intent for California:

- Own residential property in California for personal use
- Are licensed to practice a profession in California
- Vote in California
- Pay California State Income Taxes
- Possess a California driver's license and a vehicle registered in California
- Have an active checking and/or savings account in a California bank
- Show a California address on military records
- Possess a marriage license or a divorce decree issued in California
- Have been paying nonresident tuition in another state

Exception to Residency Requirements

There are exceptions to the residency rules. They may include the following:

- Active duty military personnel stationed in California
- Dependents of active duty military personnel stationed in California
- Certain minors who stayed in California when parents moved
- Self-supporting minors

- Full-time employees of Palomar College or a child or spouse of the full-time employee
- Those who attended a California high school for 3 or more years AND graduated from a California high school or attained an equivalent (GEDor CHSPE). This exception does not grant California residency or eligibility for any state financial aid.

International Students (F-1 and M-1 Visas)

Palomar College is authorized under federal law to enroll nonimmigrant alien students. The following is required for admission to the regular College program:

- International student application with passport-size photograph
- Confidential financial statement certified by bank official
- Test of English as a Foreign Language (TOEFL) score of 470 (PBT)/150 (CBT) or more
- High School graduate (official transcripts of all secondary and college work must be provided with certified English translation)
- Satisfactory report if attending a language school or another college in the U.S.A.
- Letter of reference
- Doctor's health certification (TB skin test)

Application Deadlines:

For Fall 2010/Overseas applicants	June 1, 2010
Applicants within the USA	June 15, 2010
For Spring 2011/Overseas applicants	Oct. 15, 2010
Applicants within the USA	Nov. 1, 2010
For Summer 2011/Overseas applicants	March 1, 2011
Applicants within the USA	March 15, 2011
For Fall 2011/Overseas applicants	June 1, 2011
Applicants within the USA	June 15, 2011

International students are required to pay nonresident tuition. For informational brochure and/or application forms, contact:

Office of International Education Palomar College
1140 W. Mission Road
San Marcos, California 92069-1487 USA
(760) 744-1150, Ext. 2167
FAX (760) 761-3592
http://www.palomar.edu
intladm@palomar.edu

International students who do not meet the requirements for regular College admission may attend the intensive English language program. For an informational brochure and/or application forms, contact:

California English School
Palomar College
1140 West Mission Road
San Marcos, California 92069-1487 USA
(760) 591-4930
FAX (760) 591-4932
ces@palomar.edu

Matriculation Rights and Responsibilities

Matriculation is a process that assists you in choosing, planning, and achieving your educational and career goals. It is Palomar's way of supporting your right to succeed in college. Matriculation is a partnership between you and Palomar College.

Palomar College agrees to:

- Evaluate your English, math, and reading skills
- Help you register for appropriate classes
- Provide you with an orientation, and information on services available, and possible majors and/or careers
- Provide access to counselors and instruction

You agree to:

- Decide upon your major and goal
- Attend an orientation and assessment session
- Work with us to develop an educational plan by the time you have completed 15 units
- Attend and complete courses to make the best use of the time you spend at Palomar

The College may suspend or terminate services to any student who fails to fulfill his/her responsibilities. However, the College may never suspend or terminate any service for which a student is otherwise entitled under any other provision of law. In addition, students may challenge any matriculation requirement or regulation using the petition process.

Prior to registration, all non-exempt students must complete the following steps that apply:

- Submit an application for admission
- Send in all transcripts or previous assessment scores for consideration
- Sign up for, and attend, an assessment and orientation session at the Assessment Center, SU-1, or at the Escondido Center.

New, returning, or transfer students who may be exempted from the matriculation process are students who:

- Already have an associate's or bachelor's degree
- Are attending Palomar for personal enrichment
- Are enrolled only in noncredit community education courses
- Are taking classes only to upgrade job skills
- Are enrolled in apprenticeship or other special vocational education programs
- Are concurrently enrolled in another college or university

Exempt students are not required to participate in the matriculation process, but are encouraged to see a counselor at any time.

Assessment, Advisement and Orientation

What is Assessment?

Assessment is the process the College uses to evaluate your skills in areas such as:

- Reading
- Writing
- Math
- English as a Second Language (ESL)

Assessment (the placement process includes multiple measures), advisement, and orientation are given several times throughout the year for the convenience of new, continuing, returning, and transfer students.

Assessment gives students knowledge of present levels of skills in math, English, and reading. Assessment, along with advisement and orientation, using COMPASS, takes approximately 3 hours, and includes receiving the results.

All students must submit an application for admission before making an appointment for the placement test. Non-exempt students must contact the Student Access/Assessment Center for a reservation ticket. Reservation tickets are issued on a first-come, first-served basis. Seating is limited. Students may also schedule an appointment by e-mail to Assessment@palomar.edu. Students should find the location prior to their appointment since no one will be admitted after the assessment has begun. All three subjects (English, math and reading) will be covered. Students are permitted to be assessed only once per year. Placement is valid for two years.

In addition to taking Palomar's placement test, the following options are also available to students:

1. Students may submit documentation of previous college course work and/or assessment scores from another college. Scores expire after two years; course work does not expire.
2. Non-native English speakers may participate in a specialized placement process. Contact the ESL Department.
3. Special testing conditions are offered for disabled students through the DSP&S Department.
4. Students may place themselves in entry-level classes and progress through the curriculum without taking the assessment.

The decision to challenge assessment placement will be made on an individual basis. Please contact the Assessment Office located in the Student Access/Assessment Center, SU-1.

What is Orientation?
Orientation is a process that provides students with information about the College's programs, services, academic expectations, procedures, advising and registration. Orientation follows all areas of assessment. Assessment results will be distributed at the conclusion of the orientation. Students will:

- Receive information about college requirements
- Learn about the requirements for Certificates, Associate and Bachelor's degrees, specific major requirements and general information
- Receive information about assessment recommendations and basic skill levels
- Available immediately after scheduled assessment online

When do I need Assessment, Advisement and Orientation?
New students must complete assessment, advisement and orientation before qualifying to register for classes. Students who meet this requirement before the registration period for the next semester will receive an earlier registration appointment.

There are several other options for completing assessment, advisement, and orientation. These include special sessions for:

- Students with disabilities
- English as a Second Language students
- International students

Contact the Student Access/Assessment Center, see the current class schedule, or visit the Website, http://www.palomar.edu/counseling/ASSM.html.

What is Educational Planning?
Educational Planning is the process of mapping your courses semester by semester. A counselor will assist you in choosing the appropriate course sequence that best fits your educational goal.
English, math, reading, and study skills are the foundation for success in other college level courses.

Complaints
If you feel that assessment, orientation, counseling, or any other matriculation procedure is being applied in a discriminatory manner, you may file a complaint to the Dean of Counseling Services, ext. 2184.

Enrollment Conditions
Many courses and education programs of study have enrollment conditions such as prerequisites, corequisites, or advisories on recommended preparation. These faculty-approved conditions are considered necessary and appropriate to ensure that you are adequately prepared to succeed in the course or educational program.
Enrollment restrictions are defined below. It is your responsibility to meet any and all enrollment conditions.

What is a Prerequisite?
A prerequisite is a condition of enrollment that you are required to successfully ('C' or better) meet in order to demonstrate current readiness in a course or educational program. You may be required to show proof of meeting the prerequisite. Failure to meet the stated prerequisite may result in you being administratively dropped from the course.

What is a Corequisite?
A corequisite is a condition of enrollment consisting of a course that you are required to simultaneously take in order to enroll in another course. Failure to enroll in the stated corequisite will result in you being administratively dropped from the course.

What is an Advisory on Recommended Preparation?
Recommended preparation is a condition of enrollment that you are advised, but not required, to meet before or in conjunction with enrollment in a course or educational program. If you believe that you have satisfied the advisory by means other than the stated advisory, you are urged to consult with the appropriate department to determine your readiness to enroll in the course or educational program.

Are there other limitations on enrollment?
Yes. Enrollment in certain courses or educational programs of study may require try-outs, auditions, or may be limited by health and safety considerations, facility limitations, faculty workload, the availability of qualified instructors, funding limitations, or legal requirements imposed by statutes, regulations or contracts. All such limitations are in conformity with the provisions of Title 5, Section 58106, California Community Colleges Board of Governors.

What if I don't have the necessary prerequisites or corequisites?
You may not be permitted to enroll in a class for which you cannot demonstrate you have met the prerequisite, or are enrolled in the corequisite. If it is determined after a course begins that you have not met the prerequisite, you may be dropped from the course.

What if I am currently enrolled in the prerequisite when it is time to register for my class? Will I be prevented from enrolling in the next level course?
No. If you are currently enrolled in the prerequisite course at Palomar College, and it is assumed that you will pass the course with a 'C' or better, you will be permitted to enroll in the next level course. If you do not successfully pass the course (D, F, FW, NC, Inc, or W), you will be dropped from the class before the opening day.

Can I challenge a prerequisite or corequisite?
Yes, under certain conditions. Refer to the information on challenges below.

Challenging Prerequisites
You have the right to challenge any prerequisite. A prerequisite or corequisite challenge requires written documentation, explanation of alternative course work, background, abilities, or other evidence which has adequately prepared you for the target course. A Prerequisite or Corequisite Challenge Petition can be obtained from the Admissions & Records Office, the Counseling Center, or an Education Center or Site. Reasons for seeking a Prerequisite and Corequisite Challenge Petition may include one or more of the following:

1. A prerequisite or corequisite has not been made reasonably available.
2. A prerequisite or corequisite has not been established in accordance with the District's process for establishing prerequisites and corequisites.
3. You can provide evidence of having the knowledge or ability needed to succeed in the course despite not meeting the prerequisite or corequisite.
4. You may challenge other limitations on enrollment.
5. You may challenge a prerequisite or corequisite established to protect the health and safety of himself, herself, and/or others.
6. A prerequisite, corequisite, or limitation on enrollment is discriminatory or applied in a discriminatory manner.
7. A prerequisite or corequisite is in violation of Title 5.

If space is available in the target course when you file a challenge to the prerequisite or corequisite, the College shall reserve a seat for you and resolve the challenge within five working days. If the challenge is upheld or the College fails to resolve the challenge within the five working day period, you shall be allowed to enroll in the course. If no space is available in the course when a challenge is filed, the challenge shall be resolved prior to the beginning of registration for the next term, and if the challenge is upheld, you shall be permitted to enroll if space is available when you register for that subsequent term.

Transcripts/Advanced Standing

Transcripts from other colleges and universities must be received by the Admissions and Records Office no later than the end of the first semester of attendance.

Transcripts received become the property of Palomar College and cannot be returned to the student or forwarded to other schools. If a student has submitted transcripts from another institution, and has not attended within two years or has not applied for graduation, transcripts may be destroyed and must be re-submitted by the student.

Courses, units, and grades from other regionally accredited colleges and universities that are accepted will be applied toward the completion of academic degrees or certificates of achievement at Palomar College. Units accepted may also be applied toward transfer patterns to four-year institutions.

Transcripts from foreign schools or universities must be evaluated by an approved credentials evaluation service.

Refer to the Academic Regulations and Standards section of the catalog regarding acceptance of non-traditional credit.

Student Classification

Freshman
A credit student who has completed less than 30 semester units.
Sophomore
A credit student who has completed 30 or more semester units, but does not have an A.A. degree.
Unclassified
A registered credit student who, by definition, is neither a freshman nor a sophomore.

Financial Aid Application and Enrollment Fee Waiver

Students are encouraged to apply online for financial aid as early as possible. Sign-in to Student eServices after you complete the online application at www.palomar.edu. You may apply for the Board of Governor's Fee Waiver through the Palomar Financial Aid web page (www.palomar.edu/fa) and expect confirmation within three working days. You may also apply for the fee waiver as part of your FAFSA (Free Application for Federal Student Aid) and confirmation could take up to two weeks.

Current and potential financial aid students are advised to only take courses that are required for their declared program of study at Palomar College.

Enrollment Options

Community Education Classes
Not for credit courses which support life-long learning. May be either full term or short term.

Community Development Seminars
Noncredit workshops, classes, seminars, activities, and events to help you continue learning throughout your life. Usually taught as evening or weekend courses.

Fast Track
Fast-track courses, which are eight weeks in duration, are offered throughout the calendar year. The work that students complete in a semester-length class is compressed into eight weeks. These classes are intensive, but they allow students to move quickly to advanced study or to a career.

Full Term Classes
A regular semester course of 17 weeks.

Intersession Classes
Courses offered between regular terms.

Late Start Classes
Accelerated courses which are less than 16 weeks, but which must be completed within a semester/session.

Learning Communities
An enriched learning experience linking different courses around a central theme or question. Students must enroll in the whole block of courses, and progress through the semester as a group.

Online Classes
Online classes offer convenience for students with busy schedules. Students must have reliable access to e-mail and the Internet. You can "attend class" at any hour of the day or night, and communicate with your instructor via e-mail or electronic discussion boards as your schedule allows. Attendance at some on campus activities may be required for some on-line classes. Student financial awards may be impacted in certain cases. Please check with the Financial Aid Office for more information. Online classes are academically equivalent to traditional face-to-face classes. For more information, visit our web site at http://www.palomar.edu/blackboard.

Regional Occupational Programs (ROP)
ROP offers tuition-free courses, regardless of income, and serves all residents of San Diego County 16 years of age and older. Classes provide entry-level, upgrade, and advanced job skills training.

Saturday Classes
Academic or vocational courses taught on Saturdays, generally in the mornings. May be either full term or short term.

Self-Paced Classes (Open Entry)
Courses which allow flexibility in scheduling, where a student may enroll at any time up to a designated date in the semester/session. Hours of attendance are arranged with the instructor. Depending upon unit value, a specified number of hours must be completed to receive credit.

Short Term Classes
Any course which is less than 17 weeks.

Summer Session
Mini sessions offered during the summer, generally either 6 weeks or 8 weeks in length.

Video Classes
A video class is a college credit course which uses cable television, streaming video, DVDs, and 5-7 campus meetings to deliver instruction. Video classes include video programs, textbooks, assignments, examinations, and class discussion. This type of class allows students to study and complete course work when and where it is convenient for them to do so. Student/Instructor interaction occurs online and at scheduled campus meetings. The course syllabus, other instructional materials, and the streaming video are accessed through the Blackboard online system. Video is also available on cable television and via DVD checkout at the Palomar College San Marcos campus library and some Palomar College sites. Video courses are academically equivalent to traditional campus courses, and satisfy pre-collegiate, elective, or general education requirements toward certificate or A.A. degree programs. For more information, visit www.palomar-tv.com.

Weekend College
Attend classes offered on Friday evening, Saturday and Sunday.

Enrollment Procedures

All new and returning students should submit their application for admission as soon as possible after the date applications are first accepted. Early applications secure earlier enrollment appointments. Check the 2010-2011 college calendar in the front pages of this catalog for the dates applications are accepted or check our web page at www.palomar.edu/admissions for the most current information.

The Class Schedule
Students are informed of the enrollment procedure to be followed in the official Class Schedule for each semester.

Online Enrollment
All students may use Student eServices to enroll. Continuing students have automatic eligibility to enroll. New and returning students are also eligible after submitting an Application for Admission at the main campus or at a College Center or online at www.palomar.edu. All students are issued a unique Palomar user ID number, which will be used for enrolling and all other transactions with Palomar. See the Class Schedule for more information.

Procedure for Adding and Dropping Classes

Adds and drops are processed online through Student eServices until the semester deadline date (see Class Schedule). You may be required to obtain a permission number from the instructor to add a class.

All additions to a student's program must be processed within the first two weeks of classes. Exceptions to this deadline include late-start and open-entry classes.

Official Withdrawal
Students must drop classes by using Student eServices. Refer to "Dates and Penalties" below for any penalties which may be imposed.

Unofficial Withdrawal
Students who simply stop attending class and do not drop through Student eServices have unofficially withdrawn. These students may receive an "F" or "FW" grade in every class they stop attending.

Administrative Withdrawal
Administrative withdrawals may occur for academic or disciplinary reasons, or for non-payment of fees. If the administrative withdrawal occurs after the refund period, the student will not be entitled to a refund or waiver of registration fees.

Dates and Penalties
If a student processes a drop during the first four weeks of a full semester course, or first 30% of a short-term course, no grade will be assigned and no notation will appear on the student's permanent record.

Between the fourth week and the eighth week of a full semester course, or between 30% and 50% of a short-term course, a student may process a drop at his or her discretion and receive a withdrawal (W grade).

After the eighth week of a full semester course, or 50% of a short-term course, only evaluative (A, B, C, D, F, FW) or Incomplete (I) grades shall be assigned.

All students are expected to attend classes. Failure to attend classes can result in an "F" or "FW" grade, unless the student executes a drop within the time periods indicated above. Refer to the 2010-2011 college calendar for specific dates or check our web page at www.palomar.edu/admissions for the most current information.

Petition Appeal Procedure
Students who have verifiable extenuating circumstances may petition to withdraw from a class after the eighth week of a full semester course, or 50% of a short-term course. See "Conditions for Petition to Withdraw" listed under the Grading System in Section 5 of the catalog.

Class Cancellations/Changes

Palomar College reserves the right to cancel any class for which the enrollment is not sufficient to warrant continuation, and to change the class hours and/or days as necessity demands. Students enrolled in classes that are cancelled by the College are entitled to a refund of fees, with no processing charge.

Fees and Expenses

Palomar College is a public California Community College. All students must pay enrollment and health fees; California non-residents and international students must pay non-resident tuition.

Fee Payment Procedure
Students are responsible for paying all mandatory fees. All fees are due at registration. Students who do not pay for their classes may not be dropped, and will still owe enrollment fees. The college will waive or refund enrollmnent fees only when a drop is processed within the first two weeks of a class. Failure to make payments of any amounts owed to the College when they become due is considered sufficient cause to withhold future enrollment, grades, transcripts, diplomas, certificates, and/or degrees. Unpaid fees are subject to collection penalties.

Fees are subject to change; please check the current class schedule for a complete, up-to-date list. All required fees must be paid at the time of registration.

For information on exemptions from fees, please refer to the current class schedule or check with the Financial Aid Office. Active duty military members should contact their Base Education Office for information on tuition assistance.

Auditing Fee
$15 per unit - Refer to Section 5, Auditing a Class, for specific information on selecting audit status. Not considered for BOGW or Financial Aid eligibility.

Classroom Expenses
Students will incur a reasonable amount of general classroom expenses (for example: supplies, materials for homework projects, printing or copying costs). Some classes may require additional expenditures, such as for field trips, admission fees to public attractions or performances. When required, such expenses are generally noted with the respective class in the Class Schedule or class syllabi.

Enrollment Fee
$26 per unit - This mandatory fee is subject to change.

Health Fee
A state-mandated student health fee is charged for operation of the Health Center or Centers as authorized in Education Code 76355. The maximum student health fee allowable will be charged to all part-time and full-time students enrolled in the credit and noncredit classes offered through Palomar College, except the following:

Exempt by law:

- Students taking only apprenticeship classes.
- Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination or organization.
- Dependent children and surviving spouses of members of the California National Guard who are killed or permanently disabled while in active service.

Other exemptions:

- Active military students taking classes only at Camp Pendleton
- Students in Community Development Seminars
- Worksite Education training for company employees only
- Noncredit classes at sites other than at the San Marcos Campus and the Escondido Center

The current Health Fee is $17 for the Fall and Spring semesters and $14 per Summer session. The fee is subject to change.

International Student Capital Outlay Fee
$3 per unit - This is an additional fee for international students only. This fee is subject to change. Please refer to the current class schedule.

Materials Fee
Students may need to provide materials required for a credit or noncredit class. Such materials must be of a continuing value to the student outside of the classroom setting. The materials may be available through the District or may be purchased elsewhere.

Non-Resident Tuition
$185 per unit. California non-residents and international students must also pay all other applicable fees. Please refer to the current class schedule.

Nonsufficient Funds Fee
$20 for each check returned to the College.

Palomar Identification Card
$15 per semester. This card will serve as a picture identification card, and is imprinted with your student identification number which is required for all transactions with Palomar.

Parking Fee
$40 per semester, $20 for students receiving BOGW - Please refer to the current class schedule.

Student Center Fee
$1 per unit up to a maximum of $10 per year - This fee is charged for classes taken at the San Marcos campus only. The funds generated from this fee will finance the construction, enlargement, refurbishing, and operation of a student body center, also known as a Student Union (beginning Spring 1999).

Student Representation Fee
$1 per semester - This fee provides for the support of student representatives who state positions and viewpoints before city, county, and district governments, and before offices and agencies of the state government. A student may refuse to pay the Student Representation Fee for religious, political, financial or moral reasons.

Transcript and/or Verification of Enrollment Fee
Transcript and/or Verification for Past Semester Enrollment
First 2 requests ever: Free
3rd request and up: $5.00 each
Rush service: Additional $5.00 each
Online request: $13.00 each

Non-fee requests include verification of major, degree, and non-enrollment.

Verification for Current Semester Enrollment
Fee requests include verifcation of semester units, overall units, and Military ID.
$5.00 each
Rush service: Additional $5.00 each

Non-fee requests include federal loan deferments.

Refer to Section 5, Official Transcript and Verification of Enrollment, for specific information on requesting transcripts and verifications.

Refunds

Refund Policy for Resident Student Fees
Please see the current class schedule for policy and appropriate dates/deadlines.

Non-Resident and International Student Tuition
Refunds are made only to students who officially withdraw from a class or from the College by the refund deadline. Please see the current class schedule for the appropriate deadline date.

Parking and Materials Fees
Please see the current class schedule for information.

Appeal Procedure
Any appeal of the rules for obtaining a refund of fees above must be made in writing (Petition for Refund) to the Director of Enrollment Services. The appeal must include the reason(s) for requesting an exception, and any available background material to support the reason(s).

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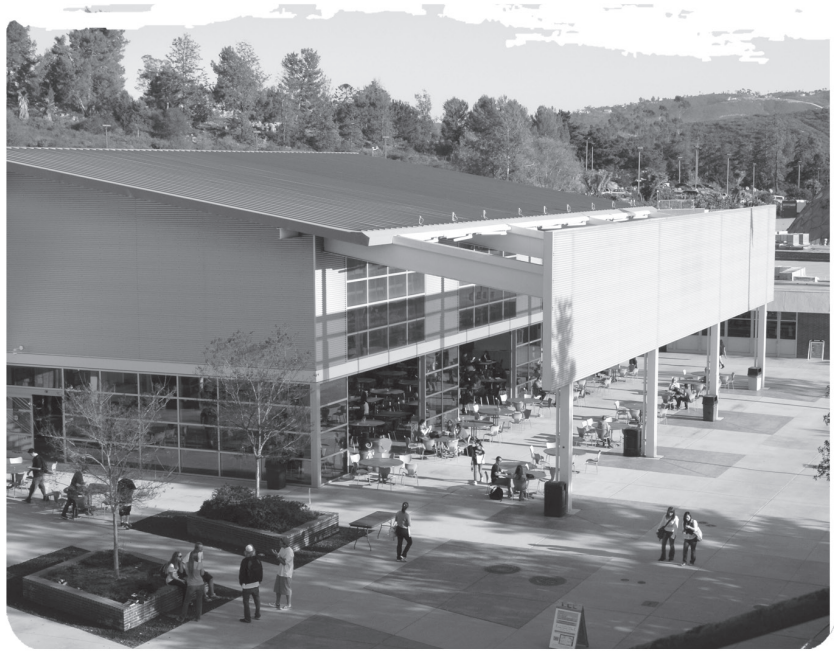
Student Services



Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
Aviation Sciences
e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 3
Student Services

Admissions and Records
SSC-49, Ext. 2164

All students must submit an application for admission in order to attend Palomar College. The admission application permits a student to enroll, and sets up a history for each student. The Admissions and Enrollment area also processes adds, drops, reinstatements, refund petitions, petitions for audit and Pass/No Pass (Credit/No Credit) and accepts requests for transcripts and verifications of enrollment.

The Student Records and Evaluations area is responsible for processing grades and maintaining academic records; maintaining student history information, such as name and social security number changes; processing requests for transcripts; receiving transcripts, test results, etc. from other institutions; processing Petitions for Academic Renewal, Credit by Examination, and Course Repetition; evaluating records and transcripts for graduation and transfer; and enforcing academic regulations.

Articulation Services
SSC-13, Ext. 2528

The Palomar Articulation Officer secures course articulation agreements with colleges and universities throughout California and out-of-state. Students use these agreements to plan their educational programs in preparation for transfer to a four year college or university. Agreements and course requirements are available in the Counseling offices, online at http://www.assist.org , and on the Articulation website at http://www.palomar.edu/articulation/.

Athletics
O-10, Ext. 2460

The intercollegiate athletics program at Palomar College is one of the most comprehensive and diverse among the California Community Colleges, featuring 21 varsity sport programs and over 400 student participants annually. Palomar fields intercollegiate teams in the following men's sports: baseball, basketball, cross country, football, golf, soccer, swimming and diving, tennis, volleyball, water polo, and wrestling. The list of women's sports includes: basketball, cross country, golf, soccer, softball, swimming and diving, tennis, track and field, volleyball, and water polo. Additionally, the Athletic Department oversees a co-educational cheerleading program. Students must meet the eligibility standards of the California Community College Athletic Association in order to represent the institution athletically. Please contact the Athletics Department for more information.

Bookstore Services
SU Bldg., Ext. 2220

The Palomar College Bookstore is a comprehensive operation that provides textbooks, supplemental reading materials, and auxiliary supplies for students and staff.

Textbook services are provided by the bookstore at most Educational Center locations. Check the Class Schedule for exact times and locations. The Bookstore is a lease operation run by Follett Corporation and is responsible for its own income and expenses. Hours of operation for the San Marcos campus during regular semesters are Monday through Thursday 7:30 a.m. to 7:30 p.m. and Fridays 7:30 a.m. to 1:30 p.m. Hours will change during registration; please check the Class Schedule.

Career Services
SSC-24, Ext. 2194

Career Services provides guidance in career selection and goal setting. Resources include an up-to-date computer lab with internet access, a career reference library, job search and training information. Computerized career assessments/inventories are available free-of-charge.

The Career Center offers a one-unit, short-term class each semester, Career Search (Counseling 165). This class consists of four sessions. Students receive one unit of credit after completion.

The Career Center helps with job assistance on an appointment or drop-in basis and career fairs are hosted semi-annually.

The Career Center services are available to Palomar College students, staff and to the community. The Career Center is located in the Student Services Center (SSC) on the San Marcos campus. For more information call (760) 744-1150, ext. 2194 or visit our website at www.palomar.edu/counseling/careercenter.

Cashier Services
A-2, Ext. 2114 & Escondido Center

The Cashier Services Office processes student payments for enrollment, tuition, parking permits, optional fees, holds, and fines. Student discount Sprinter/Breeze passes are available for purchase in the Cashier's Office. For more information about Cashier Services, visit the web site at http://www.palomar.edu/fiscal_services/CashierServices.html.

Children's Center
CCC-1, Ext. 2575

The Child Development Instruction and Services Center is a laboratory preschool program.

The Child Development Instruction and Services Center in San Marcos provides services to approximately 130 children ages 21 months (by June 1st) until they begin kindergarten. The Center receives funding from the California Department of Education and from parent fees. The Center serves children of Palomar College students, faculty, staff, and community members. The Center also serves as a laboratory for students who are Child Development majors. Students are trained in proper room environments, appropriate group experiences, activities, and techniques.

The San Marcos Center is open from 7:00 a.m. to 5:45 p.m., Monday through Friday. Children must be enrolled in a minimum of two days. Enrollment is not available on a drop-in basis. Subsidized services are provided to the children of income-qualified Palomar College students at no or low cost, based on family size and income.

The Escondido Child Development Center has four state preschool programs. These programs are three hours long, five days a week, and are available to 4-year old children of any family within our community

who are low-income and meet the guidelines set forth by the California Department of Education. The programs are funded to provide preschool experiences to all four year old children the year before beginning kindergarten.

Counseling Services

SSC-24, (760) 891-7511

Academic advisement, career guidance, and personal counseling related to academic success are provided in the Counseling Center, located in the Student Services Center. Counseling services are provided according to the needs of each student as described below.

Academic advisement is available to students seeking assistance with scheduling or clarification of requirements for certificates, graduation, or transfer. Inasmuch as careful course selection is a key to a successful college ex-perience and is subject to change, it is wise for students to consult with a counselor each semester.

Career guidance is available in the Career Center, through career classes, and with individual appointments.

Personal counseling is available to students who may seek the assistance of a professional counselor in finding solutions to problems that may be affecting their academic progress. A counselor may also provide further assistance in helping students understand their attitudes, feelings, and academic potential, thereby enabling them to make realistic decisions. Appropriate referrals may also be given.

Assessment and orientation provides students with eligibilities in math, English, and reading. A general overview of the College, its programs and services, and preparation for registration are included.

Disability Resource Center (DRC)

DSP&S Bldg., Ext. 2375

DRC provides special counseling, services and instruction for those with physical, learning, vision, hearing, communication, and psychological disabilities.

The following is available to qualified students: orientation, on-campus transportation, special parking, priority registration, counseling, testing, supportive instruction in English, math, speech/language, reading, and adapted physical education. An adapted computer instruction program provides varied instruction for those with specific disabilities.

Interpreters for the deaf, real-time captioning, readers, notetaking assistance, testing accommodations, mobility assistance, and access to alternative media are also offered.

Special equipment including power wheelchairs, computers, tape recorders, and other equipment are part of the support services offered to students with disabilities.

The DRC program acts as an advocate for students with disabilities representing their interests on campus as well as with various state and local agencies including the State Department of Rehabilitation.

Call the DRC for further information at (760) 744-1150, ext. 2375, or visit our website at www.palomar.edu/dsps.

Extended Opportunity Programs and Services EOPS/CARE

TCA-1, Ext. 2449

EOPS is a state-funded program designed to provide support services and benefits to students who are financially and educationally disadvantaged. CARE, also a state-funded program, assists single parent recipients of TANF/CalWORKs who would like to attend college. These programs offer academic and support counseling, priority registration, four-year college fee waivers, student success workshops, financial aid and other support services. The EOPS/CARE office is located on the San Marcos campus, TCA building. The office is open Monday through Thursday, 8:00 a.m. to 5:00 p.m., and Friday, 8:00 a.m. to 3:00 p.m. Phone: (760) 744-1150 ext. 2449; website www.palomar.edu/eops/.

REACH is Palomar's support program for CalWORKs students. The REACH program serves parents who are attending school as part of their welfare-to-work plan with the county. To be eligible, the student must be a current CalWORKs recipient or have received aid within the last two years. The student must also be working toward a certificate, AA degree, transfer to a four-year university, or to improve work skills.

Benefits include: academic and support counseling, priority registration, student success workshops and work study jobs. The student does not have to be a full-time student to receive benefits. Phone (760) 744-1150, ext. 2449.

Financial Aid, Veterans, and Scholarship Services

Financial Aid & Scholarship Services

SSC-50, (760) 891-7510

Information on options for financial assistance to help minimize the student's financial burden of a college education is available at the Financial Aid & Scholarships Office, or log on to our website at http://www.palomar.edu/fa/. Financial assistance comes in the form of waivers, grants, part-time employment, student loans, and scholarships.

The following is a brief summary of the aid programs available at Palomar College.

Academic Competitiveness Grant (ACG)

This grant is an entitlement awarded to full-time students eligible to receive a Pell Grant. Students must have completed a rigorous academic program.

Board of Governor's Waiver (BOGW)

This program waives the enrollment fee for all eligible California resident students. Application forms are available online at www.palomar.edu/fa. Applications may also be found online through Student eServices.

Cal Grant (Cal B, C)

This is a state-funded program and is awarded to students based on a formula determined by the California Student Aid Commission. The formula includes factors such as income/assets and grade point average. Students must have a minimum enrollment of six (6) units.

Federal Pell Grant
This grant is an entitlement award and usually awarded to low-income students. Students with a Bachelor's Degree are not eligible.

Federal Supplemental Educational Opportunity Grant (FSEOG)
This grant is usually awarded to students who have already been awarded the Pell Grant and have demonstrated high unmet financial need. Students must have a minimum enrollment of six (6) units.

Federal Work Study (FWS)
This program provides part-time employment on campus. The award does not have to be repaid BUT must be earned through employment on campus. Students must have a minimum enrollment of six (6) units.

Institutional Emergency Loans
Short-term emergency student loans are available for students enrolled during the current semester who are receiving Financial Aid (grants, scholarships, etc.) or are student employees and who demonstrate an unexpected emergency need for funds to continue their education at Palomar College. Students must have a minimum enrollment of six (6) units.

Out-of-State Deferment
Out-of-state students may be eligible for a fee deferment that will insure that they will not be dropped from classes for non-payment of fees. If approved, the deferment will be in place until the 8th week of the semester, allowing non-resident students additional time to pay their fees. Students are encouraged to complete their financial aid file as soon as possible to avoid being dropped. If the financial aid file is not complete, an Out-of-State Deferment will not be processed.

Scholarships
Private scholarships sponsored by individuals and organizations are available. Selection criteria and amounts are determined by the donors and vary.
Students are encouraged to call for more information at (760) 744-1150, ext. 7511, log on to our web site at http://www.palomar.edu/fa/scholarships.htm, or stop by our office. Students can apply for a scholarship online by signing in to eServices and selecting "Apply for Scholarship". The Financial Aid, Veterans, and Scholarship Services Office is located in the Student Services Center,

Subsidized William D. Ford Federal Direct Loan
This is a federal student loan program in which the government makes loans available to students to be used for direct educational expenses. The interest rate is variable. Repayment begins six (6) months after the student is no longer enrolled in college or drops below six (6) units of enrollment. The government does not charge interest on the loan while the student is in school.

Veterans' Services

SSC-48, Ext. 2173
The Veterans' Services Office, located in the Student Services Center, provides information on veterans' education benefits and services; helps veterans, dependents and active duty military with applications and forms needed to collect their G.I. Bill benefits.

New students are required to:

1. Complete the Palomar College Application for Admissions.
2. Select a major and make a counseling appointment with the Financial Aid/Veterans' Academic Counselor to obtain an education plan.
3. Register for classes. Students are responsible for paying their registration fees.
4. Pick up a Veterans' Services benefit package from the Veterans' Office.

New students will submit the completed package, along with a copy of their education plan, to the Veterans' Services office after they have registered in their classes.

Continuing students should contact the Veterans' Office prior to the start of each semester to keep their VA payment coming for the next semester. It takes about eight to twelve (8 to 12) weeks for processing of VA Educational claims.

Students are paid VA benefits based on their attendance in classes, and must reapply to Veterans' Services each semester if they wish to receive benefits. Students are required to choose a major and enroll in classes required for that major. Official transcripts from all previous schools, colleges, military training and CLEP tests must be submitted to the College for evaluation before the end of the students first semester of attendance.

Because all courses are not VA approved or payable, students should, prior to registering, contact the Veterans' Advisor for review of their classes. Students cannot repeat courses for VA pay, and must report all changes in their classes and units, including adds and drops both to the Admissions and Veterans' Office.

California Veteran Dependent Exemption (Enrollment Fee Waiver)
The children and spouses of U.S. veterans with service connected disabilities or veterans who have died in service or from service connected disabilities may be eligible for waiver of College fees. The student must complete the BOGW enrollment fee waiver application, attach the VA letter of eligibility and submit it to the Financial Aid, Veterans, and Scholarship Services Office. The Enrollment Fee Waiver covers the school year semesters as follows: fall, spring, and summer. For more information see the Veterans' Services office.

ConAP Program
ConAP, a joint program between the Army and Palomar College, admits new soldiers to the College at the same time they enlist in the Army or Army Reserve. Army recruiters refer new soldiers to the College. Eligible soldiers are admitted, either on a full or provisional basis with enrollment deferred until completion of active military services. For more information contact the VSO or your local Army recruiter.

Servicemembers Opportunity Colleges Consortium
Servicemembers Opportunity Colleges (SOC), established in 1972, is a consortium of national higher education associations and more than 1,700 institutional members subscribe to principles and criteria

to ensure that quality academic programs are available to military students, their family members, civilian employees of the Department of Defense (DoD) and Coast Guard, and veterans. A list of current SOC Consortium member institutions may be found on the SOC web site at www.soc.aascu.org/.

Palomar College provides academic assistance to active-duty personnel which includes program planning and guidance in understanding educational options, acceptance of traditional and nontraditional learning experiences, tutoring, or similar learning opportunities. Courses are offered in the evening, on weekends or other nontraditional time frames, and at the Camp Pendleton Marine Corps base.

SOC Degree Network System
The SOC Degree Network System (DNS) consists of a subset of SOC Consortium member institutions selected by the military Services to deliver specific Associate and Bachelor's degree programs to servicemembers and their families. Institutional members of the SOC DNS agree to special requirements and obligations that provide military students, their spouses and college-age children with opportunities to complete college degrees without suffering loss of academic credit due to changes of duty station.

SOC operates the 2- and 4-year Degree Network System for the Army (SOCAD), Navy (SOCNAV), Marine Corps (SOCMAR), and Coast Guard (SOCCOAST). Palomar College offers SOCNAV and SOCMAR programs. For more information, contact the the Palomar College Camp Pendleton Center at (760) 725-6626.

Social Security Number and Name Match
A Social Security Number is required when applying for federal financial aid (i.e. FAFSA) and an enrollment fee waiver (i.e. BOGW). A student's financial aid record is maintained according to the student's social security number and legal name. All financial aid applicants are required to make sure that their social security number and legal name not only matches with legal documentation but also matches with their student academic records. Mismatches will void your financial aid application.

Food Services
SU Bldg., Ext. 2233
Dining Services offers a variety of options for both students and staff on the Palomar Campus. The Comet Café located across from the Student Union, offers a variety of venues for customers to choose from. Bene Pizza offers freshly baked pizza and Italian specialties, or you can enjoy a fresh sandwich from Subway. The Grille Works provides a selection of favorites, from burgers to Philly Cheese Steaks. World's Fare offers a selection of international favorites and Kettle Classics provides a daily selection of homemade soups and chili. The Comet Café also has an extensive selection of grab-and-go beverages, snacks, and entrees.

Java City located in the Student Union provides our customers with a full service espresso and smoothie bar where you can enjoy your morning coffee or your favorite smoothie. Java City provides extensive grab-and-go selections including salads, sandwiches, and a variety of pastries. Java City also offers a selection of pizza and fresh soup during lunch and dinner hours.

The Snack Shack offers a variety of bottled beverages, coffee, and snacks for both students and staff at both San Marcos and Escondido.

GEAR UP
(760) 290-2785
GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) is a Palomar College educational partnership grant program with the San Marcos Unified School District (SMUSD) and Vista Unified School District (VUSD) and includes: The Boys and Girls Club of San Marcos, San Marcos Chamber of Commerce, Cox Communications, Imagine San Marcos, Padres Unidos, San Marcos Middle School, San Marcos High School, Mission Hills High School, Washington Middle School, Rancho Minerva Middle School, Vista High School, Rancho Buena Vista High School, DreamBuilders, Encuentros, CSUSM, The Kids College, Parent Institute for Quality Education, YMCA, and Vista Chamber of Commerce.

GEAR UP staff work with SMUSD and VUSD students in the classes of 2011 and 2012, parents, teachers, and administration to offer a variety of early academic intervention programs and services, while creating a college-going school culture and helping ALL students to succeed and make plans to pursue higher education.

GEAR UP provides a wide network of support with the involvement of community based organizations, businesses, local colleges and universities, Palomar College students, faculty, and staff. GEAR UP creates innovative programs that help all students within an entire grade level while creating positive changes for student success. Funded through the United States Department of Education, GEAR UP is mandated to create a dollar-for-dollar match through community contributions, college involvement, and in-kind support. The primary objective is to create a seamless education from K-College for students and their parents, and to promote college knowledge early so more students are better prepared for postsecondary education.

GEAR UP has opportunities for student employees (tutors/mentors), volunteers, federal work study students, faculty/staff, and community service learning students to get involved in K-12 education as part of the school day, after school, or with our evening and weekend programs, events, or field trips. Anyone interested should contact Grant Funded Student Programs/GEAR UP at (760) 290-2785, or visit our web site at www.palomar.edu/gearup.

Health Services
SHS Bldg., Ext. 2380
Health Services provides easy access to initial primary care, health education, and wellness programs at the San Marcos campus and the Escondido Center. Physicians, Nurse Practitioners, and Registered Nurses are available daily for students.

Services provided through office visits include physical exams and treatment for non-chronic diseases. Areas of service include respiratory, dermatology, gynecology, family planning, and on-campus accidents or emergencies. Immunizations, TB, vision, hearing, and pregnancy screenings are also provided. Treatment includes prescription and over-the-counter medications and lab tests ordered by the Physician or Nurse Practitioner. Community Referrals are provided for services not available at the clinic.

Health education and wellness programs are offered to promote and enhance healthy lifestyle choices and well being. Wellness Programs occurring throughout the semesters include Sexual Responsibility

Awareness, Breast Cancer Awareness Month, Great American Smoke-Out, Skin Cancer Awareness, Flu Shots, Substance Abuse Awareness, Healthy Heart Month, and Infectious Disease Awareness. Appointments are required for the Physician and Nurse Practitioners, and are preferred for the RN visits.

All currently enrolled students who have paid the Health Center Fee (see GB Policy 5030.3 under Tuition and Fees Schedule) qualify for low-cost or free health services. For San Marcos Campus Health Services, call 760-744-1150 extension 2380; and for Escondido Center Health Services, call 760-432-0624, extension 8105. Health Services web site: www.palomar.edu/healthservices.

International Education

SU-103, Ext. 2167

The Office of International Education specializes in admitting and assisting international students on F-1 and M-1 visas. Palomar College has approximately 200 international students enrolled each year, representing over 30 countries. The Office of International Education administers specialized orientation and assessment sessions for their students, as well as offering assistance with class selection and registration. The office also assists students with immigration advising, housing needs when possible, and a variety of academic and personal issues that may arise during their stay at Palomar.

The office maintains information on TOEFL exams, medical insurance requirements, and foreign credentials evaluation services. For detailed information on international student admission, please refer to Section 2. Admissions and Registration, call the Office of International Education at (760) 744-1150, ext. 2167, or visit our web site at http://www.palomar.edu/internationalstudents.

In addition to services provided to international students, the office is responsible for the membership in the Southern California Foothills Consortium, which offers semester-length study abroad programs in London and Salamanca, Spain. For detailed information on these programs, call the Office of International Education, (760) 744-1150, ext. 2167 or visit our web site at http://www.palomar.edu/studyabroad.

Library Services

LL Bldg., Ext. 2612

The Palomar College Library collection of over 110,000 titles includes books, periodicals, videos, CDs, DVDs and audiocassettes. Patrons have access to a variety of reference material in different formats including microfilm, Internet databases, and printed material. In the Academic Research Lab, located on the 2nd floor, computer access is available to online full-text journal articles and e-books which complement the Library's extensive print magazine, newspaper, and journal holdings. Palomar College students and staff may access these databases from off-campus. Research assistance is available at the Reference Desk for individuals as well as groups. Librarians teach library instruction classes throughout the semester. The Library's online catalog may be searched in-house or off-campus over the Internet. The Library web site is located at http://www.palomar.edu/library/.

At the Circulation Desk on the 2nd floor, services include checkout and return of library material, assistance with fees and holds, missing book searches, and renewals. Information about textbooks, instructor reserves and Interlibrary Loan items are available at this desk. Patrons can also check out videos or DVDs for class assignments. Self-serve photocopiers and equipment for use with audiocassettes, CDs, videos and DVDs are located next to the Circulation Desk.

Audio Visual Services provides portable media and computer equipment for the entire campus as well as sound equipment for special events. A-V staff also offers training and assistance with equipment needs.

Also housed in the library building on the 1st floor are:

Academic Technology ..... ext. 2657
DRC Adaptive Computer Training Center ..... ext. 3081
Tutoring Center ..... ext. 2448

The Ernest J. Allen Library in the Escondido Center offers a full range of academic library services. This branch of the Palomar College Library provides an area for students to read, browse, use computers for research, check out library and ETV class programs, and to photocopy materials. Library instruction classes , Interlibrary Loan, textbooks, and instructor reserve services are available. Intra-library loan provides access to material from the San Marcos campus library. For additional information please call (760) 744-1150, ext. 8113.

The Library also supports a shared-use facility on the Pauma Reservation, the AA'Alvikat Library, (760) 742-1289.

School Relations

SU-1, Ext. 2182

School Relations is coordinated through the Counseling Department. Activities with local high schools and middle schools are planned and conducted on an individual basis to initiate and maintain positive relations. For more information please contact: the Assessment Coordinator/School Relations, (760) 744-1150, ext. 2182, or e-mail Assessment@palomar. edu.

PEER Ambassador Program

The Peer Ambassador Program places Palomar students at local high schools and community events to promote Palomar College. Peer Ambassadors also serve as mentors on campus. For more information please contact: the Assessment Coordinator/School Relations, (760) 744-1150, ext. 2182, or e-mail Assessment@palomar. edu.

Student Affairs

SU-201, Ext. 2594

The Office of Student Affairs is a very valuable resource for students. The Director of Student Affairs is responsible for student co-curricular activities, the Associated Student Government, clubs, student discipline, administration of the District's free speech policy, Student Union usage, and commencement. Students and members of the community can access and post on the Office e-classified ads. The Office of Student Affairs also administers the Gene Jackson Emergency Loan Program and the Textbook Purchase Loan Program for students. All vendors desiring access to the college community must have approval from this office. This office also handles student initiated grievances and enforces the College smoking policy.

Associated Student Government (ASG)
SU-102, Ext. 2689; SU-104, Ext. 3765
The ASG is elected by students taking credit courses. Members of student government represent all students in the shared governance process of the College. ASG is the official means of communication between the students and other organizations of the College.

Inter-Club Council (ICC)
SU-201, Ext. 2594
The ICC is comprised of club representatives from all campus clubs and organizations. Students interested in starting their own club should contact the Office of Student Affairs located in SU-201. "How to Start a Club" information can be found on our website at www.palomar.edu/studentactivities/ and copies are available in SU-201.

Student Activities Office (SAO)
SU-202, Ext. 7509
The SAO provides many valuable services to the students of Palomar College. This is an excellent source of information about the College, student life, and student activities. The SAO produces and renews the Student Activity Card. The Activity Card has many benefits, including, serving as an Identification Card, which is used throughout the campus. The ID card is necessary when using the services of Admissions, Bookstore, Counseling, English Lab, Math Center, Library, Tutoring, Health Services and other Student Service areas. The ID card is also used to track student hours in lab-type classes, and to monitor access to college services. The Student Activity Card/ID is a worthwhile card to have, not only for easy access to Palomar services, including free lock and locker usage, monthly Sprinter Pass discount, food giveaways, discounted movie tickets, but also for great student discounts offered by many of our local businesses. The SAO also assists with information related to alcohol and drug abuse prevention programs and referral services.

Student Participation in Governance
The Palomar College governance structure provides for representation of students. Students are appointed to College committees by the Associated Student Government. For further information call (760) 744-1150, ext. 2594.

Teaching and Learning Center (TLC)

Escondido Center, ESC-500, Ext. 8171
The Teaching and Learning Center (TLC) opened in Palomar College's Escondido Center in August 2009. It provides a place for students to receive tutoring, work on their own, meet with other students or instructors, receive answers to questions, speak to a counselor, or attend workshops. The TLC is designed to be a pleasant working space for students. The TLC has several desktop PCs and Macs as well as laptop PCs and MacBook Pros for students to check out and use in the center.

The TLC is a multi-functional space. The large central area provides students with tables and chairs where they may complete homework or receive tutoring. The central reception area provides visitors with a place to ask questions, make appointments for tutoring or workshops, and check in. Three small offices provide students with a private space to study or to meet with a counselor or instructor. A 30-seat instructional classroom provides instructors a space to conduct workshops for students and/or faculty. The Instructional Classroom has up-to-date technologies: an overhead projector, an Intelliboard, and universal access services for students with disabilities.

Students who have used the TLC describe it as pleasant and comfortable place to study and to receive any assistance they need.

Transfer Center

SSC-24A, Ext. 2552
The Transfer Center provides up-to-date information regarding successful transfer to all four-year universities. Palomar College offers a Transfer Agreement Guarantee (TAG) with 7 of the 9 University of California campuses. For requirements, deadlines, and forms, contact the Transfer Center.

Cross-enrollment processing, applications assistance, and the opportunity to schedule appointments with visiting four-year representatives are some of the services available to assist students.

Students interested in transferring should plan in advance to understand the critical transfer and application procedures and filing periods. For information on transferring visit the Transfer Center website at www.palomar.edu/counseling/transfercenter.

TRIO Programs

Since 1965, America's federally funded TRIO programs have been helping students from low-income families and first generation backgrounds to finish high school, succeed in college, and successfully graduate and/or transfer. These programs help assure that students from disadvantaged backgrounds have the support necessary to enter college and graduate and/or transfer to a four-year postsecondary institution.

There are eight federally-funded TRIO programs nationally, and three are hosted at Palomar College under Grant Funded Student Programs. These are Upward Bound, Student Support Services, and NCEOC (North County Educational Opportunity Center). Visit our web site at www.palomar.edu/grants.

TRIO/Student Support Services
TCB-1, Ext. 2761
TRIO/Student Support Services at Palomar College is designed to provide support services to potential transfer college students and enhance their chances for successful completion as they pursue their baccalaureate degree.

In order to receive assistance through TRIO/Student Support Services, students must be enrolled at Palomar College, need the services of the program, and meet eligibility requirements. Program services include academic advising, tutoring, priority registration, personal, career and transfer counseling, college/university visits, student success workshops, financial aid information, and cultural events. All participants must be either low-income, first generation college, and/or disabled.

For further information call TRIO/SSS at (760) 744-1150, ext. 2761, or email at triosss@palomar.edu or visit our web site at www.palomar.edu/triosss.

TRIO/North County Educational Opportunity Center
ST-26, Ext. 2434 or Escondido Center-6, Ext. 8110
The Palomar College North County Educational Opportunity Center (NCEOC) is a program funded by the U.S. Department of Education. NCEOC staff provides information and advising to qualified adults (low-income and or first generation college) who want to enter or continue attending an adult school (GED program), community college (including ESL, vocational, certificate and degree programs), or other educational institutions (after high school).

The program staff provide academic advisement, career advisement, financial aid information, access to postsecondary tutoring, test preparation, and workshops designed to support student success.

For more information about NCEOC eligibility or to volunteer or do an internship with the program, call (760) 744-1150, ext. 8110, or visit us at: www.palomar.edu/nceoc.

TRIO/Upward Bound
Escondido Center-4, Ext. 8118
TRIO/Upward Bound at Palomar College helps 55 local area high school students be more academically successful in school, while preparing for higher education choices. Participants receive supplemental instruction and tutoring/mentoring in literature, composition, foreign language, mathematics, and science at Palomar College and after school, on Saturdays, and during the summer.

In order to participate in TRIO/Upward Bound, students must be enrolled in the following high schools: San Marcos, Oceanside, El Camino, Escondido, Orange Glen, or San Pasqual. Program services include academic/career advising, tutorial program, college admission assistance, financial aid information, study skills workshops, PSAT/SAT/ACT preparation, college campus visitations, educational/cultural trips, parent workshops, and a summer residential program.

The Upward Bound program hires Palomar College students and staff/faculty to serve as tutors, mentors, and Saturday instructors. Anyone interested should contact the UB office, (760) 744-1150, ext. 8158, or visit us at www.palomar.edu/upwardbound.

Tutorial Services

LL-105, Ext. 2448
The Tutorial Center, located in the Library, first floor, provides help in many academic subjects offered by Palomar College. Students are served on a walk-in basis and must be registered in the course(s) for which they are seeking assistance. Tutors hired to work for the Center are trained in tutoring methods and learning strategies. For more information about this service, contact the Tutorial Center. Refer to www.palomar.edu/tutoring for office hours or call (760) 744-1150, ext. 2448 or email gthomas@palomar.edu.

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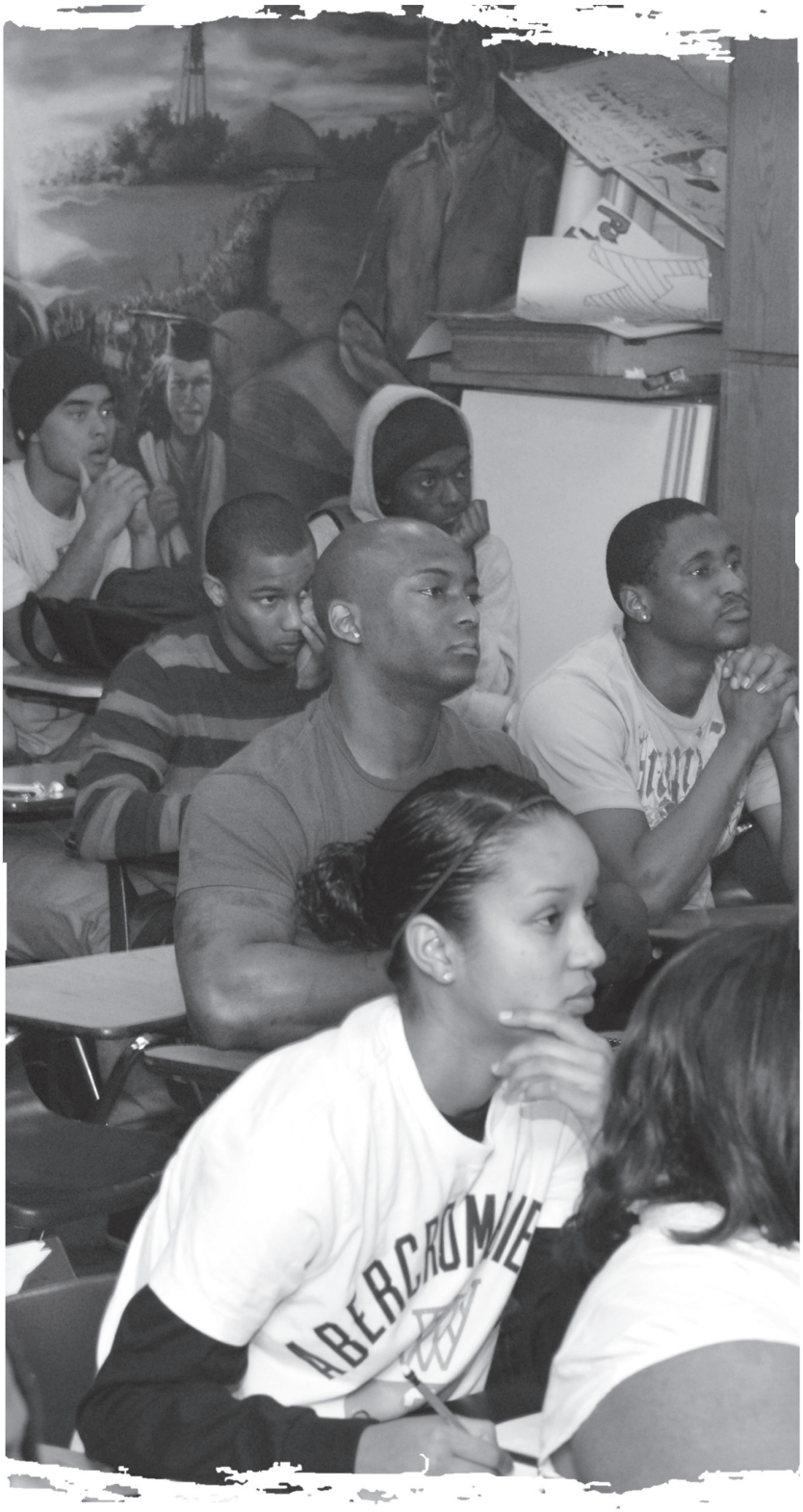
Student Rights and Responsibilities



Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
Aviation Sciences
e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 4
Student Rights and Responsibilities

Each student is responsible for following the rules and regulations in this catalog. Furthermore, each student is responsible for his/her enrollment in classes and for attending classes. The College is not liable if the student fails to read and understand the rules.

Academic Integrity

The Center for Academic Integrity at Duke University* defines academic integrity as a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behavior that enable academic communities to translate ideals into action.

Palomar College is wholly committed to the idea and ideals of academic integrity. We embrace and adopt the definition and related principles of academic integrity provided by the Center for Academic Integrity stated in the paragraph above. Following are the explanations of the five principles as provided by the Center for Academic Integrity and adopted by Palomar College.

1. **Honesty:** Begins with oneself and extends to others. In the quest for knowledge, we must be honest with ourselves and with each other, whether in the classroom, laboratory, meeting, library, or on the playing field.
2. **Trust:** Only with trust can we believe in the research and efforts of others and move forward with new work. Only with trust can we collaborate with individuals, sharing information and ideas without concern that our work will be misappropriated or misused, our reputations diminished, or our academic careers harmed. Only with trust can our communities believe in the social and economic value and meaning of an institution's scholarship and degrees.
3. **Fairness:** Important components of fairness are predict ability, clear expectations, and a consistent and just response to dishonesty. All campus constituencies have a role in ensuring fairness and a lapse by one member of the community does not excuse misconduct by another.
4. **Respect:** Demonstrated by attending class, being on time, paying attention, following instructions, listening to other points of view, being prepared and contributing to discussions, meeting academic deadlines, and performing to the best of our ability. Being rude, demeaning, or disruptive is the antithesis of respectful conduct. We show respect for the work of others by acknowledging our intellectual debts through proper identification of sources.
5. **Responsibility:** Shared responsibility distributes the power to effect change, helps overcome apathy, and stimulates personal investment in upholding academic integrity standards. Being responsible means taking action against wrongdoing, despite peer pressure, fear, loyalty, or compassion. At a minimum, individuals should take responsibility for their own honesty and should discourage and seek to prevent mis conduct by others. Whatever the circumstances, members of an academic community must not tolerate or ignore dishonesty on the part of others.

*The Center for Academic Integrity is affiliated with the Kenan Ethics Program at Duke University in Durham, North Carolina.

Debts Owed to the College

Debts occur when a student fails to repay money borrowed from the College, violates a student financial aid contract, fails to pay tuition and/or enrollment fees, library fines, or bookstore charges. Debts also occur when the student fails to reimburse the College for a returned check, does not return or account for athletic equipment/uniforms, or fails to pay scheduled fees for other services provided by the College. This list of debts is not all inclusive and may include others not specifically listed. If a delinquent debt is sent to the Chancellor's Office Tax Offset Program or another collection agency, a 33% penalty charge will be added to the balance owed.
Palomar College reserves the right to withhold all further services until the debt is paid in full. Grades and transcripts may be withheld until all financial obligations are cleared.

Drugs and Alcohol Policy

It is the policy of the Palomar Community College District to provide, maintain, encourage, and support a drug-free and alcohol-free campus. The commitment of this policy is to education, prevention, rehabilitation, and recovery. An alcohol-free and drug-free campus will promote the safety and health of students, employees, and the public.

All employees and students are clearly and expressly prohibited from the possession, being under the influence, or consumption of alcohol, illegal drugs, or controlled substances on campus, at any school-sponsored event, or while acting within the scope of employment.

The complete Code of Conduct may be found on the Student Affairs web page at www.palomar.edu/studentactivities/, and is also available in the Office of Student Affairs, SU-201.

Parking and Traffic Regulations

Parking Permits
A permit from the College is required for all vehicles on District property. The permit must be placed on the rear-view mirror when parked or, if you have a convertible, a decal may be affixed to the right rear bumper or right rear window and on the left front fork of motorcycles.

Permits may be purchased at the Cashier's Office on the San Marcos campus and at the Palomar College Escondido Center. They may also be purchased online with a credit card via eServices at www.palomar.edu up to two weeks prior to the beginning of the semester. Once payment has been received and the mailing address confirmed, the permit will be mailed to the student. Semester permits are only valid from the date of purchase through the expiration date printed on the permits. Refunds for parking permits are granted during the first two weeks of each semester, and thereafter in cases of unusual circumstances which can be confirmed through appropriate documentation.

BOGW-eligible students may purchase a parking permit at a reduced rate. *Only one discounted permit is allowed per semester. If a regular permit is purchased and the student becomes BOGW eligible at a later date, there will be no refund issued.

Students should only purchase a parking permit through authorized sales channels, and the re-sale of parking permits is prohibited. Students who purchase permits from unauthorized sellers may find

themselves liable for possessing a stolen or counterfeit parking permit. Citations for using lost/stolen or counterfeit permits will be subject to a fine, and the offender may also be referred to the Office of Student Affairs for violation of the Student Conduct Code.

One-day permits may be purchased for $4 (fee is subject to change without further notice) from machines located in lots 3, 5, 9, 12 and the Escondido Center. Permits will be honored in student lots only. A two-hour visitor permit and an *emergency/temporary one-day* (limited to one per semester) student permit may be obtained from the Campus Police Office and the Escondido Center's Police Storefront. These permits are valid for the designated time period, in designated spaces/lots only, and along the roadway where parking is authorized. Overnight parking is not allowed without prior approval from the College Police Department. Violators will be towed at owner's expense and/or cited.

Citations
The Police Department will issue citations to cars that do not display the appropriate parking permits if the cars are parked in spaces designated for handicapped, disabled students, Wellness Center, staff or visitors—this applies to all College parking lots at all times.

Vehicles receiving Palomar College citations have the same legal status as parking citations issued by any other law enforcement agency in California. C.V.C. (California Vehicle Code) and parking permit violations are enforced 24 hours a day/7 days a week. Citations may be satisfied by paying the fine (bail) within 21 days at the San Marcos campus Cashier's Office. Bail will also be accepted by check or money order via U.S. mail (the citation must accompany the bail deposit). Credit card payments may also be made at PayMyCite.com once the citation has been forwarded to the processing center. After 21 calendar days, unpaid citations become delinquent and a late fee equal to the amount of the fine may be assessed. All registered owners are responsible for the citations issued to their vehicle.

Palomar College Police Officers are not authorized to dismiss citations. A formal "Appeals Process" is in place. If you wish to appeal a citation, the forms are available on line at the Police/Parking web page at www.palomar.edu or at the Police Department. The violator shall request the appeal within 21 calendar days of the date of issuance.

Administrative Dismissal of one violation per calendar year may be granted for a "failure to display a valid parking permit" violation. You must show proof of purchase **prior** to issuance (date and time) of the citation. This request will be reviewed by Police Department staff and may be granted at that time. Administrative Dismissals apply equally to all students, faculty and staff members of the Palomar Community College District, and it applies to permit violations only.

For further information regarding citations or regulations, contact the College Police Department at (760) 744 1150, ext. 2289 or view the department web page at www.palomar.edu/police.

Police Department

The Palomar Community College District Police Department was established by the Governing Board of the District effective August 28, 1998. The Palomar College Police Department is a fully accredited and California POST certified police agency. The Police Department employs trained police officers whose authority is the same as all sworn peace officers in California. The Police Department will exercise the power to issue official citations for violations of the law, and in situations requiring it, may arrest violators, taking them into custody and booking them into San Diego County Jail located in Vista. Students and staff are advised to give all members of the Police Department their full cooperation and respect as they carry out their important duties to protect students, faculty and staff while seeking to provide a safe and secure environment on and near District property.

The Clery Act: Right to Know
The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, or Clery Act requires higher education institutions to give timely warnings of crimes that represent a threat to the safety of students or employees, and to make public their campus security policies. It also requires that crime data be collected, reported and disseminated to the campus community and is also submitted to the Department of Education. The act is intended to provide students and their families, as higher education consumers, with accurate, complete and timely information about safety on campus so that they can make informed decisions by providing:

1. Policy Disclosure
2. Records Collection and Retention
3. Information Dissemination

Hard copies of the Clery Act are available at the Police Department offices located on the San Marcos campus and the Escondido Center., and are also available on the Police Department website at www.palomar.edu/police. The Clery Act Report is available to all prospective students and employees upon request. For further information on the Clery Act, please contact the Records Division of the Campus Police Department at (760) 744-1150 Ext. 3977.

Sexual Harassment Policy

It is the policy of Palomar College in keeping with efforts to establish and maintain an environment in which the dignity and worth of all members of the College community are respected, that sexual harassment of students and employees is unacceptable conduct and will not be tolerated.

This policy applies to the unlawful harassment of any student on the basis of sex by any employee of the District including, but not limited to, classroom conditions, grades, academic standing, scholarships, recommendations, employment opportunities, disciplinary action, or any other aspect of College life within the control of the District or its employees.

This policy also applies to the unlawful sexual harassment of any employee with respect to all terms and conditions of employment with the District, including but not limited to hiring, placement, evaluation, promotion, disciplinary action, layoff, recall, transfer, leaves of absence, training opportunities, compensation, work assignments, and hours of work, shifts, or workload.

Employees who violate this policy may be subject to corrective measures and to disciplinary action up to and including termination of employment. Students who violate this policy may be subject to corrective measure, including discipline, up to and including expulsion.

Sexual harassment is a violation of Title VII of the Civil Rights Act of 1964, Title IX of the Education Act Amendments of 1972, and California Education Code Sections 210 through 214, inclusive.

The Assistant Superintendent/Vice President for Human Resource Services is responsible for administering this policy. All questions, concerns, and complaints regarding sexual harassment should be addressed to this position.

Smoking Policy

According to BP-3570, there shall be no smoking permitted in buildings or outside of designated smoking areas which shall be placed at least 20 feet away from buildings at Palomar College. This policy is not intended to affect the working conditions of any Palomar employee. Any questions or concerns related to this policy or enforcement should be directed to the Director of Student Affairs. The existing Student Conduct Code is available online through the Student Affairs web page at www.palomar.edu/studentactivities/, and is also available in the Office of Student Affairs, room SU-201, or call (760) 744-1150, Ext. 2595.

Student Behavior Rules and Regulations

Students at Palomar College are responsible for regulating their own conduct and for respecting the rights and privileges of others. Palomar students are expected to conduct themselves in a manner compatible with the function of the College as an educational institution, and respect and obey all civil and criminal laws. Failure to abide by the standards as set forth by Palomar College is cause for disciplinary action.

Guidelines for student conduct are set forth in the California Education Code, California Administrative Code Title 5, policies of the Board of Trustees, and all civil and criminal codes.

In compliance with California Education Code Section 66300, 72282, and 72292, and in keeping with the above, regulations have been established to effectively and efficiently provide for the approved educational programs, approved student activities, and community services. For further information, contact the Office of Student Affairs, room SU-201, or call (760) 744-1150, Ext. 2594.

Student Conduct Code

At the time of publication, the Student Conduct Code was under revision. The existing policies and procedures will remain in effect until such time as the revisions have been adopted. The existing Student Conduct Code may be found on the Student Affairs web page at www.palomar.edu/studentactivities/, and is also available in the Office of Student Affairs, room SU-201. Upon completion of the revisions and adoption, the new Student Conduct Code will be available in its entirety on the Office of Student Affairs web page, in the Class Schedule, and in the online Student Handbook.

Student Grade Disputes

According to Title 5, Section 55025, "The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetency." Students who wish to dispute a final course grade under the criteria listed above must follow the Student Grade Dispute Policy and Procedures, which can be found on the Office of Instruction website at www.palomar.edu/instruction/. All grade disputes must be initiated within one semester of the grade in question being issued.

Student Grievance Policy

It is the policy of the Palomar Community College District to authorize students to start grievance procedures when the student believes that he/she has been subject to unjust action, or the denial of rights as published in District regulations, state law, or federal laws. Copies of the Student Grievance Policy and Procedures may be found on the Student Affairs web page at www.palomar.edu/studentactivities/, and are also available in the Office of Student Affairs, SU-201. Grade disputes are not a part of the Student Grievance Policy. Please see Student Grade Disputes.

Students' Rights and Privacy of Student Records

Pursuant to CAC Title 5, Section 54606 and subsequent sections, you may request an opportunity to inspect any and all official school records, files, and data related to the student. If information in the file is inaccurate, misleading, or inappropriate, the student may request removal of the information, or include a statement disputing the material that he/she challenges.

Other provisions of the law restrict the people who have access to the information in student records. School personnel with legitimate educational interests, schools of intended enrollment, specified federal and state educational administrators, or those who provide financial aid are entitled to access without the student's consent. Access may also be obtained without your consent pursuant to court order. Parents of minors do have access. Parents of non-minor students do not have access, except when written permission is received from the student.

De conformidad con las leyes federales, cualquier estudiante puede pedir toda copia de su informacion personal (records). Si hay errores en esta informacion, el estudiante puede pedir que estos errores sean corregidos o que la informacion sea removida. El estudiante tambien puede incluir una explicacion disputando la informacion incorrecta. Otras provisiones de la ley ponen limites a personas que tengan acceso a esta informacion personal del estudiante. En ciertos casos, hay personas en instituciones educativas (colegios, universidades, escuelas, etc.) que tienen el derecho legal de inspeccionar esta informacion personal del estudiante. Cuando hay una orden legal de la corte, esta informacion personal del estudiante puede ser inspeccionada. Los padres de personas menores de edad tambien pueden inspeccionar esta informacion. Los padres de personas mayores de edad necesitan tener permiso escrito del estudiante para poder inspeccionar esta informacion confidencial.

Directory information is maintained which includes name, address, telephone number, date of birth, email address, and class schedule information. The College will provide information to:

1. The National Student Clearinghouse for purposes of enrollment verification, degree verifications, and data matching services (for transfer follow-up research)
2. Colleges, universities, or government agencies to promote outreach to students and to enhance transfer
3. The California Student Aid Commission to facilitate the award of financial aid

4. The California Community Colleges Chancellor's Office for research and analysis purposes
5. Prospective employers upon your request. Dates of attendance, program of study, and the degree granted will be provided to an employer only upon request.
6. For law enforcement purposes.

Directory information will not be sold, used for commercial purposes, disclosed to the public, or given to government agencies for the purpose of making benefits determinations (other than for financial aid). If you do not want the College to provide any directory information without your written consent, please notify the Records Office, in writing within thirty (30) days of the start of each semester. If you activate your student email account, it will be displayed in a public electronic address book.

Students who are applying for or receiving student financial aid must disclose their social security number. Also, any student who wants a tuition tax credit form - 1098T to claim income tax credit for tuition and fees on their federal income tax return must provide the social security number.

Todo estudiante que someta una solicitud para recibir ayuda financiera del gobierno federal tiene que usar su numero de seguro social. Tambien, cada estudiante que quiera credito por los gastos de ensenanza en sus impuestos federales tiene que someter al colegio su numero de seguro social.

All health information is confidential, and is not revealed to any person or persons, except those persons in Health Services directly connected with treatment of the student. Instructors, however, will be notified if a student has a health condition that may result in losing consciousness.

Regulations and procedures regarding student records are available in the Records Office, room SSC-54.

Student Right To Know

As a consumer, you have a right to know about your chances of college success. "Student Right-To-Know" (SRTK) refers to a Federally-mandated public disclosure of a college's Completion Rate and Transfer Rate. The intent of SRTK is to provide to the consumer, a statistic of comparable effectiveness that they can use in the determination of college choice.

SRTK is a "cohort" study; that is, a group of students who are first-time freshmen who are enrolled full-time and are degree-seeking is identified in a fall term and their outcomes are measured over a period of time. The outcomes that the two SRTK rates measure are Completion (the total number of students in the cohort who earn either a degree, a certificate, or who successfully completed a two-year-equivalent transfer-preparatory program) and Transfer (the total number of cohort non-completers who were identified as having enrolled in another institution). The tracking period of the cohorts is three (3) years, at which time the SRTK rates are calculated and made public. See http://srtk.cccco.edu/index.asp for further information, as well as for specific college data.

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Academic Regulations and Standards

Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
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Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 5
Academic Regulations and Standards

Academic Policies

Academic Renewal

Palomar College is committed to meeting the educational needs of all its District citizens. Open entry encourages students of varied educational backgrounds to pursue their individual goals. Palomar's commitment to all students increases the likelihood of enrolling those who have failed in the past but who have shown their readiness to try again. To reduce the negative impact of past academic failure and to facilitate fair and equitable treatment of all students in pursuit of their academic goals, Palomar College supports Academic Renewal.

A student may petition for up to thirty (30) units of previous substandard (D, F, FW, NP/NC) course work attempted at Palomar College or any other institution to be disregarded when computing the grade point average (GPA). Academic Renewal is not allowed if course work to be disregarded has previously been used to fulfill degree, certificate, or transfer certification requirements.

Current and potential financial aid students are advised that all units attempted will count in the "total units attempted" limit for financial aid eligibility. Academic renewal does not eliminate units for financial aid purposes.

Procedures

- The student completes a Petition for Academic Renewal with a counselor's assistance. Forms are available from the Counseling or Records Offices. Petitions are submitted to the Records Office.
- The majority of course work in the term(s) under consideration must be substandard, the total GPA of which is less than 2.0; and must no longer reflect the student's current level of performance and capabilities.
- Two years must have passed since attempting the course work to be excluded from GPA calculation.
- The student must have successfully completed 24 semester units since the term(s) to be disregarded, either at Palomar or another regionally accredited college or university.
- The student must have a minimum 2.0 GPA since the time of attempting the course work to be disregarded.
- The petition will be reviewed by Records Office personnel for compliance with policy and procedures. The student will be notified by mail and/or email of the approval or denial of the request.

Academic renewal does not guarantee that other institutions will approve such action. This determination will be made by the respective transfer institution.

Students who have attempted more than thirty (30) units in the terms to be disregarded may submit a Student Petition to the Academic Review Committee for consideration.

Annotation of Permanent Record

It is important to understand that the student's permanent record (transcript), will be annotated in such a manner that all course work will remain legible, insuring a true and complete academic history. Academic Renewal actions are irreversible.

Attendance

Student Responsibilities

The primary responsibility for class attendance and maintaining an accurate registration record rests with the student. Consequently, each student must process all adds or drops to their class schedule and is held responsible for the updating of their Official Study Schedule. To be officially recorded, adds and drops must be submitted by the appropriate deadlines (check deadline dates in the Class Schedule).

Students are expected to attend all sessions of a class in which they are enrolled. Anticipated absences should be reported to instructors in advance in order to complete assigned work by due dates. All other absences should be reported to instructors immediately upon returning to class and any missed course work should be made up. If an emergency requires a long absence and the instructor cannot be reached, students should contact the instructor's department/office.

Faculty Responsibilities

Each faculty member is responsible for informing students in writing of the course content and grading system for each class within the first two class meetings. The instructor has the responsibility for maintaining accurate attendance records in accordance with established procedures.

Prior to the first census, instructors must drop any student identified as a no show (students who registered, but never attended class). An instructor may elect to drop a student for the following reasons: 1) excessive absences, normally defined as more than the number of times the class meets per week; 2) failure to take examinations; 3) failure to complete class assignments.

Auditing a Class

- Permission to audit a class is granted at the discretion of the instructor and with the instructor's and Dean's signed permission.
- An audit student shall not be permitted to change his/her enrollment in the course to receive credit.
- With the instructor's and Dean's signed permission, a credit student may switch his/her enrollment to audit status provided the change is completed prior to the end of the fourth week of class for a full semester course or prior to 30% of a short-term course.
- With the instructor's and Dean's signed permission, a student may enroll in a course for audit at any time during a semester if he/she has not enrolled in that course for credit during the same semester.
- No student will be allowed to register in audit status prior to the first day of class. The first day of class refers to the actual first class meeting.
- Credit students have priority over auditors. If a class closes after an auditor has been admitted, the auditor may be asked to leave to make room for the credit student. Instructor discretion is strongly recommended.

- If a student taking 10 or more units for credit is auditing a class and drops below the 10 unit level, the $15.00 per unit audit fee will be assessed.

Basic Skills Course Limitations

Basic skills or pre-collegiate courses are designed to prepare students for college-level work. Students may be required to enroll in certain basic skills courses if the assessment process indicates they will benefit by this special preparation for college-level courses. A total of 30 units of courses numbered from 1 - 49 are allowed.

Any student who completes a total of 30 units in any combination will be notified and referred to a counselor for educational planning or exceptions to the limits. Basic skills courses may not be used to satisfy general education requirements for an associate degree.

Students who are financial aid recipients are reminded that only 30 units of remedial course work are excluded from the established unit limit for financial aid eligibility.

The following is a list of basic skills courses that are excluded from the established unit limit for financial aid eligibility: English 10; Mathematics 10, 15; Reading 5, 10, 11.

Correct Use of English

Clear and correct use of English, both on tests and on written assignments, is expected of all students.

All students, especially those planning to transfer to a four-year institution, are urged to take a course in English composition as soon as possible.

Course Repetition

Through the petition process, students may repeat courses under the following conditions:

A. The course has been identified in the Catalog as repeatable, and the student has not attempted a course more times than allowed. State law will allow a student to repeat certain activity, performance, and skills courses. Refer to the course description for limitations.
   - Legally mandated training requirement: A condition of continued paid or volunteer employment
   - Repeatable courses: Content differs each time it is offered
   - Activity courses: Qualified courses include physical education courses, or visual or performing arts courses in music, fine arts, theatre, or dance

B. The course is being repeated to alleviate substandard (D, F, FW, or NP/NC) academic work.

C. The course is being repeated due to a significant lapse of time (at least 2 years) or to meet a recency requirement or prerequisite, by approved petition. Repetitions of courses completed with a passing (A,B,C,P/CR) grade are included in this category.
   - Lapse of time may include a student's acceptable level of knowledge in sequentially-based courses such as math, science, or foreign language
   - Recency may include course or program requirements, or another institution's requirements for transfer course work

D. The course is being repeated due to extenuating circumstances, defined as verified cases of accident, illness, or other circumstance beyond the control of the student, by approved petition. Repetitions of courses completed with passing or substandard course work are included in this category.

E. The course is being repeated as a disability-related accommodation as verified through the Palomar College Disability Resource Center (DRC).

Petitions for Course Repetition are available in the Evaluations Office, located in the Student Services Center. Petitions must be approved by the Director of Enrollment Services prior to enrolling in the course to be repeated.

A student, when appropriate, will be blocked from a repetition attempt at enrollment or administratively dropped from a repeated course.

Annotations on the Student Record

The student's permanent record (transcript) will be annotated in such a manner that all course work will remain legible insuring a true and complete academic history.

A. Repeatable Course

A maximum of four enrollments are allowed within all levels of a course that involve a similar primary educational activity (may be multiple enrollments in a single course or multiple courses involving the same primary activity). Legally mandated courses have no enrollment limitation.

Course	Grade	Units	Grd Pts	Units/GPA
ART 135, 136, and 250 may be combined for a total of 4 attempts				
ART 135	B	3.0	9.0	Included
ART 136	B	3.0	9.0	Included
ART 136	A	3.0	12.0	Included
ART 250	A	3.0	12.0	Included
ART 135	F	3.0	0.0	Excluded
ART 135	D	3.0	3.0	Excluded
ART 135	C	3.0	6.0	Included
ART 135	A	3.0	12.0	Included
ART 135	Not allowed to enroll			
ART 136	Not allowed to enroll			
ART 250	Not allowed to enroll			
CSIT 131 may be attempted 2 times				
CSIT 131	D	1.0	1.0	Excluded
CSIT 131	B	1.0	3.0	Included
PE 128 may be attempted 4 times				
PE 128	NP/NC	1.0	0.0	Excluded
PE 128	NP/NC	1.5	0.0	Excluded
PE 128	P/CR	1.5	0.0	Included
PE 128	NP/NC	1.0	0.0	Included
PE 128	Not allowed to enroll			
PE 129 may be attempted 4 times				
PE 129	F	1.0	0.0	Excluded
PE 129	P/CR	1.5	0.0	Included

PE 129	NP/NC	1.0	0.0	Excluded
PE 129	C	1.0	2.0	Included
PE 129	Not allowed to enroll			
PE 150	B	1.0	3.0	Included
PE 150	A	1.0	4.0	Included
PE 150	P/CR	1.0	0.0	Included
PE 151	A	1.0	4.0	Included
PE 151	Not allowed to enroll			

B. Alleviate Substandard Academic Work

A maximum of two repetitions are allowed for a total of three enrollments.

Course	Grade	Units	Grd Pts	Units/GPA
MATH 60	D	4.0	4.0	Excluded
MATH 60	B	4.0	12.0	Included
MATH 60	D	4.0	4.0	Excluded
MATH 60	FW	4.0	0.0	Excluded
MATH 60	F	4.0	0.0	Included
MATH 60	Not allowed to enroll			

C. Significant Lapse of Time/Recency Requirement

A maximum of one repetition is allowed for a total of two enrollments.

Course	Grd	Units	Grd Pts	Units/GPA
MATH 50	C	4.0	8.0	Excluded
MATH 50	B	4.0	12.0	Included
MATH 50	C	4.0	8.0	Excluded
MATH 50	D	4.0	4.0	Included
MATH 50	Not allowed to enroll			

D. Extenuating Circumstances

A maximum of two repetitions are allowed for a total of three enrollments.

Course	Grade	Units	Grd Pts	Units/GPA
MICR 200	D	5.0	5.0	Excluded
MICR 200	C	5.0	10.0	Excluded
MICR 200	B	5.0	15.0	Included
MICR 200	D	5.0	5.0	Excluded
MICR 200	C	5.0	10.0	Excluded
MICR 200	FW	0.0	0.0	Included
MICR 200	Not allowed to enroll			

E. Disability-Related Accommodation

No limitation on enrollment as long as it facilitates measurable progress in special education courses (the student's disability must be verified through the Palomar College DRC).

Once a course is repeated, a Grade Adjustment form should be submitted to the Records Office (located in the Student Services Center) to update the student's records and grade point average.

For student financial aid eligibility, any course repeated will be counted as "total units attempted."

When a student repeats a course to alleviate substandard academic work, the previous grade and credit shall be disregarded in the computation of the grade point average.

When a student with a disability repeats a course, the previous grade and credit shall be disregarded in the computation of the grade point average.

Courses that are repeated shall be recorded on the student's permanent academic record using an appropriate symbol.

Nothing can conflict with Education Code Section 76224 pertaining to the finality of grades assigned by instructors or with Title 5 or District procedures relating to retention and destruction of records.

Credit by Examination

In order to permit students to demonstrate that they have met the objectives of a course through experience in the work place, foreign language proficiency, or some other process outside the conventional academic setting, students may earn credit by receiving a passing grade on an examination administered by the appropriate instructional department/program. The completion of Credit by Examination may require the demonstration of other skills or the completion of assignments in addition to an examination.

Not all courses listed in the catalog may be eligible for Credit by Examination. The determination of which courses in a discipline may be taken by examination is made by that department/program. The Department Chair/Director will determine whether or not a student requesting Credit by Examination is sufficiently well prepared to warrant being given this opportunity. This determination is based upon a review of previous course work or experience.

Students wishing to take a course through Credit by Examination are encouraged to informally discuss the matter with the Department Chair/Director and instructor prior to initiating the formal process.

All steps must be completed in the order listed or the Petition for Credit by Examination shall not be processed. The Petition for Credit by Examination must be completed prior to the end of the current semester or session.

Determination of Eligibility to Take the Examination:

- The student must be currently registered in the District and in good standing
- The course is listed in the Palomar College Catalog
- No more than 15 units have been earned through Credit by Examination
- Not currently enrolled in the course to be challenged
- Not currently enrolled in, nor received credit for, a more advanced course in the same subject (may be waived by department)

Credits acquired by examination are not applicable to meeting such unit load requirements as Selective Service deferment, Veteran's Benefits, or Social Security Benefits.

Credits acquired by examination shall not be counted in determining the 12 semester hours of credit in residence required for an Associate degree.

Procedures:

- The student obtains a Petition for Credit by Examination from the Records Office.
- The Records Office verifies eligibility and grade basis selection, calculates the enrollment and/or non-resident fees, and places the petition in the pick-up box for the student. This process may take from 2-5 business days depending upon the time of the year.
- The student meets with the Department Chair/Director to receive approval for the petition. If approved, an instructor is assigned to administer the exam and the student makes arrangements to take the exam.
- The student takes the approved petition to the Cashier's Office for payment of fees and receipt. Fees are non-refundable, regardless of the outcome of the exam. BOGW cannot be used for payment of credit by exam fees. Fees must be paid after department approval is granted and before the examination is administered.
- The student submits the approved petition to the instructor administering the exam. The instructor shall record the date of the exam and the grade received, attach the examination materials, and forward the completed petition to the Department Chair/Director.
- The Department Chair/Director shall review and sign the petition and forward it to Instructional Services. Completed examination materials must remain on file in the department/program for three years.
- Instructional Services shall assign a class number for the exam and forward the petition to the Records Office to be processed.
- The Records Office shall post the course and assigned grade to the student's record. The petition shall be retained in the Records Office.

Critical Thinking Statement

The major role of education in America is to produce an individual who can contribute to society as a well-informed member of a democracy. Competence in critical thinking empowers the college student with the ability to distinguish opinion from fact and belief from knowledge. Evaluative skills learned through elementary inductive and deductive reasoning have applications in problem solving in all aspects of everyday existence. Therefore, all examinations, assignments and activities at Palomar College should reflect academic rigor by requiring critical thinking on the part of the student.

Pass/No Pass (Credit/No-Credit) Grading

Pass/No Pass (P/NP) grading is available in the following options:

- Courses in which all students are evaluated on a pass/no pass grading basis
- Courses in which each student may elect to take the course on a pass/no pass grading basis

The decision to change to pass/no pass grading must be made by the end of the fourth week of a full semester course or by the first 30% of a short-term course, after which no other evaluative grade may be given. Application forms are available online or in the Admissions Office. The student must submit the form to the Admissions Office.

A student evaluated on the pass/no pass grading basis will receive both course credit and unit credit upon satisfactory completion of the course. Units attempted for which NP is recorded shall be considered in progress probation and dismissal procedures. P/NP grades are omitted in computing a student's grade point average. Students may repeat a course previously taken for an evaluative grade on a pass/no pass grading basis.

A grade of P is granted for performance that is equivalent to the letter grade of 'C' or better. A student who fails to perform satisfactorily will be assigned an NP grade. The student is held responsible for all assignments and examinations required in the course. The standards for evaluation are identical for all students in the course.

A student may reverse his/her enrollment from Pass/No Pass status to receive an evaluative grade, provided the reversal is completed prior to the end of the fourth week of a full semester course, or prior to 30% of a short-term course.

English 100, 202, and 203 may not be taken on a P/NP basis. Students are advised that four-year institutions may limit the number of pass units acceptable for transfer, and with few exceptions do not allow pass/no pass grading for major prep.

Grading and Transcripts

Student Responsibility

Each student is responsible for his/her registration of classes and for attending classes. Furthermore, each student is responsible for following the rules and regulations in this catalog. The College is not liable if the student fails to read and understand the rules.

Grading System

Grades are assigned by instructors based on class work and tests. The grades assigned are as follows:

Evaluative Grades

Symbol	Definition	Grade Point Value
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Less than satisfactory	1
F	Failing	0
FW	*Failing for unofficial withdrawal	0
P	Passing (At least satisfactory - A, B, C grades. Units awarded not counted in GPA)	
NP	No Pass (Less than satisfactory, or failing - D or F grades. Units not counted in GPA.)	

*For a student who has ceased to participate in a course after the last day to officially drop or withdraw without having achieved a passing grade. The FW grade shall be used in determining academic standing.

Non-evaluative Grades

Symbol Definition

I **Incomplete:** Incomplete academic work for unforeseeable, emergency and justifiable reasons at the end of the term. The condition for the removal of the 'I' is stated on the Record of Incomplete ('I') Grade form. The 'I' is not used in calculating units attempted or for grade points. A final grade

shall be assigned when the stipulated work has been completed and evaluated, or when the time limit for completing the work has expired.

The 'I' must be made up no later than one year following the end of the term in which it was assigned.

IP **In Progress:** The IP is used only in those courses which extend beyond the normal end of an academic term. It indicates that work is "in progress," but that assignment of an evaluative grade must await its completion.

The IP symbol remains on the student record in order to satisfy enrollment documentation. The appropriate evaluative grade and unit credit shall be assigned and will appear in the student's record for the term in which the course is completed. If a student receives an IP in an open-entry, open-exit course and does not re-enroll in the course, or fails to complete the course in the subsequent term, an evaluative grade must be assigned.

RD **Report Delayed:** The RD symbol may be assigned only by the Records Office. It is to be used when there is a delay in reporting the grade of a student due to circumstances beyond the control of either the student or the Records Office. It is a temporary notation which will be replaced by a permanent symbol as soon as possible. An RD is not used in calculating the grade point average.

W **Withdrawal:** The W will not be used in calculating grade point averages, but excessive W's will be used as factors in probation, dismissal, and re-enrollment. Students may not re-enroll in a course in which four W symbols have been recorded on their transcript. Withdrawals during the "no notation" period (see below) will not appear on a transcript.

Full Semester Courses: No notation (W or any other grade) is made on the student record for withdrawals during the first four weeks of a course.

Withdrawal between the fourth and eighth weeks is at the student's discretion, and will result in a W grade recorded on the student's permanent record.

Withdrawal after the eighth week is not permitted. An evaluative (A, B, C, D, F, FW) or Incomplete (I) grade will be assigned. Students who have verifiable extenuating circumstances may petition to withdraw.

Short Term (less than 17 weeks) Courses:

No notation (W or any other grade) is made on the student record for withdrawals during the first 30% of the course.

Withdrawal between 30% and 50% of a course is at the student's discretion, and will result in a W grade recorded on the student's permanent record.

Withdrawal after 50% of a course is not permitted. An evaluative (A, B, C, D, F, FW) or Incomplete (I) grade will be assigned. Students who have extenuating circumstances may petition to withdraw.

MW Military Withdrawal: Members of an active or reserve military service who receive orders compelling a withdrawal from courses will be permitted withdrawal at any time during the semester. Upon verification of such orders, the grade symbol MW will be assigned after the "no notation" period. The MW will not be counted in progress probation or dismissal calculations and will not have any adverse effect on the student academic record or enrollment status. Upon petition, the student will also receive a refund of the entire enrollment fee.

Conditions for Petition to Withdraw

Students who have verifiable extenuating circumstances may petition for an exception to withdraw from a class after the eighth week of a full semester course, or 50% of a short-term course. The student may petition the Director of Enrollment Services for authorization to receive a withdrawal (W) in the following manner:

- A formal petition must be submitted to the Director of Enrollment Services by the student, or the student's representative.
- Proof of the extenuating circumstances being cited as reasons for withdrawal, or unsuccessful course completion, must be submitted.
- The instructor of each course in question must be consulted. In the event the instructor of record cannot be contacted, or is unavailable, the department chair will act on his/her behalf.

Palomar College defines extenuating circumstances as serious and compelling reasons which are limited to the following:

- Illness, hospitalization, or medical reasons
- Employment
- Relocation
- Illness or death of a family member or loved one
- Incarceration

Grade Changes

The Palomar College Governing Board is currently reviewing and revising Board Policy and Administrative Procedures. The Grade Change policy is subject to change through this process.

The instructor of the course shall determine the grade to be awarded to each student. The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetence (Title 5, 55025). Mistake may include, but is not limited to, errots made by an instructor in calculating a student's grade and clerical errors. "Fraud" may include, but is not limited to, inaccurate recording or change of a grade by any person who gains access to student records without authorization.

The removal or change of an incorrect grade from a student's record shall only be done pursuant to Education Code 76232 or by an alternative method which ensures that each student shall be afforded an objective and reasonable review of the requested grade change.

Students who wish to dispute a final course grade under the criteria listed above must follow the Student Grade Dispute Policy and Procedures, available on the Instructional Services web page under Student Forms at www.palomar.edu/instruction/forms2.

No grade placed in a student's academic record may be changed unless the instructor submits a Grade Change form to the Records Office stating the reason for the change as listed above. All changes or modifications to a student's record must be requested no later than one year from the semester in question.

Grades

Final grades are recorded on the student's permanent record at the end of each academic term. Grades are available as soon as the instructor submits the roster and the Records Office posts it, usually about two weeks after the end of the class. Grades may be accessed online through Student eServices. The College web address is http://www.palomar.edu.

Academic Achievement

Dean's List
A student's name may be placed on the Dean's List if the student completes in one semester at Palomar College a total of twelve (12) units with a GPA of at least 3.5 with no grade of D, F, or FW. Pass/No Pass classes are not considered as a part of the 12 units.

Phi Theta Kappa Honor Society
Phi Theta Kappa is an international honor society for two-year institutions, and the sister to the four-year institution's Phi Beta Kappa. The goal of Phi Theta Kappa is to recognize individual talents, needs, and goals.

Initial membership is awarded to those students who have completed a minimum of twelve (12) semester units at Palomar College with a grade point average of 3.5 or better. To sustain membership each student must maintain standards described in the Phi Theta Kappa Omega Rho Chapter Constitution and Bylaws, available in the Student Affairs Office, SU-201.

Students interested in becoming a member of Phi Theta Kappa should contact the Student Affairs Office, SU-201.

Probation, Dismissal, and Reinstatement

It is the intention of the Palomar Community College District to encourage matriculating students to make satisfactory academic progress toward their individual educational goals. Students taking courses for credit should do so with the intention of completing the course or courses with a passing grade. Students who do not make satisfactory progress are subject to probation or dismissal in accordance with established District procedures.

Standards for Probation
Academic and Progress Warning and Probation are calculated for the fall and spring semesters on the basis of the student's enrollment. Summer grades are included in overall calculations for the fall and spring semesters.

Warning and Probation are posted on the student's permanent record. To remain in good standing at Palomar College, students must maintain a minimum cumulative grade point average (GPA) of 2.0 (C), and must complete more than 50% of the units in which they have enrolled.

Academic Warning
Students will be placed on academic warning when they have:

- Attempted at least 12 graded units; and their
- Cumulative (overall) GPA falls below 2.0

Academic Warning Continued
Students will be continued on academic warning when:

- Cumulative (overall) GPA is below 2.0, and
- Semester (term) GPA is at least 2.0

Progress Warning
Students will be placed on progress warning when they have:

- Attempted at least 12 units; and their
- Cumulative (overall) units with grades of W, I, NP, or NC reaches or exceeds 50% of all units attempted

Progress Warning Continued
Students will be continued on progress warning when:

- Cumulative (overall) attempted units with W, I, NP, or NC grades continue to be 50% or more of all attempted units; and
- Semester (term) attempted units with W, I, NP, or NC grades are below 50%

Academic Probation
Students will move to academic probation if:

- Cumulative (overall) GPA is below 2.0, and
- Semester (term) GPA is below 2.0

Academic Probation Continued
Students will be continued on academic probation when:

- Cumulative (overall) GPA is below 2.0, and
- Semester (term) GPA is at least 2.0

Progress Probation
Students will move to progress probation if:

- Cumulative (overall) attempted units with W, I, NP, or NC grades continue to be 50% or more of all attempted units; and
- Semester (term) attempted units with W, I, NP, or NC grades are also at 50% or more of all attempted units

Progress Probation Continued
Students will be continued on progress probation when:

- Cumulative (overall) attempted units with W, I, NP, or NC grades continue to be 50% or more of all attempted units; and
- Semester (term) attempted units with W, I, NP, or NC grades are below 50%

Students on Probation are required to meet with a counselor to complete an educational plan, and are expected to participate in prescribed strategies and/or support services. An enrollment hold will be placed on the student's records blocking registration until they have met with a counselor.

Removal from Probation
A student on Academic or Progress Probation shall be removed from probation when the student's overall grade point average at Palomar College has improved to 2.0 or higher and their number of completed units reaches more than 50% of all attempted units.

Standards for Dismissal
For the purpose of dismissal, semesters shall be considered consecutive on the basis of the student's enrollment, so long as a break in the student's enrollment does not exceed one full primary term.
A student on dismissal status is ineligible to participate in any Palomar College classes or student activities until the requirements for dismissal have been fulfilled. Dismissal is posted on the student's permanent record.

Academic Dismissal
A student who is on academic probation shall be subject to dismissal if the student earned a cumulative and semester GPA below 2.0 in all units attempted in each of three consecutive semesters.

Students who begin the spring semester on academic probation will be dismissed if they fail to achieve a minimum semester GPA of 2.0 at the end of the spring term.

Progress Dismissal
A student who is on progress probation shall be subject to dismissal if the student's cumulative and semester percentage of all enrolled units with W, I, or NP/NC grades reaches or exceeds 50% percent in each of three consecutive semesters.

Students who begin the spring semester on progress probation will be dismissed if they fail to complete more than 50% or their spring semester course work with grades other than W, I, NP, or NC at the end of the spring term.

Notification of Probation and Dismissal
The Admissions and Records Office shall make every reasonable effort to notify a student of probation or dismissal at or near the beginning of the semester in which it will take effect, but in any case, no later than the start of the next fall semester. A student removed from probation or reinstated after dismissal shall be notified as soon as possible.

Reinstatement after Dismissal
Students who have been dismissed for academic and/or progress reasons are eligible to return after one semester by petition to the Academic Review Committee. For further information, please stop by the Evaluations Office in the Student Services Center. Students who are dismissed lose their continuing student status and must re-apply to the College.

Students who believe their dismissal should be put aside after being notified must immediately petition the Academic Review Committee. Students must meet with a counselor to initiate the petition process. Petitions may be approved due to extenuating circumstances such as verified cases of accident, illness, or other circumstance beyond the control of the student.

Financial Aid Disqualification/Ineligibility

Current financial aid students will be disqualified from receiving financial aid if they fail to meet the Financial Aid Satisfactory Academic Progress Policy established by the Financial Aid, Veterans, and Scholarship Services Office in compliance with federal regulations. In addition, financial aid students will be disqualified automatically from receiving further financial aid when placed on Academic or Progress Probation by the College.

Potential financial aid students who are placed on Academic or Progress Probation by the College will be automatically ineligible for financial aid.

Students are advised that they may submit a Petition for Financial Aid to the Financial Aid, Veterans, and Scholarship Services Office. More detailed information on the Financial Aid Satisfactory Academic Progress Policy is also available on our web page, http://www.palomar.edu/fa/.

Veteran Disqualification

For a veteran student, if the cause for probation has not been removed at the end of two consecutive semesters on academic or lack-of-progress probation, the Veterans' Services Office is required to notify the Department of Veterans Affairs (DVA). Please check with the Veterans' Services Office for details, or see our web page at http://www.palomar.edu/veterans/.

Official Transcript and Verification of Enrollment

In the interest of the student who desires to continue studies elsewhere, upon request the College issues an official transcript. The transcript is a duly certified record of all work completed or undertaken by the student at Palomar College, which is forwarded directly to another institution designated by the student.

Official transcripts may be requested through eServices, the Internet, in person, or by mail. Verifications of enrollment may be requested through the Transcript Office. The first two transcripts and/or verifications of past semester enrollment ever issued to/for the student are furnished free of charge upon request. Rush requests are processed within two (2) business days upon receipt of written request for both pick-up and mail service. If requesting rush transcripts and/or verifications by mail, please write "Rush" on the outside of the envelope. Refer to Section 2, Fees and Expenses, Transcript and/or Verification of Enrollment Fee, or see the Enrollment Services web page, http://www.palomar.edu/admissions/transcript.htm, for more information.

High school and college transcripts which are submitted by other institutions to the Records Office become the property of Palomar College and are not forwarded to other institutions.

Transcripts are sent only upon the written request of the student. Seven to ten (7-10) business days are generally required for normal processing of transcripts. We cannot insure delivery of transcripts to the recipient. You will be charged for each transcript processed according to our records.

Transfer Credits from Other Sources

Palomar College is not the custodian of transcripts/test scores from other institutions. If you have not attended Palomar for one year, any records sent from other institutions may be destroyed.

Credit from Other Colleges
It is the policy of Palomar College to grant credit for most courses taken at regionally accredited (Associations of Colleges and Schools) institutions of higher learning. Credit earned at a time when an institution was a candidate for accreditation may be accepted. Official transcripts must be on file with the Records Office. Hand-carried

official copies of transcripts are accepted provided they are received in sealed envelopes.

Transfer credits from institutions using the quarter system shall be evaluated as follows: each unit of work at a quarter system is equivalent to two-thirds of a semester unit (i.e., 3 quarter units equals 2 semester units).

Non-Traditional Credit
Non-traditional credit may be used to satisfy general education requirements, elective requirements, or major course requirements. A maximum combined total of 48 non-traditional units will be granted. Palomar College will not grant non-traditional credit for non-degree applicable course work.

Advanced Placement Examinations (AP)
Palomar College grants Advanced Placement (AP) credit toward its Associate in Arts degree, and CSU and IGETC certification patterns to high school students who attain scores of 3, 4, or 5 on the Advanced Placement Examinations of the College Board.

Students may earn a minimum of 3 semester units of credit for each exam satisfactorily passed. See a counselor for specific information regarding the awarding of credit. Students intending to transfer to a four-year institution should consult a counselor or the individual university regarding its AP credit policy.

To receive credit, students must submit an official AP transcript to the Records Office. For information on obtaining a transcript, contact the College Board. Information is available on the web at http://www.collegeboard.com.

AP Exam	Min. Score	Palomar Equivalent	CSUGE Area	IGETC Area*
Art History	3	ART 165, 166	C1 or C2	3A or 3B
Biology	3	BIOL 100	B2, B3	5B w/lab
Calculus AB	3	MATH 140	B4	2A
Calculus BC	3	MATH 140, 141	B4	2A
Chemistry	3	CHEM 110/110L	B1, B3	5A w/lab
Chinese Lang/Culture	3	NE, Area C	C2	3B & 6A
Computer Sci A	3	CSCI 110	N/A	N/A
Computer Sci AB	3	CSCI 210	N/A	N/A
Economics, Macro	3	ECON 101	D2	4B
Economics, Micro	3	ECON 102	D2	4B
English Lang/Comp	3	ENG 100	A2	1A
English Lit/Comp	3	ENG 100, 205	A2 & C2	1A or 3B
Environmental Sci	3	NE, Area B	B1, B3	5A w/lab
French Language	3	FREN 201	C2	3B & 6A
French Literature	3	FREN 202	C2	3B & 6A
Geography, Human	3	GEOG 105	D5	4E
German Language	3	GERM 201	C2	3B & 6A
Gov't & Politics, Comp	3	POSC 110	D8	4H
Gov't & Politics, U.S.+	3	NE, Area D	D8	4H
History, European	3	HIST 105, 106	C2 or D6	3B or 4F
History, U.S.#	3	HIST 101, 102	D6	3B or 4F
History, World	3	HIST 107, 108	C2 or D6	3B or 4F
Italian Lang/Culture	3	ITAL 201	C2	3B & 6A
Japanese Lang/Culture	3	JAPN 201	C2	3B & 6A
Latin Literature	3	NE, Area C	C2	3B & 6A
Latin: Vergil	3	NE, Area C	C2	3B & 6A
Music Theory	3	MUS 105	C1	N/A
Physics B	3	PHYS 101	B1, B3	5A w/lab
Physics C (Mech)	3	PHYS 120	B1, B3	5A w/lab
Physics C (Elec/Mag)	3	PHYS 121	B1, B3	5A w/lab
Psychology	3	PSYC 100	D9	4I
Spanish Language	3	SPAN 201	C2	3B & 6A
Spanish Literature	3	SPAN 202	C2	3B & 6A
Statistics	3	MATH 120	B4	2A

NE No Equivalent

* A maximum of one course may be used for each AP exam on the IGETC

\+ Must also satisfactorily complete HIST 102 in order to fulfill the American History and Institutions Requirement

\# Must also satisfactorily complete POSC 102 in order to fulfill the American History and Institutions Requirement

Note: Please see a counselor for specific information regarding AP exam placement and credit awarded.

College Level Examination Program (CLEP)
Palomar College grants credit for successful completion of certain College Level Examination Program (CLEP) examinations to students who attain satisfactory scores. Credit is applied only toward the Associate in Arts degree.

Students may earn a minimum of 3 semester units of credit for each exam satisfactorily passed. See a counselor for specific information regarding the awarding of credit. Students intending to transfer to a four-year institution should consult a counselor or the individual university regarding its CLEP credit policy.

To receive credit, students must submit an official CLEP transcript to the Records Office. For information on obtaining a transcript, contact the College Board. Information is available at http://www.collegeboard.com.

CLEP Exam	Min. Score	Palomar Equivalent	Credit	AA GE Area
American Government @	50	NE	3	Area D
American Literature	50	ENG 225, 226	6	Area C
Analyzing/Interpreting Literature	50	ENG 205	3	Area C
Biology (without lab)	50	BIOL 101	3	Area B
Calculus	50	MATH 140	5	Area A2
Chemistry (without lab)	50	CHEM 110, 115	6	Area B
College Algebra	50	MATH 110	4	Area A2
College Composition	50	ENG 100	4	Area A1
College Mathematics	50	MATH 100	3	Area A2
English Literature	50	ENG 210, 211	6	Area C
Financial Accounting +	50	ACCT 103	4	N/A
French Lang, Level 1	50	FREN 101	5	Area C
French Lang, Level 2	59	FREN 101, 102	10	Area C
German Lang, Level 1	50	GERM 101	5	Area C
German Lang, Level 2	60	GERM 101, 102	10	Area C
Human Growth/Development	50	PSYC 110	3	Area D
Humanities	50	HUM 100, 101	6	Area C
Info Systems/Computer Appl	50	CSIT 105	3	Area A2 or E
Introductory Business Law +	50	BUS 115	3	N/A
Intro to Educational Psychology +	50	NE	3	N/A

Introductory Psychology	50	PSYC 100	3	Area D
Introductory Sociology	50	SOC 100	3	Area D
Natural Sciences	50	NE	6	Area B
Precalculus	50	MATH 135	5	Area A2
Principles of Macroeconomics	50	ECON 101	3	Area D
Principles of Management +	50	BMGT 101	3	N/A
Principles of Marketing +	50	BUS 155	3	N/A
Principles of Microeconomics	50	ECON 102	3	Area D
Social Sciences/History	50	NE	6	Area D
Spanish Lang, Level 1	50	SPAN 101	5	Area C
Spanish Lang, Level 2	63	SPAN 101, 102	10	Area C
U.S. History I #	50	HIST 101	3	Area D
U.S. History II ^	50	HIST 102	3	Area D
Western Civilization I	50	HIST 105	3	Area C
Western Civilization II	50	HIST 106	3	Area C

NE No Equivalent

@ Combined with HIST 101 and POSC 120 or HIST 102 will meet the AH&I requirement (grades of 'C' or better)

Combined with POSC 102 or POSC 101 and 120 will meet the AH&I requirement

^ Combined with POSC 102 will meet the AH&I requirement

\+ Elective credit articulated with Palomar course work may be used for Palomar majors

Note: Please see a counselor for specific information regarding CLEP test placement and credit awarded.

Defense Activity for Non-Traditional Education Support (DANTES)

Palomar College may award credit for successful completion of certain DSST exams to students who attain satisfactory scores. Credit is applied only toward the Associate in Arts degree.

The College is guided by the credit recommendations of the American Council on Education (ACE). To receive credit, students must submit an official DANTES transcript to the Records Office. For information on obtaining a transcript, visit the DANTES website. Information may be found at http://www.dantes.doded.mil under Examination Programs.

DSST Exam	Min. Score*	Credit	AA GE Area
Art of the Western World	48	3	Area C
Astronomy	48	3	Area B
Business Mathematics	400/48	3	Area A2
Criminal Justice	400/49	3	N/A
Environment and Humanity: The Race to Save the Planet	46	3	Area B
Ethics in America	400/46	3	N/A
Foundations of Education	46	3	N/A
Fundamentals of College Algebra	400/47	3	Area A2
Fundamentals of Counseling	45	3	N/A
General Anthropology	47	3	Area D
Here's to Your Health	400/48	3	Area E
History of the Vietnam War	44	3	Area D
Human/Cultural Geography	48	3	Area D
Human Resource Management	46	3	N/A
Intro to Business	400/46	3	Area E
Intro to Computing	400/45	3	N/A
Intro to Law Enforcement	45	3	Area D
Intro to the Modern Middle East	47	3	Area D
Intro to World Religions	400/48	3	Area C
Lifespan Developmental Psyc	46	3	Area D
Organizational Behavior	48	3	N/A
Personal Finance	400/46	3	Area E
Physical Geology	46	3	Area B
Principles of Financial Accounting	47	3	N/A
Principles of Physical Science I	47	3	Area B
Principles of Public Speaking	47	3	N/A
Principles of Statistics	400/48	3	Area A2
Principles of Supervision	400/46	3	N/A
Substance Abuse	400/49	3	Area E
Technical Writing	46	3	N/A
Western Europe Since 1945	45	3	Area D

*Beginning in 2008, new score scales were introduced with a minimum cut score set at 400 for all updated and new exams.

Any DSST exam listed as an elective may be used for major course work with department approval on a Course Subsitution/Waiver Form.

Note: Please see a counselor for specific information regarding DSST exam placement and credit awarded.

Foreign Course Work

Students who have satisfactorily completed course work from a foreign nation's appropriately accredited university may be able to apply those course credits toward an Associate in Arts degree at Palomar College. Course work must first be evaluated by an approved credentials evaluation agency and then reviewed by Palomar's Evaluations Office. Some course work may also require approval by the Department Chair.

To have foreign course work credits evaluated, students should contact one of the approved credentials evaluation agencies. A list is available in the Evaluations Office. Request a detailed equivalency report that indicates - for each course - whether it is an upper- or lower-division course, it's U.S. semester equivalency, and the grade the student earned. The Evaluations Office will determine how course work will be applied to requirements.

Please note foreign course work will NOT satisfy general education requirements for English composition and oral communication courses.

International Baccalaureate Examinations (IB)

Palomar College may award International Baccalaureate Examination (IB) credit toward the Associate in Arts degree, or for CSU GE or IGETC transfer certification, to high school students who attain an appropriate score on Higher Level exams. Students intending to transfer to a four-year institution should consult a counselor or the individual university regarding its IB credit policy for major course work.

To receive credit, students must submit an official IB transcript to the Records Office.

IB Exam	Min. Score	AAGE Area	CSUGE Area	IGETC Area
Biology HL	5	B	B2	5B w/o lab
Chemistry HL	5	B	B1	5A w/o lab
Economics HL	5	D	D2	4B
Geography HL	5	D	D5	4E
History HL (any region)	5	C or D	C2 or D6	3B or 4F
Language A1 HL (any language except English)	5	N/A	N/A	3B or 6A
Language A2 HL (any language except English)	5	N/A	N/A	3B or 6A
Language A1 HL (any language)	4, 5*	C	C2	3B
Language A2 HL (any language)	4, 5*	C	C2	3B
Language B HL (any language)	5	N/A	N/A	6A
Mathematics HL	4, 5*	A2	B4	2A
Physics HL	5	B	B1	5A w/o lab
Psychology HL	5	D	D9	4I
Theatre HL	4, 5*	C	C1	3A

*UC requires a minimum score of 5 in order for these examinations to be accepted for credit.

Note: Please see a counselor for specific information regarding IB exam placement and credit awarded.

Military Service Schools
Palomar College may award credit for schools and training completed while in the military. Upon completion of 6 units at Palomar College, students may submit a "Request for Evaluation of Military Service Schools" form to the Evaluations Office in SSC-40. Credit awarded is applied only toward the Associate in Arts degree, usually as elective units. Completion of Basic Training (with a minimum of 181 days of continuous active duty) will meet the Health and Physical Education requirement for the AA degree.

Students may earn up to 48 semester units for military schooling and training. Credit is awarded for work satisfactorily completed at the lower-division baccalaureate and associate degree levels only. Students intending to transfer to a four-year institution should consult with the individual university regarding its military credit policy.

To receive credit, students must submit an official transcript to the Records Office. These may include the following: Sailor/Marine American Council on Education Registry Transcript (SMART); Army and American Council on Education Registry Transcript Service (AARTS); Community College of the Air Force (CCAF) transcript; official transcripts from DANTES/USAFI; or verified copies of DD214 or DD295 military records.

Religious Course Work
Palomar College will not accept any course, even from a regionally accredited institution, that promotes a specific religious doctrine. Courses with a broad philosophical perspective will be accepted. Examples of courses which may be appropriate for general education include The Bible, The New Testament, The Koran, and The Torah, as long as the treatment of these topics is academic and stresses these books as literary works in an historic or philosophic way. We will not accept courses such as Preparing for a Mission, The Baptist Ministry, and Living as a Christian as appropriate for general education or elective units.

Tech Prep
The Tech Prep program awards college credit to high school students who earn an A or B in career-related, "articulated" high school courses. An articulated course is one in which the high school teacher and Palomar College faculty have formally agreed that the high school's course outline, syllabus, textbook, and final exam are comparable to those in a course of the same major at Palomar College.

A Tech Prep student may earn a certificate or associate degree. Tech Prep programs also prepare students for further education leading to baccalaureate and advanced degrees, as well as for direct entry into the workplace as technically skilled employees.

For more information about Tech Prep and 2 + 2 high school course articulation programs contact the Palomar College Tech Prep Coordinator at (760) 744-1150, extension 3047, or in the Career and Technical Education Office in room AA-134.

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Graduation and Transfer Information

Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
Aviation Sciences
e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 6
Graduation and Transfer Information

Palomar College provides occupational as well as general education for the student who plans to complete formal education at the community college level. In addition, the College provides the lower division requirements in general education and in preprofessional majors for those students who plan to transfer to upper division colleges and universities.

To assist the student in educational planning, this section of the catalog describes the graduation requirements for the Associate in Arts degree, the requirements for certificate programs, and information on transfer requirements.

General Education/Institutional Student Learning Outcomes

The General Education Program at Palomar College promotes competence in various fields of knowledge, provides an academic foundation for lifelong learning, and enriches students' lives. As a result of the general education experience, students will demonstrate:

Knowledge of Human Cultures and the Physical and Natural World through

- Study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

  Focused by engagement with big questions, both contemporary and enduring

Intellectual and Practical Skills, including

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Artistic perception
- Quantitative literacy
- Information literacy
- Digital literacy
- Teamwork and problem solving

  Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance

Personal and Social Responsibility, including

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

  Anchored through active involvement with diverse communities and real-world challenges

Integrative Learning, including

- Synthesis and advanced accomplishment across general and specialized studies

  Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems

Associate Degrees

Palomar College offers two types of Associate degrees. Students may earn an Associate in Arts (AA) degree in University Studies, General Studies, or with a major in a career or technical discipline (such as Accounting, Automotive Technology, or Computer and Information Systems,) or an Associate in Science (AS) degree in Registered Nursing.

Associate in Arts (AA) Degree Requirements

I. Minimum Units

The Associate in Arts degree requires completion of a minimum of sixty (60) degree-applicable semester units. Courses numbered 1-49 do not count in the sixty (60) units toward the degree. (See the Course Numbering System and Transfer Identification listing.)

II. Grade Point Average (GPA)

Maintain a cumulative grade point average of 2.0 ('C' average) or higher for all degree-applicable course work attempted. Some specific programs may require a higher grade point average. Refer to the individual Programs of Study for further information. In calculating a student's degree applicable grade point average, grades earned in non-degree applicable courses, numbered 1 – 49, will not be included.

III. Residency

Complete a minimum of twelve (12) semester units in residence as an officially enrolled student at Palomar College.

IV. Major

There are three Associate in Arts degree options, University Studies, General Studies, and Specified Palomar Major. The District and General Education Requirements listed below apply to all options.

Option 1 – University Studies

An Associate in Arts degree that provides completion of a general education transfer pattern inlcuding many, if not all, lower-division major preparation requirements for students transferrring to either the California State University or University of California System. Students may select from ten emphases based on their transfer major.

Requirements

1. Complete the AA Degree District Requirements.
2. Complete the AA Degree General Education Requirements.
3. Complete one University Studies Emphasis selected from the ten options listed on page 267. All courses within the major must be completed with a 'C' or better.
4. Complete electives, if needed, to obtain a minimum of 60 degree-applicable units.

Option 2 – General Studies

Study in general education providing maximum flexibility in program design leading to an Associate in Arts Degree. Students planning to transfer to a four-year institution are cautioned that this curriculum may not provide for completion of the lower division requirements for transfer to a four-year institution.

Requirements

1. Complete the AA Degree District Requirements.
2. Complete the AA Degree General Education Requirements.
3. Complete one General Studies Emphasis selected from the three options listed on page 191. All courses within the major must be completed with a 'C' or better.
4. Complete electives, if needed, to obtain a minimum of 60 degree-applicable units.

Option 3 – Specified Palomar Major

Provides study in general education and an AA degree major designed as preparation for the workplace. Students planning to transfer to a four-year institution may need to meet additional requirements.

Requirements

1. Complete the AA Degree District Requirements.
2. Complete the AA Degree General Education Requirements.
3. Complete the Major Requirements as outlined in the program offerings. All courses within the major must be completed with a 'C' or better.
4. Complete electives, if needed, to obtain a minimum of 60 degree-applicable units.

Contact the Counseling Center at (760) 891-7511, to request an appointment with a counselor for further information about any of the three AA degree options. Official transcripts from all institutions previously or concurrently attended must be on file with the Records Office.

V. District Requirements

1. Competence in Reading and Written Expression
Complete English 100 with a grade of 'C' or better.

2. Competence in Mathematics
Competence may be demonstrated by course completion or examination.

Course Completion:
Complete Mathematics 56 or 60 with a grade of 'C' or better.

Examination (acceptable tests and scores listed below):
Palomar College Assessment Tests
COMPASS: Minimum score of 57 on the college algebra section
CPT: Minimum score of 86 on the college-level mathematics section

National Exams
ACT: Minimum score of 19 on the mathematics section
AP: Minimum score of 3 on the Calculus AB or BC exam
CLEP: Minimum score of 50 on an approved CLEP mathematics examination. See a counselor for a list of approved examinations.
SAT I: Minimum score of 550 on the mathematics section

3. Competence in American History and Institutions/ California Government
Competence may be demonstrated by course completion or examintion.

Course Completion:
Complete one of the following pairs of courses with grades of 'C' or better.
Africana Studies 101 and 102
American Indian Studies 101 and 102
Chicano Studies 101 and 102
History 101 and 102
History 140 and 141
Political Science 101 and 102

Course Completion (Out-of-State/Private Colleges):
Students who have completed course work outside California should consult with a counselor to ensure completion of the three required components.

Examination (acceptable tests and scores listed below):
Palomar College Departmental Exam
Successfully pass the competency test administered by the Economics, History, and Political Science Department.

National Exams
AP: Minimum score of 3 on the American History exam, combined with a 'C' or better in POSC 102.
CLEP: Minimum score of 50 on either of the U.S. History I and II courses combined with a 'C' or better in POSC 102.
SAT II: Minimum score of 550 on the United States History exam combined with a 'C' or better in POSC 102.

4. Competence in Health and Physical Education
Competence may be demonstrated by course completion, examination, or military service.

Option I

Course Completion:
A. Complete Health 100 and 100L with grades of 'C' or better, or
B. Complete equivalent lecture and laboratory course work with grades of 'C' or better. See approved courses below.
Approved lecture courses (minimum of 9 units):
Health/Family & Consumer Sciences 165, or
Biology/Family & Consumer Sciences 185, and
Psychology 100 and
Biology 100 or 101 or 102 or 105 or 106, or Zoology 145 or 200 or 203
Approved laboratory courses (minimum of 1 unit):
Physical Education 125, 127, 128, 129, 130, 135, 136, 150, 151, or
Any Athletics and Competitive Sports (ACS) course, excluding ACS 50, 55, and 197

Option II

Competence Examination (acceptable tests and scores listed below):

Lecture:
Achieve a minimum score of 70% (currently 179 out of 225) on the Palomar College written test covering principles of

nutrition, first aid, cardio-vascular fitness, flexibility, anatomy and physiology, substance abuse, sexually transmitted diseases, and other health-related topics as listed in the Course Outline of Record. This test may be taken only one time in a 3-year period. Contact the PE Department for the testing schedule.

Laboratory:
Participate in a 12-minute run, 20-minute swim, or 30-minute stationary bike test. Students with physical limitations may be required to obtain a physician's approval to take the test.

Jogging (12 minutes)

Age	Men	Women
Under 30	61/2laps	51/2 laps
30 – 39	53/4laps	43/4 laps
40 – 49	41/4 laps	3 laps
50 and over	33/4 laps	23/4 laps

Swimming (20 minutes)

Age	Men and Women
Under 40	1/2 mile
40 and over	1/2 mile (no time limit)

Stationary Bike Test (30 minutes)
Warm-up 5 minutes at 100 watts*, test 20 minutes at required watt output, cool down 5 minutes at 100 watts.

Age	Men	Women
Under 40	175 watts	150 watts
40 and over	150 watts	125 watts

*Watt = energy output by cadence of pedaling (faster pedaling = increased watts)

Option III

Military Service:
United States military personnel and veterans may be awarded four units of credit with proof of 181 days of continuous active duty. Submit copy of forms DD214 or DD295 to the Records Office.

5. Multicultural Requirement

The overall goal of the Palomar College multicultural course requirement is to promote intercultural understanding and communication in local, national, and global contexts. Students may satisfy this requirement by completing a minimum of 3 units from the approved courses listed below.

Course equivalencies from other institutions may be accepted if the course meets the spirit of the Palomar Multicultural Course Requirement and accurately portrays the cultural and racial diversity of our society. Such courses must focus on a study of multiple cultures and include an emphasis on:

- One or more of the following four American subcultures: African-American, Latino/Latina, Asian or Pacific Islander, and Native American, and at least one additional culture from inside or outside of the United States if only one American subculture was included.
- One or more of the following: socio-economic class, age, sexual orientation, different abilities/ableism
- Gender

Students must be sure that the course is on the approved list during the academic year in which it is taken. The courses listed below meet the requirement effective fall 1997, or with the semester noted in brackets. Courses taken prior to fall 1997 may not be used to meet this requirement. These courses may or may not satisfy another institution's multicultural requirement.

Administration of Justice 103
Africana Studies 120 [F98]
American Indian Studies 100, 101, 104 [F09], 105 [F99], 110 [F98], 115, 120, 125, 140, 145, 150, 165 [F99]
American Studies 100, 105 [F07], 200
Anthropology 105, 137 [F08], 140
Architecture 121
Chicano Studies 105 [F98]
Child Development 172 [F08]
Cinema 122 [F08]
Communications 105 [F98]
Counseling 110 [F01]; 120 [F01]
Dance 101 [F98], 102 [F06], 105 [F99]
Economics 115
English 280 [F02]
Family and Consumer Sciences 150 [F98]
Fashion 132 [F98]
History 121 [F99], 130, 140 [F03], 141 [F03], 150 [F06], 151 [F06]
International Business 110 [F05]
Legal Studies 240 [F99]
Multicultural Studies 100 [F98], 165 [F98], 200
Music 102 [F10], 171 [F98]
Nursing 103 plus Nursing 217 [F01]
Nursing 110 plus Nursing 217 [F01]
Paralegal Studies 240 [F99]
Religious Studies 102 [F08], 103 [F08], 110
Sociology 115 [F04], 130 [F08], 200,
Speech 131

VI. General Education Requirements

Because changes may occur in the GE requirements for the AA degree, please check with the Counseling Office for an updated list of acceptable courses. No course may be used to satisfy more than one general education requirement.

A. LANGUAGE AND RATIONALITY

(Complete a minimum of 3 units each from sections 1 and 2)

A1. English Composition
English 100

A2. Communication and Analytical Thinking
Biology 215
Business 110
Computer Science and Information Technology 105
English 202, 203
Mathematics 56, 60, 100, 105, 106, 110, 115, 120, 130, 135, 140, 141, 200, 205, 206, 245
Philosophy 102, 115, 120
Psychology 205
Reading 120
Sociology 205
Speech 100, 105

B. NATURAL SCIENCES
(Complete 3 units from courses listed below)
Anthropology 100, 101
Astronomy 100, 120
Biology 100, 101, 102, 105, 106, 110, 114, 118, 130, 131, 135 185, 200, 201
Botany 100, 101, 110, 115
Chemistry 100, 104, 105, 110, 115, 205, 210, 220, 221
Earth Sciences 100, 115
Engineering 210
Family and Consumer Sciences 185
Geography 100, 110, 115, 125
Geology 100, 110, 120, 125, 150
Microbiology 200
Oceanography 100, 101
Physical Science 100, 101
Physics 101, 102, 120, 121, 200, 201, 230, 231, 232
Psychology 210
Zoology 100, 101, 115, 116, 120, 135, 145, 200, 203

C. HUMANITIES
(Complete 3 units from courses listed below)
Africana Studies 115, 116
American Indian Studies 100, 104, 105, 108A, 108B, 135, 145, 150, 153, 154, 207A, 207B
American Sign Language 100, 101, 110, 205, 206
American Studies 100, 105
Anthropology 135, 155
Arabic 101A, 101B, 102A, 102B, 201A, 201B
Architecture 120, 121, 155
Art 100, 102, 104, 105, 165, 166, 167, 168
Chicano Studies 100, 105, 110, 115, 130, 135, 155
Chinese 101, 101A, 101B, 102, 102A, 102B, 130, 201, 201A, 201B
Cinema 100, 102, 103, 110, 120, 122
Dance 100, 101, 102, 105
English 205, 210, 211, 215, 220, 221, 225, 226, 230, 240, 245, 250, 255, 260, 265, 270, 280, 290
English as a Second Language 101, 102, 103
Fashion 130
Foreign Language 108A, 108B, 207A, 207B
French 101, 101A, 101B, 102, 102A, 102B, 201, 202
German 101, 101A, 101B, 102, 102A, 102B, 201, 202
Graphic Communications 101, 102
History 105, 106
Humanities 100, 101
Interior Design 115, 120
Italian 101, 102, 201, 201A, 201B
Japanese 101, 101A, 101B, 102, 201, 202
Judaic Studies 106
Multicultural Studies 120, 122, 124, 157
Music 100, 101, 102, 103, 170, 171
Philosophy 100, 101, 103, 105, 110, 250
Photography 100, 125
Radio and Television 100
Religious Studies 101, 105, 106, 108, 110, 120, 124
Spanish 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B, 202
Tagalog 101, 102, 201
Theatre Arts 100, 140, 141, 150, 157

D. SOCIAL AND BEHAVIORAL SCIENCES
(Complete 3 units from courses listed below)
Administration of Justice 100
Africana Studies 100, 101, 102, 110, 120, 125, 126
American Indian Studies 101, 102, 110, 120, 125, 130, 140, 165
American Studies 110, 200
Anthropology 105, 107, 110, 115, 125, 126, 130, 137, 140, 150
Chicano Studies 101, 102, 120, 125
Child Development 100, 110, 115
Communications 100, 105
Economics 100, 101, 102, 110, 115
English 150
Family and Consumer Sciences 101
Fashion 132
Geography 103, 105
Graphic Communications-Multimedia and Web 100
History 101, 102, 107, 108, 110, 121 130, 140, 141, 150, 151, 152
Judaic Studies 107
Legal Studies 121, 240
Multicultural Studies 100, 110, 165, 200
Paralegal Studies 121, 240
Political Science 100, 101, 102, 110
Psychology 100, 105, 110, 120, 130, 225, 235
Religious Studies 102, 103, 107, 108
Sociology 100, 105, 110, 115, 120, 130, 200
Speech 120, 131

E. LIFELONG LEARNING AND SELF-DEVELOPMENT
(Complete 3 units from courses listed below)
Alchol and Other Drug Studies 150
Business 100, 136
Child Development 100
Computer Science and Information Technology 105
Counseling 100, 110, 115, 120
Family and Consumer Sciences 105, 136, 150, 165
Health 100, 165
Library Technology 120, 154
Psychology 105, 115, 125, 145, 150
Reading 110
Sociology 105, 125, 130, 145, 150
Speech 115

Associate in Science (AS) Degree Requirements

Palomar College currently only offers an Associate in Science degree in Nursing. Please refer to the Nursing Education discipline for specific information and degree requirements.

Additional Degree Information

Catalog Rights and Continuous Enrollment Criteria

Eligibilty for graduation is determined by catalog rights and continuous enrollment. Students who do not wish to use the catalog in effect at the time they began continuous enrollment should indicate which catalog they wish to use; otherwise, the catalog under which they began continuous enrollment, or the current catalog, will be used.

Continuous enrollment is defined as attendance in one semester or two quarters (excluding summer) within a calendar year (January through December) in the CSU, UC, or California Community Colleges system following initial enrollment at Palomar. A student must have received a letter grade (including "W") in the semesters of attendance to maintain continuous enrollment.

Notice of Intent to Graduate
When all District and General Education Requirements are completed or in progress, students should submit a Petition for Graduation to the Evaluations Office in the Student Services Center, room SSC-40. Petitions are available in the Counseling or Transfer Centers, the Evaluations Office, or online. Deadlines are strictly adhered to; petitions must be submitted no later than the dates listed below.

Spring graduation – February 28th
Summer graduation – June 30th
Fall graduation – September 30th

Second Associate in Arts Degree

1. A student who has received an AA degree, and maintained continuous enrollment, may pursue subsequent AA degrees by fulfilling the major requirements.
2. A student who has received an AA degree, but did not maintain continuous enrollment, may pursue a new program under the catalog of readmission.
3. A student who has received an AA degree, but did not maintain continuous enrollment, may pursue subsequent AA degrees by fulfilling the major, GE, and District requirements under the catalog of readmission.
4. A student with an AA degree from another college must pursue subsequent AA degrees at Palomar by fulfilling the major, GE, and district requirements under the catalog of readmission.

Certificate of Achievement (CA) Requirements

Official transcripts from all previous institutions attended must be on file with the Records Office. Students will be eligible to receive a Certificate of Achievement if they complete the specific course requirements as listed under the majors in the next section of the catalog. In addition to the course requirements, students should be aware of the following guidelines.

1. Fifty percent (50%) of a certificate program must be taken in residence at Palomar College. The remaining courses may be completed at other accredited institutions. Substitutions or waivers must be approved by the appropriate Department Chair/Director.
2. A grade of 'C' or higher must be achieved in all certificate courses except where other grade requirements are specified by law. A Department Chair/Director may waive one (1) 'D' grade with written justification.
3. Equivalent courses from other institutions may be determined by the Evaluations Office with the exception of Water/Wastewater Technology Education. Certificate credits or courses may be substituted or further equivalencies determined with written justification and approval of the Department Chair/Director.
4. Continuous enrollment is defined as attendance in one semester or two quarters (excluding summer) within a calendar year (January through December) in the CSU, UC, or California Community Colleges system following initial enrollment at Palomar. If a student does not maintain continuous enrollment, the evaluation will be based on the requirements in effect at the time of return to Palomar College, or the current catalog.
5. It is the responsibility of the student to ensure satisfactory completion of the certificate requirements. When all requirements are completed or in-progress, students should submit a Petition for Graduation to the Evaluations Office in the Student Services Center, room SSC-40. Petitions are available in the Counseling or Transfer Centers, the Evaluations Office, or online. Deadlines are strictly adhered to; petitions must be submitted no later than the dates listed below:

   Spring graduation – February 28th
   Summer graduation – June 30th
   Fall graduation – September 30th

Conferring of Degrees and Certificates of Achievement
Associate in Arts degrees, Associate in Science degrees, and Certificates of Achievement will be conferred formally at the Commencement Ceremony held in May at the end of each spring semester. However, students will receive their degree or certificate following the close of the semester in which they apply for graduation.

Certificate of Proficiency (CP) Requirements

Certificates of Proficiency are designed to certify basic workplace competencies and job readiness for students who are entering the workforce. In addition to course and certificate requirements, students should be aware of the following:

1. All courses required for each certificate must be taken in residence at Palomar College.
2. A grade of 'C' or higher must be achieved in all certificate courses except where other grade requirements are specified by law.
3. It is the responsibility of the student to ensure satisfactory completion of the certificate requirements. When all requirements are completed or in-progress, students should submit a Petition for Certificate of Proficiency form to the Evaluations Office. Petitions are available in the Counseling Center, Transfer Center, Evaluations Office, or online.
4. Petitions must be submitted no later than:
   Spring deadline – February 28th
   Summer deadline – June 30th
   Fall deadline – September 30th
5. Certificates of Proficiency are not awarded at the Palomar College Commencement Ceremony. Certificates will be mailed to students following the close of the semester in which they apply.

Noncredit Certificate of Completion (CN) Requirements

Noncredit Certificates of Completion are designed to lead to improved employability or job opportunities that prepare a student to progress in a career path or to undertake credit courses. In addition to course and certificate requirements, students should be aware of the following:

1. All courses required for each certificate must be taken in residence at Palomar College.
2. A satisfactory grade must be achieved in all certificate course work.
3. It is the responsibility of the student to ensure satisfactory completion of the certificate requirements. When all requirements are completed or in-progress, students should submit an application for the certificate to the Evaluations Office. Applications are available in the Counseling Center, Transfer Center, Evaluations Office, or online.
4. Petitions must be submitted no later than:
   Spring deadline – February 28th
   Summer deadline – June 30th
   Fall deadline – September 30th
5. Certificates of Completion are not awarded at the Palomar College Commencement Ceremony. Certificates will be mailed to students following the close of the semester in which they apply.

Transfer Planning

Students planning to transfer to a four-year university have a wide variety of options. The California State University (CSU) with 23 campuses, the University of California (UC) with 9 campuses, and 77 private, independent colleges in California provide a wide range of academic programs, physical and academic environments, and social climates. Palomar College offers the equivalent of the first two years of these four-year college and university degrees. Students wishing to pursue any of these educational alternatives should meet with a counselor as early as possible to discuss their educational plan.

Successful transfer planning requires the following steps:

- Selecting an academic/career goal
- Selecting an appropriate major to meet your goal
- Selecting the most suitable college or university
- Developing and completing a course of study in preparation for transfer
- Completing the application process, **it is advisable to apply to more than one university**

Students are encouraged to take advantage of the resources and assistance available in the Transfer Center to successfully complete the steps listed above.

To prepare for transfer, students must decide which campus they will attend through research in the Transfer Center, located in the SSC Building, and consult a counselor for the specific requirements for that particular campus and to create a written educational plan. All colleges and universities have specific admission requirements, and may have course and unit requirements as well as minimum grade point averages that must be met prior to transfer. Four-year colleges and universities require students to complete specific general education requirements and major preparation requirements. Students should complete as many of these requirements as possible before they transfer. Palomar College maintains articulation agreements with many colleges and universities which list courses that satisfy general education requirements and lower division major preparation for transfer.

The California State University (CSU) System

The California System of State Universities and Colleges provides upper-division educational programs for California Community College transfer students.

Palomar College students wishing to transfer to a California State University may choose from the following campuses:

Bakersfield (Q)	California Maritime Academy (S)
Cal Poly, Pomona (Q)	Cal Poly, San Luis Obispo (Q)
Channel Islands (S)	Chico (S)
Dominguez Hills (Q)	Fresno (S)
Fullerton (S)	East Bay (Q)
Humboldt (S)	Long Beach (S)
Los Angeles (Q)	Monterey Bay (S)
Northridge (S)	Sacramento (S)
San Bernardino (Q)	San Diego (S)
San Francisco (S)	San Jose (S)
San Marcos (S)	Sonoma (S)
Stanislaus (4-1-4)	

S = Semester system; Q = Quarter system

Students planning to transfer to a California State University should plan a program to meet the admissions and graduation requirements of the specific institution that they plan to attend. **Due to budget constraints, the CSU System will have reduced enrollment spaces for new students. See a counselor to inquire about individual campus requirements.**

Upper Division Transfer Admission Requirements

Minimum eligibility requirements for admission include the following, but may not be competitive for all campuses and/or majors:

1. Have a college grade point average of 2.0 or better (2.4 for non-California residents) in all transferable college units completed.
2. Are in good standing at the last college or university attended, i.e., you are eligible to re-enroll.
3. Have completed or will complete prior to transfer at least 30 semester units (45 quarter units) of courses which include English Composition, Oral Communication, Critical Thinking, and Mathematics, with grades of 'C' or better in each course.
4. Have a total of 60 CSU transferable units.

Please be advised that these are minimum entrance requirements, and that they do not guarantee admission to any of the 23 CSU campuses. Many CSU campuses are currently requiring completion of all general education courses, as well as completion of all lower division major preparatory course work offered at the community college you are attending. GPA requirements will vary with the applicant pool. **Prospective transfer students are urged to make an appointment with a counselor to begin their transfer planning early.**

Application Filing Periods

All California State Universities use a common admission process. Some campuses require supplemental application materials. Students must apply online at www.csumentor.edu. Most campuses will acknowledge receiving your application within two to four weeks.

Fall Semester or Quarter	2011	October 1, 2010
Summer Semester or Quarter	2011	February 1, 2011
Winter Quarter	2012	June 1, 2011
Spring Semester or Quarter	2012	August 1, 2011

NOTE: Filing an application on time, correctly, and completing the required follow-up steps can make the difference between being accepted or not.

General Education/Breadth Options
All campuses of the CSU system require a minimum of 48 semester units of general education. Thirty-nine of these units may be taken at community colleges. Students may fulfill the lower division general education requirements prior to transfer by completing one of the following three options:

1. The California State University General Education Certification pattern which will fulfill the lower division general education/breadth requirements for all CSU campuses.
2. The Intersegmental General Education Transfer Curriculum which will fulfill the lower division general education/ breadth requirements for all CSU and most UC campuses.
3. The specific lower division general education/breadth requirements of the campus to which they intend to transfer.

The California State University General Education Certification pattern is listed below, and the Intersegmental General Education Transfer Curriculum pattern is listed on page 61. Students should consult a Palomar College counselor to determine which option is best suited for their educational objective.

General Education Certification
Certification is a legal agreement between CSU and community colleges in California to assure that CSU lower division general education requirements have been satisfied.

Upon student request the Evaluations Office at Palomar College will provide certification of appropriate general education course work. Official transcripts from other colleges and universities, Advanced Placement exams, and International Baccalaureate exams must be on file before submitting the petition, and will be reviewed for inclusion in the certification process.

California State University General Education (CSUGE) Requirements

The following is a General Education pattern which will meet all lower-division General Education requirements at any CSU campus.

Minimum Units
A minimum of 39 semester units is required for full certification of lower-division general education requirements.

Grade Point Average
A minimum of 2.00 ('C' average) is required.

Advanced Placement Examinations
Palomar College will accept AP exams toward fulfillment of CSU GE requirements. Please refer to the AP Exam Chart in Section 5 of the catalog for acceptable general education scores and placement. Please see a counselor for AP acceptance toward major preparation and units toward transfer.

Foreign, Military, CLEP Information
Palomar College will not include foreign course work, military training, or CLEP tests on the GE certification. Due to the varying policies in the acceptance of foreign transcripts, military schooling, and CLEP scores, the determination regarding their use is left to the transfer institution.

Petition for Certification
Upon enrollment in final requirements, students should submit a Petition for Graduation/Transfer Certification form to the Evaluations Office in the Student Services Center, room SSC-40. To be eligible for certification, 12 of the required 39 semester units must be completed at Palomar College.

AREA A: ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING

9 units – one course required from each group below. Minimum grade of 'C' required.

A1. Oral Communication
Speech 100
A2. Written Communication
English 100
A3. Critical Thinking
English 202, 203
Philosophy 102, 115, 120
Reading 120
Speech 105

AREA B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING

9 units – one course required from each group below. A lab course must be taken in either group 1 or 2.

B1. Physical Science
Astronomy 100, 105L, 120
Chemistry 100, 104, 105, 110, 110L, 115, 115L, 205, 210, 220, 221
Earth Sciences 100, 115
Geography 100, 100L, 110, 115, 125
Geology 100, 100L, 110, 120, 125, 150, 150L
Oceanography 100, 100L, 101
Physical Science 100, 100L, 101, 101L
Physics 101, 102, 120, 121, 200, 201, 230, 231, 232
B2. Life Science
Anthropology 100, 100L, 101
Biology 100, 101, 101L, 102, 105, 106, 106L, 110, 114, 114L, 118, 118L, 130, 131, 131L, 135, 200, 201
Botany 100, 101, 101L, 110, 115
Microbiology 200
Psychology 210
Zoology 100, 101, 101L, 115, 116, 116L, 120, 135, 145, 145L, 200, 203
B3. Laboratory Activity
This requirement may be met by the completion of any lab course above in B-1 or B-2. The lab and lecture courses must be related subjects. Lab only courses are identified with an 'L' and courses with labs included are underlined.

B4. Mathematics/Quantitative Reasoning
(Minimum grade of 'C' required)
Biology 215
Math 100, 105, 106, 110, 115, 120, 130, 135, 140, 141, 200, 205, 206, 245
Psychology 205
Sociology 205

AREA C: ARTS AND HUMANITIES

9 units – three courses required, with at least one in Arts and one in Humanities.

C1. Arts (Arts, Cinema, Dance, Music, Theatre)
American Indian Studies 104, 105, 135
Architecture 120, 121, 155
Art 100, 102, 104, 105, 165, 166, 167, 168
Chicano Studies 135
Cinema 100, 102, 103, 110, 120, 122
Dance 100, 101, 102, 105
Fashion 130
Graphic Communications 101
Interior Design 115, 120
Multicultural Studies 157
Music 100, 101, 102, 103, 170, 171
Photography 125
Radio and Television 100
Theatre Arts 100, 140, 141, 150, 157

C2. Humanities (Literature, Philosophy, Languages other than English)
Africana Studies 115, 116
American Indian Studies 100, 108A, 108B, 145, 150, 153, 154, 207A, 207B
American Sign Language 100, 101, 110, 205, 206
American Studies 100, 105
Anthropology 135, 155
Arabic 101A, 101B, 102A, 102B, 201A, 201B
Chicano Studies 100, 105, 110, 115, 130, 135, 155
Chinese 101, 101A, 101B, 102, 102A, 102B, 130, 201, 201A, 201B
English 205, 210, 211, 215, 220, 221, 225, 226, 230, 240, 245, 250, 255, 260, 265, 270, 280, 290
English as a Second Language 101, 102, 103
Foreign Language 108A, 108B, 207A, 207B
French 101, 101A, 101B, 102, 102A, 102B, 201,202
German 101, 101A, 101B, 102 102A, 102B, 201, 202
Graphic Communications 102
History 105, 106
Humanities 100, 101
Italian 101, 102, 201, 201A, 201B
Japanese 101, 101A, 101B, 102, 201, 202
Judaic Studies 106
Multicultural Studies 120, 122, 124
Philosophy 100, 101, 103, 105, 110, 250
Religious Studies 101, 105, 106, 108, 110, 120, 124
Spanish 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B, 202
Tagalog 101, 102, 201

AREA D: SOCIAL SCIENCES

9 units – three courses required from at least two disciplines.

D1. Anthropology and Archaeology
Africana Studies 126
American Indian Studies 130, 140
Anthropology 105, 107, 110, 115, 125, 126, 130, 137, 140, 150
English 150

D2. Economics
Economics 100, 101, 102, 110, 115

D3. Ethnic Studies
Africana Studies 100, 101, 102, 110, 120, 125
American Indian Studies 101, 102, 110, 120, 125, 130, 140, 165
American Studies 110, 200
Anthropology 105, 115, 130, 140
Chicano Studies 101, 102, 120, 125
History 150, 151
Judaic Studies 107
Multicultural Studies 100, 110, 165, 200
Religious Studies 107
Sociology 200

D4. Gender Studies
History 130
Psychology 130
Sociology 115

D5. Geography
Geography 103, 105

D6. History
Africana Studies 101, 102
American Indian Studies 101, 110
Chicano Studies 101, 125
History 101, 102, 107, 108, 110, 121, 130, 140, 141, 150, 151, 152
Judaic Studies 107
Religious Studies 102, 103, 107, 108

D7. Interdisciplinary, Social or Behavioral Science
Child Development 100
Fashion 132
Graphic Communicaitons-Multimedia and Web 100
Speech 131

D8. Political Science, Government and Legal Institutions
American Indian Studies 102
Africana Studies 110
Chicano Studies 102
Political Science 100, 101, 102, 110

D9. Psychology
Child Development 110
Family and Consumer Sciences 101
Psychology 100, 110, 120, 130, 225, 235
Sociology 120

D0. Sociology and Criminology
Administration of Justice 100
Africana Studies 120
American Indian Studies 125
American Studies 200
Chicano Studies 120
Child Development 115

Communications 100, 105
Multicultural Studies 200
Psychology 105, 120
Sociology 100, 105, 110, 115, 120, 130, 200
Speech 120

AREA E: LIFELONG LEARNING AND SELF-DEVELOPMENT

3 units – complete one course.

Alcohol and Other Drug Studies 150
Biology 185
Child Development 100
Computer Science and Information Technology 105
Counseling 110, 115, 120
Family and Consumer Sciences 105, 150, 165, 185
Health 100, 165
Library Technology 154
Psychology 105, 115, 125, 145, 150
Reading 110
Sociology 105, 125, 130, 145, 150
Speech 115

AMERICAN HISTORY AND INSTITUTIONS REQUIREMENT

All CSU campuses require completion of American History and Institutions courses. The following courses at Palomar have been approved to meet this requirement. Complete one pair of courses:

Africana Studies 101 and 102
American Indian Studies 101 and 102
Chicano Studies 101 and 102
History 101 and 102
History 140 and 141
Political Science 101 and 102

The University of California (UC) System

The University of California is an integral part of the public education system of California. The campuses of the University of California are located in:

Berkeley (S)	Davis (Q)
Irvine (Q)	Los Angeles (Q)
Merced (S) *	Riverside (Q)
Santa Barbara (Q)	Santa Cruz (Q)
San Diego (Q)	San Francisco (Q) +

S = Semester system; Q = Quarter system
+ San Francisco is primarily for graduate level medical studies

Each campus of the University of California accepts course work from the California Community Colleges system designated as UC transferable at full unit value. Students intending to transfer to the university will find it advantageous to complete their lower division requirements at Palomar College. To prepare for transfer, students must decide which college they will attend through research in the Transfer Center, SSC Building, and consult a counselor for the specific requirements for that particular campus and to create a written educational plan.

Upper Division Transfer Admission Requirements

Minimum eligibility requirements for admission include the following, but may not be competitive for all campuses and/or majors.

1. Complete 60 semester (90 quarter) units of transferable college credit with a grade point average of at least 2.4 (2.8 or higher for non-resident students).
2. Complete the following course pattern, earning a grade of 'C' or better in each course:
   a) Two transferable college courses in English composition
   b) One transferable college course in mathematical concepts and quantitative reasoning
   c) Four transferable college courses chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, and the physical and biological sciences.

Application Filing Periods

The University of California system includes nine campuses. All campuses, except for the San Francisco Medical School, follow similar entrance requirements and use a common application form. However, individual campuses may impose additional entrance criteria for impacted majors and programs. Consult the university catalog, a member of the Palomar College counseling staff, or http://www.assist.org for specific information. Applications may be accessed at http://www.universityofcalifornia.edu.

Berkeley and Merced:	
Fall Semester 2011	Nov. 1 – 30, 2010
All other campuses:	
Fall Quarter 2011	Nov. 1 – 30, 2010
Winter Quarter 2012	July 1 – 31, 2011
Spring Quarter 2012	Oct. 1 – 31, 2011

NOTE: Courses approved for IGETC will meet these admissions requirements for the University of California.

Students may transfer up to 70 UC transferable community college units to the UC. A minimum 2.4 GPA is required for admission, but most of the UC campuses use a 2.8 or higher GPA depending upon the major.

Detailed information on how to make up missing high school subjects is available in the Counseling and Transfer Centers. A complete listing of all Palomar courses which transfer to the UC campuses is available at http://www.assist.org.

General Education/Breadth Options

Each school and college at every UC campus has its own general education/breadth requirements. Students may fulfill the lower division general education/breadth requirements at any UC campus by completing one of the following two options:

1. The Intersegmental General Education Transfer Curriculum (IGETC) which will fulfill the lower division general education/breadth requirements for all UC and CSU campuses.*
2. The specific lower division general education/breadth requirements of the campus to which they intend to transfer.

The Intersegmental General Education Transfer Curriculum follows below and is also listed on the Assist website at http://www.assist.org. Students should consult a Palomar College counselor to determine which option is best suited for their educational objective.

* Use of the IGETC to satisfy lower-division General Education requirements is either not allowed under some circumstances or not recommended for some majors. Consult a counselor regarding these restrictions.

General Education Certification

Certification is a legal agreement between UC and community colleges in California to assure that UC lower division general education requirements have been satisfied.

The entire pattern must be completed prior to transfer. Upon enrollment in final requirements, the student should submit a Petition for Graduation/Transfer Certification form, along with the Advising Guide (signed by a Counselor) to the Evaluations Office. Official transcripts from other colleges and universities, Advanced Placement exams, and International Baccalaureate exams must be on file before submitting the petition, and will be reviewed for inclusion in the certification process.

Transfer Admission Guarantee Programs

Palomar College has transfer admission guarantee programs with seven campuses of the University of California. All of these agreements guarantee admission into the university and some guarantee admission into the major.

Each Transfer Admission Guarantee program varies in regard to eligibility, terms of transfer, minimum grade point average (GPA), etc. Visit the Transfer Center or the Transfer Center web page at http://www.palomar.edu/counseling/transfercenter for additional updated information.

The following is a list of UC campuses with which Palomar College has admission guarantee programs. These Transfer Admission Guarantee programs are referred to as TAGs.

University of California, Davis (UCD)

Palomar College participates in a TAG program with UC Davis, which guarantees admission to the university and to most majors.

University of California, Irvine (UCI)

Palomar College participates in a TAG program with UC Irvine, which guarantees admission to the university and to most majors.

University of California, Merced (UCM)

Palomar College participates in a TAG program with UC Merced, which guarantees admission to the university and to all majors.

University of California, Riverside (UCR)

Palomar College participates in a TAG program with UC Riverside, which guarantees admission to the university and all majors.

University of California, San Diego (UCSD)

Palomar College participates in a TAG program with UC San Diego, which guarantees admission to the university; however, not a guarantee into the major.

UCSD University Link Program

Graduating North County high school seniors are eligible for this program which promotes preparation for guaranteed admission to UCSD. This program links Palomar students with counselors from Palomar and UC San Diego. Contact the Counseling Center for additional information.

University of California, Santa Barbara (UCSB)

Palomar College participates in a TAG program with UC Santa Barbara, which guarantees admission to the university; however, not a guarantee into the major.

University of California, Santa Cruz (UCSC)

Palomar College participates in a TAG program with UC Santa Cruz, which guarantees admission to the university; however, not a guarantee into the major.

Intersegmental General Education Transfer Curriculum (IGETC)

Requirements – UC/CSU

Please read before following the IGETC

The IGETC is a general education pattern which will meet all lower-division general education requirements at all CSU or most UC campuses.

It should be noted that completion of the IGETC is not a requirement for admission to CSU or UC, nor is it the only way to fulfill the lower-division general education requirements of the CSU or UC prior to transfer. Depending upon a student's major and field of interest, the student may find it advantageous to fulfill the CSU general education requirements, or those of the UC campus or college to which the student plans to transfer. Some colleges within the UC system will not accept IGETC. **It is strongly recommended that students consult with a counselor to determine which general education pattern is the most appropriate for them.**

Rules for using the IGETC pattern

1. Upon enrollment in final requirements, the student must submit a Petition for Graduation/Transfer Certification form to the Evaluations Office.
2. All IGETC courses must be completed with a grade of 'C' or better. A 'C-' is not acceptable.
3. UC transfers need not complete the Oral Communication requirement (Area 1, Group C).
4. CSU transfers need not complete the Language Other Than English requirement. It is recommended that CSU transfers complete the U.S. History, Constitution, and American Ideals requirement prior to transfer.
5. Some UC transferable courses have credit limitations. Specific limitations are indicated with the course descriptions in the PC Catalog or available on the assist website at http://www.assist.org.
6. Some UC campuses may not allow use of the IGETC for students who were previously enrolled at a UC campus. See your counselor for these restrictions.
7. Palomar can certify coursework completed at other California Community Colleges provided that it appears on

their IGETC course list. Coursework completed at other colleges and universities may be included with approval from PC faculty and the Evaluations Office. CLEP credit or foreign coursework will not be included on the IGETC certification.

8. Advanced Placement (AP) exams can be used to satisfy many course requirements on IGETC. Please refer to the AP Exam Chart in Section 5 of the catalog or to the Articulation web site (www.palomar.edu/articulation/) for acceptable scores and placement. See a counselor for AP acceptance toward major prep and units toward transfer. Credit will be given for only one course per area.
9. International Baccalaureate (IB) exams can be used to satisfy many course requirements on IGETC. Please refer to the IB Exam Chart in Section 5 of the catalog to the Articulation web site (www.palomar.edu/articulation/) for acceptable scores and placement. See a counselor for IB acceptance toward major prep and units toward transfer. Credit will be given for only one course per area.
10. If transferring to a UC, a high school transcript demonstrating 2 years of the same foreign language with a final grade of 'C' or better will satisfy Area 6. An official high school transcript must be on file with the Records Office.
11. Students wishing to use a course to meet an IGETC requirement must be sure that the course is on the approved list during the academic year in which it is taken. Refer to the statement and semester approval lists following the IGETC pattern.
12. For partial IGETC certification information, make an appointment with a counselor through the Counseling Center.

AREA 1: ENGLISH COMMUNICATION

CSU: 3 courses, 9 semester units
UC: 2 courses, 6 semester units
(1 each from groups A and B)

1A: English Composition
(1 course, 3 semester units)
English 100

1B: Critical Thinking-English Composition
(1 course, 3 semester units)
English 202, 203
Philosophy 115

1C: Oral Communication – CSU only
(1 course, 3 semester units)
Speech 100

AREA 2: MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

(1 course, 3 semester units)

Biology 215
Mathematics 110, 120, 130, 135, 140,141, 200, 205, 206, 245
Psychology 205
Sociology 205

AREA 3: ARTS AND HUMANITIES

(3 courses, 9 semester units)
Three courses required, with at least one from Arts and one from Humanities.

3A. Arts Courses
American Indian Studies 104, 105, 135
Architecture 120, 121
Art 100, 165, 166, 167, 168
Cinema 100, 102, 103, 110, 120, 122
Dance 100, 101, 102,105
Music 100, 101, 102, 170, 171
Photography 125
Theatre Arts 100, 140, 141, 150

3B. Humanities Courses
Africana Studies 115, 116
American Indian Studies 100, 145, 150
American Studies 100, 105
Anthropology 135, 155
Arabic 201A, 201B
Chicano Studies 100, 105, 110, 115, 130, 135, 155
Chinese 130, 201, 201A, 201B
English 205, 210, 211, 215, 220, 221, 225, 226, 230, 240, 245, 250, 255, 260, 265, 270, 280, 290
French 201, 202
German 201, 202
Graphic Communications 102
History 105, 106
Humanities 100, 101
Italian 201, 201A
Japanese 201, 202
Judaic Studies 106
Multicultural Studies 120, 122, 124
Philosophy 100, 101, 103, 105, 110, 135, 136
Religious Studies 101, 105, 106, 108, 110, 120, 124
Spanish 201, 201A, 201B, 202
Tagalog 201

AREA 4: SOCIAL AND BEHAVIORAL SCIENCES

(3 courses, 9 semester units)
Three courses required from at least two disciplines. Cross listed courses, or those which appear in more than one group, may be counted only once.

4A. Anthropology and Archaeology
Africana Studies 126
American Indian Studies 130, 140, 165
Anthropology 105, 107, 110, 115, 125, 126, 130, 140, 150
English 150

4B. Economics
Economics 100, 101, 102, 110, 115

4C. Ethnic Studies
Africana Studies 100, 101, 102, 110, 120, 125
American Indian Studies 101, 102, 110, 115, 120, 125, 130, 140

American Studies 110, 200
Anthropology 105, 115, 130, 140
Chicano Studies 101, 102, 120, 125
History 150, 151
Judaic Studies 107
Multicultural Studies 100, 110, 165, 200
Religious Studies 107
Sociology 200

4D. Gender Studies
History 130
Psychology 130
Sociology 115

4E. Geography
Geography 103, 105

4F: History
American Indian Studies 101, 102
Chicano Studies 101, 125
History 101, 102, 107, 108, 110, 121, 130, 140, 141, 150, 151, 152
Judaic Studies 107
Religious Studies 102, 103, 107, 108

4G. Interdisciplinary, Social or Behavioral Science

4H. Political Science, Government and Legal Institutions
Africana Studies 110
American Indian Studies 102, 110
Chicano Studies 102
Political Science 100, 101, 102, 110, 125

4I. Psychology
Child Development 100
Psychology 100, 110, 120, 125, 130, 225, 235
Sociology 120, 125

4J. Sociology and Criminology
Administration of Justice 100
American Indian Studies 120, 125
American Studies 200
Chicano Studies 120
Communications 100, 105
Multicultural Studies 200
Psychology 105, 120, 125
Sociology 100, 105, 110, 115, 120, 125, 130, 200
Speech 120

AREA 5: PHYSICAL AND BIOLOGICAL SCIENCES
(2 courses, 7-9 semester units)

Two courses required - one Physical Science and one Biological Science course. At least one must include a laboratory. Lab only courses are indicated with an L, and courses with a lab included are underlined.

5A. Physical Science Courses
Astronomy 100, 105L, 120
Chemistry 100, 104, 105, 110, 110L, 115, 115L, 205, 210, 220, 221
Earth Science 100
Geography 100, 100L, 110, 115, 125
Geology 100, 100L, 120, 125, 150, 150L
Oceanography 100, 100L, 101
Physical Science 100, 100L.
Physics 101, 102, 120, 121, 200, 201, 230, 231, 232

5B. Biological Science Courses
Anthropology 100, 100L, 101
Biology 100, 101, 101L, 102, 105, 106, 106L, 110, 114, 114L, 118, 118L, 130, 131, 131L, 135, 200, 201
Botany 100, 101, 101L, 115
Microbiology 200
Psychology 210
Zoology 100, 101, 101L, 115, 116, 116L, 120, 135, 145, 145L, 200, 203

Area 6: LANGUAGE OTHER THAN ENGLISH – UC ONLY

Satisfy one of the following:

1. Proficiency equivalent to two years of high school study in the same language with a grade of 'C' or better.
2. One of the following courses completed with a grade of 'C' or better: American Sign Language 100, Arabic 101B, Chinese 101, 101B, French 101, 101B, German 101, 101B, Italian 101, Japanese 101, 101B, Spanish 101, 101B, Tagalog 101
3. Any Palomar College foreign language course beyond the elementary level.

CSU GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION, AND AMERICAN IDEALS

- Not part of IGETC; may be completed prior to transfer.
- Complete one of the following pairs of courses:

Africana Studies 101 and 102; American Indian Studies 101 and 102; Chicano Studies 101 and 102; History 101 and 102; History 140 and 141; Political Science 101 and 102

The IGETC program began in Fall 1991. Course work completed prior to that term may be used for IGETC if it appeared on the 1991-92 IGETC course list. All courses taken in Fall 1991 or later must be on the approved IGETC list at the time they were taken. Courses added to the IGETC list are listed below with their approval date. It is important for students to have an updated list each year while at the community college.

FALL 1992 Additions:
AJ 100; BIOL 131L; BOT 115; CHEM 210; COMM 100, 105; ENG 202, 203; FREN 220, 225, 230; GEOG 110; MATH 200; MUS 170; PHIL 115; RUSS 220; ZOO 120, 145

FALL 1993 Additions:
BIOL 102, 118; CS 125; ENG 270, 280; MATH 150; MCS 165; SPCH 120; ZOO 145L, 203

FALL 1994 Additions:
No additions

FALL 1995 Additions:
AMS 200; CINE 120; HIST 150, 151; MCS 200; SOC 200

FALL 1996 Additions:
AIS 165; AS 126; ANTH 126; ART 163, 164; HIST 107, 108; MUS 171; OCN 101; PSYC 205; SOC 205

FALL 1997 Additions:
FREN 201, 210; GERM 201, 210; ITAL 101; JAPN 201, 210; LAT 201, 210; RUSS 201, 210; SPAN 201, 210

FALL 1998 Additions:
BIOL 107, 114, 118L; CHEM 102; DNCE 101; GEOG 115; HIST 109, 114; PHYS 115

FALL 1999 Additions:
AMS 110; MCS 110; OCN 115; PHSC 100L; PHYS 110; TAG 101

FALL 2000 Additions:
BIOL 114L

FALL 2001 Additions:
CHIN 130, 201; ITAL 201; TAG 201

FALL 2002 Additions:
ASL 100; CINE 102, 103; PHYS 101, 102, 200, 201

FALL 2003 Additions:
ANTH 100L; ENG 290

FALL 2004 Additions:
ENG 265

FALL 2005 Additions:
ANTH 125; GEOG 103: HIST 152; PSYC/SOC 105

FALL 2006 Additions
ANTH 101; ARAB 101B, 201A, 201B; DNCE 102, MCS 122

FALL 2007 Additions:
AMS 105; CHEM 104; CS 130, 135; MCS 120, 124; TA 150

FALL 2008 Additions:
BIOL 215; CHEM 205, 205L; CINE 122; DT 120, 121; HIST 121, 135; JS 106, 107; MATH 245; PHIL 103; PSYC 225, 235; RS 102, 103, 106, 107, 124; SOC 130

FALL 2009 Additions:
AIS 104; ANTH 107, 145; CHIN 201A, 201B; GC 102, GEOG/GEOL 125; ITAL 201A; PSYC 130; RS 108; SPAN 201A, 201B; SPCH 125

FALL 2010 Additions:
BIOL/ZOO 135

Independent California Colleges and Universities

There are 76 fully-accredited independent colleges and universities currently affiliated with the Association of Independent California Colleges and Universities (AICCU) providing a host of options at undergraduate, graduate, and professional levels for students planning to continue their education beyond Palomar College.

Admissions policies vary widely from one school to another, and virtually all institutions give full credit for general education courses and usually for courses designated for transfer by the community college. A good rule to follow for independent colleges as well as for out-of-state institutions is to expect full credit for courses which are parallel in scope and content to courses offered for credit to lower division "native" students at those institutions. Articulation agreements for many independent institutions are available in the Counseling Center.

Independent colleges are flexible in admission policies and in awarding credit. They invite interested students to make an appointment with their Office of Admissions in order to discuss transfer opportunities on a personal basis.

Financial aid may be a primary factor in considering attending an independent college. Most students cut the cost in half by attending the community college to complete the lower division course work and requirements. Information on financial aid and scholarships is available from the financial aid offices on independent college campuses as well as in the Financial Aid Office at Palomar College.

Students are advised to refer to the AICCU's web site at www.aiccu.edu.

Private and Out-of-State Universities

Palomar College offers courses similar to those offered in the lower division, or the first two years, of four-year colleges and universities. Since course requirements for graduation vary between colleges, it is to the student's advantage to choose the college or university to which he or she plans to transfer as early as possible.

Students are advised to complete the courses at Palomar College which best satisfy the lower division course requirements at that particular college or university to which he or she ultimately transfers. Lower division course requirements typically include a set of general education courses as well as a sequence of courses in the student's chosen major field of study.

Students are encouraged to meet with a counselor to develop an academic program best suited for their transfer institution and intended major. The Transfer and Counseling Centers maintain materials to assist students in their transfer planning.

7

Credit Courses and Programs

Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
Aviation Sciences
e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Section 7
Discipline and Program Offerings

AA: Associate in Arts Degree
AS: Associate in Science Degree
CA: Certificate of Achievement
CP: Certificate of Proficiency

Accounting **71**
Accounting (AA, CA)
Bookkeeping/Accounting Clerk (CP)

Administration of Justice **72**
Administration of Justice – General (AA)
Administration of Justice – Homeland Security (AA)
Administration of Justice – Investigations (AA)
Administration of Justice – Law Enforcement (AA)
Basic Police Academy (CA)

Africana Studies **75**
Africana Studies (CP)

Alcohol and Other Drug Studies **76**
Alcohol and other Drug Studies (AA, CA)

American Indian Studies **77**
American Indian Studies (CA)

American Sign Language **79**
ASL/English Interpreter Training Program (AA, CA)

American Studies **81**

Anthropology **82**
Archaeological Excavator (CA)
Archaeological Surveyor and Laboratory Assistant (CA)
Archaeology (AA)

Apprenticeship Training **84**
Acoustical Installer (AA, CA)
Carpentry (AA, CA)
Drywall/Lather (AA, CA)
Electrician (AA, CA)
Inside Wireman (AA, CA)
Plasterer (AA, CA)
Residential Wireman (AA, CA)
Sheet Metal (AA, CA)
Sound and Communication Systems Installer (AA, CA)
Sound Technician (AA, CA)

Arabic **99**

Architecture **99**
Architectural Drafting (AA, CA)
Architecture (AA)
Eco Building Professional (CA)

Art **101**
Digital Animation, Compositing and Music (CP)
Graphic Design (AA)
Illustration (AA)
Interactive Media Design
  Emphasis in 3D Modeling and Animation (AA, CA)
  Emphasis in Multimedia Design (AA, CA)
Pictorial Arts
  Emphasis in Painting (AA)
  Emphasis in Printmaking (AA)
Three-Dimensional Arts
  Emphasis in Ceramics (AA)
  Emphasis in Crafts (AA)
  Emphasis in Glass (AA)
  Emphasis in Jewelry and Metalsmithing (AA)
  Emphasis in Sculpture (AA)

Art – Design **108**
Graphic Design (AA)

Art – Illustration **109**
Illustration (AA)

Astronomy **110**
Astronomy (AA, CA)

Athletics and Competitive Sports **111**

Automotive Technology **112**
Auto Collision Repair (AA, CA)
Auto Chassis and Drive Lines (AA, CA)
Electronic Tune-Up and Computer Control Systems (AA, CA)
Mechanics – General (AA, CA)

Automotive Technology (ROP) **277**
Auto Collision Repair (AA, CA)

Aviation Sciences **114**
Aviation Operations and Management (AA, CA)
Aircraft Commercial Pilot (AA, CA)

Biology **116**
Biology – General (AA, CA)
Biology – Preprofessional (AA, CA)

Botany **119**

Business **119**
Advertising, Marketing, and Merchandising (AA, CA)
Business Administration (AA)
Business – General (AA)
E-Business (CP)
Entrepreneurship (CP)
Internet
  Emphasis in Business Education (AA, CA)
Retail Management (CA)
Salesperson – Retail (CP)

Business Management **124**
Business Management (AA, CA)

Cabinet and Furniture Technology **125**
Cabinetmaking and Furniture Design (AA, CA)
Cabinetmaking and Millwork (AA, CA)
Furniture Making (AA, CA)

Chemistry **130**
Chemistry (AA, CA)

Chicano Studies **131**

Child Development **132**
Assistant Teacher (CP)
Early Childhood Administration (AA, CA)
Early Intervention Assistant (AA, CA)
Early Intervention Teacher (AA, CA)
Infant/Toddler Teacher (AA, CA)
Preschool Teacher (AA, CA)
School Age Assistant (CP)
Working with Families (AA, CA)

Chinese **138**

Cinema **139**
Cinema (AA, CA)

Communications **140**
Public Relations (CP)

Computer Science and Information Systems -- Computer Science ... **141**
Computer Science (AA, CA)
Computer Science with Emphasis in
Video Gaming (AA, CA)
Java Software Development (CP)
Linux (CP)
Mac Programming (CP)
Video Game Artist (CP)
Video Game Developer (CP)

Computer Science and Information Systems -- Database **144**
Microsoft SQL Database Administrator (CP)
Oracle Database (CP)

Computer Science and Information Systems --
Information Technology **145**
Information Technology (AA, CA)
Microsoft Office User Specialist (CP)
Visual Basic (CP)
Web 2.0 (CP)

Computer Science and Information Systems -- Networking . **148**
Cisco (CP)
Computer Network Administration with Emphasis in
Cisco and Linux Management (AA, CA)
Computer Network Administration with Emphasis in
Cisco and Microsoft Management (AA, CA)
Computer Network Administration with Emphasis in
Microsoft and Linux Management (AA, CA)
Desktop Support Specialist - MCSA (CP)
Network Engineer - MCSE (CP)

Computer Science and Information Systems -- Web Technology **151**
Web Developer with Emphasis in
Java/Open Source (CP)
Web Developer with Emphasis in
Windows (CP)
Web Server Administrator with Emphasis in
Linux (CP)
Web Server Administrator with Emphasis in
Windows (CP)

Computer Science and Information Systems (ROP) **277**
Software Applications Specialist (CP)

Construction Inspection **152**
Construction Inspection (AA, CA)

Cooperative Education **153**

Counseling **154**

Culinary Arts **155**
Culinary Arts (AA, CA)
Culinary Skills (CP)
Patisserie and Baking (CP)

Culinary Arts (ROP) **279**
Culinary Arts (AA, CA)
Culinary Skills (CP)
Patisserie and Baking (CP)

Dance **157**
Dance (AA, CA)

Dental Assisting **163**
Dental Assisting (Registered Dental Assistant) (AA, CA)

Diesel Mechanics Technology **164**
Diesel Technology (AA, CA)

Disability Resource **165**

Drafting Technology **166**
Computer Assisted Drafting (AA, CA)
Drafting Technology – Multimedia (AA, CA)
Drafting Technology – Technical (AA, CA)
Electro-Mechanical Drafting and Design (AA, CA)
Interactive Media Design
Emphasis in 3D Modeling and Animation (AA, CA)
Emphasis in Multimedia Design (AA, CA)

Earth Sciences **170**

Economics **170**
Economics (AA, CA)

Education **171**

Electrician Trainee **171**
Electrician Trainee (CA)

Electro-Mechanical Equipment Technician **172**
Mail Processing Equipment Mechanic (CA)
Maintenance Mechanic (CP)

Emergency Medical Education **172**
EMT-Basic (CP)
Paramedic Training (AA, CA)

Engineering **176**
Engineering (AA)

English **177**
English (AA)

English as a Second Language **180**

Entertainment Technology **181**
Entertainment Technology (CA)

Family and Consumer Sciences **182**
Family and Consumer Sciences – General (AA, CA)

Fashion **183**
Fashion: Buying and Management (AA, CA)
Fashion Design/Technical (AA)
Fashion Merchandising (AA)

Fire Technology **186**
Fire Technology – Emergency Management (AA, CA)
Fire Technology – General (AA, CA)

Foreign Languages **189**
(See Arabic, Chinese, French, German, Italian, Japanese, Spanish, Tagalog)

French **190**
French (AA, CA)

General Studies **191**
General Studies
Arts and Humanities Emphasis (AA)
Science and Mathematics Emphasis (AA)
Social and Behavioral Sciences Emphasis (AA)

Geography **192**
Advanced Geographic Information Systems (AA, CA)
Geographic Information Systems (CP)

Geology **193**
Geology (AA)

German **195**

Graphic Communications **195**

Graphic Communications - Imaging & Publishing **196**
Digital Arts (CP)
Digital Imaging (AA, CA)
Digital Prepress Operator (CP)
Digital Publishing (CP)
Electronic Publisher (CP)
Graphic Communications Emphasis in Electronic Publishing (AA, CA)
Graphic Communications Emphasis in Management (AA, CA)
Graphic Communications Emphasis in Production (AA, CA)
Screen Printer (CP)
Screen Printing (AA, CA)

Graphic Communications - Multimedia & Web **201**
Digital Animation, Compositing, and Music (CP)
Digital Media (CP)
Digital Video (AA, CA)
E-Commerce Design (CP)
Interactive Media Design
Emphasis in 3D Modeling and Animation (AA, CA)
Emphasis in Multimedia Design (AA, CA)
Interactive Web Multimedia and Audio (AA, CA)
Internet
Emphasis in Graphic Communication (AA, CA)
Internet Publisher (CP)
New Media Compositing, Authoring, and Distribution (AA, CA)
Video Game Artist (CP)
Web Data Base Design (CP)
Web Graphics (CP)
Web Motion Graphics (CP)

Graphic Communications - Imaging & Publishing (ROP) **280**

Graphic Communications - Multimedia & Web (ROP) **281**

Health **208**

History **208**

Humanities **209**

Industrial Technology **209**

Insurance **210**
Commercial and Personal Insurance Services (AA, CA)
Insurance Services (CP)

Interior Design **210**
Interior Design (AA, CA)

International Business **212**
International Business (AA, CA)

Italian **213**

Japanese **214**

Journalism **214**
Broadcast Journalism (CP)
Journalism (AA, CA)

Judaic Studies **215**

Legal Studies **216**
Legal Studies (AA)
Legal Support Assistant (CP)

Library Technology **217**
Library Technology (AA, CA)

Mathematics **218**
Mathematics (AA)

Medical Assisting **220**
Administrative Medical Assisting (AA, CA)
Clinical Medical Assisting (AA, CA)

Microbiology **221**

Multicultural Studies **222**
(See also Africana Studies, American Indian Studies, American Studies, Chicano Studies, Judaic Studies)

Music **222**
Digital Animation, Compositing, and Music (CP)
Music (AA)

Noncredit **284**
Adult Basic Education
Adult Basic Education Certificate of Completion
Basic Education
Career and Technical Education
Citizenship
Disability Education
English as a Second Language
English as a Second Language Certificate of Completion
Home Economics Education
Health and Safety Education
Older Adult Education

Nursing Education **228**
Nursing (AA)
Nursing (AS)
AA in Nursing for LVNs
AS in Nursing for LVNs
AA or AS in Nursing for Diploma RNs
Non-degree 30 unit option for LVNs

Oceanography **231**

Office Information Systems **232**
Administrative Assistant (AA, CA)
Data Entry(CP)
International Administrative Assistant (AA, CA)
Legal Secretary (AA, CA)
Medical Office Management (AA, CA)
Medical Language Specialist (AA, CA)
Receptionist (CP)
Virtual Assistant (CP)

Optical Technology (ROP) **281**

Philosophy **236**

Photography **237**
Commercial Photography (CP)
Digital Imaging (AA, CA)
Fine Art Photography (CP)
Photography (AA, CA)

Physical Education **240**
Adult Fitness/Health Management (CA)
Physical Education (AA)

Physical Science **245**

Physics **245**

Political Science **246**

Psychology **247**
Alcohol and Other Drug Studies (AA, CA)
Psychological and Social Services (AA, CA)

Public Administration **249**
Public Administration (AA, CA)

Public Works Management **249**
Public Works Management - Level I (AA, CA)
Public Works Management - Level II (AA, CA)

Radio and Television **251**
Broadcast Journalism (CP)
Digital Media (CP)
Digital Video (AA, CA)
Entertainment Technology (CA)
Radio and Television (AA, CA)

Reading **254**

Real Estate **254**
Escrow (AA, CA)
Real Estate Appraisal License Preparation (CP)
Real Estate Broker License Preparation (AA, CA)
Real Estate Salesperson License Preparation (CP)

Recreation **257**
Outdoor Leadership (AA, CA)
Recreation Agency Leader (AA, CA)

Regional Occupational Program **277**
See:
Automotive Technology (ROP)
Computer Science and Information Systems (ROP)
Culinary Arts (ROP)
Graphic Communications (ROP)
Optical Technology (ROP)

Religious Studies **258**

Sociology **258**
Alcohol and Other Drug Studies (AA, CA)
Psychological and Social Services (AA, CA)

Spanish **261**

Speech **262**
Speech Communication (AA)

Tagalog **263**

Theatre Arts **263**
Entertainment Technology (CA)
Theatre Arts (AA)
Theatre Arts - Emphasis in Acting (AA)
Theatre – Technical (CA)

University Studies **267**
California State University General Education Breadth(CA)
Intersegmental General Education Transfer Curriculum (CA)
University Studies - Emphasis in Business (AA)
University Studies - Emphasis in Culture and Society (AA)
University Studies - Emphasis in Education (AA)
University Studies - Emphasis in Fine and Performing Arts (AA)
University Studies - Emphasis in Health and Fitness (AA)
University Studies - Emphasis in Humanities (AA)
University Studies - Emphasis in Mathematics and Science (AA)
University Studies - Emphasis in Media and Communication (AA)
University Studies - Emphasis in Social Sciences (AA)
University Studies - Emphasis in World Languages (AA)

Upholstery **270**
Upholstery (CP)

Wastewater Technology Education **271**
Wastewater Technology Education (AA, CA)

Water Technology Education **272**
Water Technology Education (AA, CA)

Welding **273**
Entry-Level Gas Metal Arc/Flux Cored Arc Welding (CP)
Entry-Level Gas Tungsten Arc Welding (CP)
Entry-Level Shielded Metal Arc Welding (CP)
Welding Technology (AA, CA)

Women's Studies **275**
Women's Studies (AA)

Zoology **275**

Course Information

Students are held responsible for understanding and fulfilling all requirements presented herein, and for understanding and fulfilling any changes in those requirements which may have occurred since the printing of the catalog. Students are advised to check at the division or department levels for these changes.

Course Numbering System

Palomar College operates on a semester system. The course numbering system has meaning with regard to level and transfer. The college numbering system, effective summer 1990, is as follows:

1 – 49: Remedial or college preparatory courses which do not apply toward an A.A. degree and which are not intended for transfer to another community college or four-year college or university.

50 – 99: Courses which apply toward an AA degree but which are not intended for transfer to a four-year college or university.

100 – 299: Courses which count toward an AA degree and/or are intended for transfer to a four-year college or university (refer to Transfer Identification below). Freshman-level courses are generally given numbers from 100 – 199, and sophomore-level courses are generally given numbers from 200 – 299.

Courses numbered 100 through 299 are intended as lower division transferable course work. The final decision in regard to transferability rests with the institution to which the credits are transferred.

Numbers in parentheses indicate the units granted for a course.

Transfer Identification

Courses at Palomar College which transfer to public four-year universities in California are identified at the beginning of each course description with the abbreviation CSU and/or UC.

The notation CSU means the course will transfer to the 23 campuses of the California State University system.

The notation UC means the course will transfer to the 9 campuses of the University of California system.

Accounting (ACCT)

See also Business

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Accounting

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Accounting

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Bookkeeping/Accounting Clerk

PROGRAMS OF STUDY

Accounting

The Associate in Arts Degree and/or Certificate of Achievement in Accounting is designed to prepare the graduate for entry into positions in industry, public accounting firms, government, and nonprofit organizations. The graduate will have an understanding of accounting and business concepts.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Lab	1
ACCT 105 or	Individual Income Taxes	
ACCT 107	Taxation of Business Entities	4
ACCT 108	Managerial Accounting	4
ACCT 110	QuickBooks	2
ACCT 115	Sales/Payroll Tax/and Employee Benefits	2
ACCT 120	Financial Statement Analysis	3
BUS 110	Business Mathematics	3
BUS 115	Business Law	3
BUS 125 or	Business English	
BUS 205	Business Writing	3
CSIT 105 or	Computer Concepts and Applications	
CSIT 120/ R CSIS 120	Computer Applications	3
TOTAL UNITS		**32**

Recommended Electives: *BUS 100, 116, 140; OIS 101, 115; CE 100*

Bookkeeping/Accounting Clerk

Provides a program to prepare the student for an entry-level Bookkeeping/Accounting Clerk position.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
ACCT 103 and	Financial Accounting	4
ACCT 104 or	Accounting Spreadsheet Lab	1
BUS 105 and	Bookkeeping Fundamentals	4
BUS 105L	Bookkeeping Electronic Spreadsheet Lab	.5
ACCT 110	QuickBooks	2
ACCT 115	Sales Tax, Payroll Taxes, and Employee Benefits	2
TOTAL UNITS		**8.5 - 9**

COURSE OFFERINGS

ACCT 103 Financial Accounting (4)
4 hours lecture
Corequisite: *ACCT 104*
Transfer acceptability: *CSU; UC*
Financial accounting theory, principles, and procedures. Application of theory and practice to the accounting cycle and to systems design. An emphasis on both the preparer and the information user will be stressed.

ACCT 104 Accounting Spreadsheet Laboratory (1)
2 hours lecture/laboratory
Corequisite: *ACCT 103*
Transfer acceptability: *CSU*
Application of fundamental spreadsheet concepts, principles, and commands in working with templates and modeling problems in accounting principles.

ACCT 105 Individual Income Taxes (4)
4 hours lecture
Transfer acceptability: *CSU*
Tax planning and preparation topics for individuals including filing status, exemptions, income and exclusions, business expenses, itemized deductions, credits, capital gains, depreciation tax payments, California Personal Income Tax.

ACCT 107 Taxation of Business Entities (4)
4 hours lecture
Transfer acceptability: *CSU*
Taxation from a business entities approach including business deductions, losses, property transactions, and tax credits. Topics will include rules related to corporations, partnerships, and S corporations.

ACCT 108 Managerial Accounting (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ACCT 103*
Transfer acceptability: *CSU; UC*
Accounting theory, principles, and procedures for financial statement analysis, decentralized operations, cost concepts, cost accounting, budgeting, standard costing, cost profit volume analysis, accounting control, differential analysis, capital budgeting, variable and absorption costing, responsibility accounting, capital investment analysis, and income taxes.

ACCT 110 QuickBooks (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ACCT 103, or BUS 105*
Transfer acceptability: *CSU*
Applying the computer in the study of accounting principles with emphasis on planning and analysis. Students prepare data and enter accounting transactions, which are used as input for QuickBooks Pro in order to yield the various accounting statements as output.

ACCT 115 Sales Tax, Payroll Taxes, and Employee Benefits (2)
2 hours lecture
Transfer acceptability: *CSU*
Provides a knowledgeable background in all phases and aspects of sales tax and payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for social security, and federal and state income tax returns. Worker's compensation and state disability benefits will be discussed, as well as pensions, health plans, vacation and sick leave, and other employee benefits.

ACCT 120 Analysis of Financial Statements (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ACCT 103*
Transfer acceptability: *CSU*
Exploration of the characteristics of financial statements and analysis of reported results from such statements. How to apply ratios to financial statements and to interpret outcomes in order to draw various inferences and/or conclusions from the results.

ACCT 197 Accounting Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Note: May be taken 4 times

ACCT 205 Cost Accounting (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ACCT 108*
Transfer acceptability: *CSU*
A study of the fundamental principles of cost accounting, including the elements of production costs, cost estimations, byproducts and joint products, spoilage and scrap materials, and systems of cost distribution such as standard cost, job order, and process flow.

Administration of Justice (AJ)

Contact Public Safety Programs for further information.
(760) 744-1150, ext.1722
Office: PSTC, 182 Santar Place, San Marcos
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Administration of Justice - General
- Administration of Justice - Homeland Security
- Administration of Justice - Investigations
- Administration of Justice - Law Enforcement

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Basic Police Academy

PROGRAMS OF STUDY

Administration of Justice – General

This program prepares students for a career in the criminal justice system or private security services. The program will give students general knowledge and skills in theory, principles, and techniques of law enforcement agencies and private security services.

A.A. DEGREE MAJOR

Program Requirements		Units
AJ 100	Introduction To Criminal Justice	3
AJ 101	Criminal Evidence	3
AJ 102	Criminal Procedures	3
AJ 103	Community Relations	3
AJ 104	Criminal Law	3
AJ 106	Police Ethics	3
AJ 180	Criminology	3
AJ 280	Internship – A Service Learning Experience	3
	or	
*CE 100	Cooperative Education	3
Electives (Select 12 units)		
AJ 50	POST Perishable Skills	.5
AJ 51	First Aid/CPR Update	.5
AJ 52	Racial Profiling	.5
AJ 53	Instructor Development	2.5
AJ 65	Preparation for Law Enforcement	3
AJ 72	Police Academy Orientation and Leadership	3
AJ 82	Law Enforcement Career Strategies	3
AJ 97	Topics In Administration Of Justice	.5 - 20
AJ 140	Criminal Justice in the 21ST Century Field Study	1.5
AJ 175	Narcotics	3
AJ 197	Topics In Administration Of Justice	.5 - 6
TOTAL UNITS		**36**

**Cooperative Education must be related to this major.*

Administration of Justice - Homeland Security

This program prepares students for a career in the public or private job sector providing security services to institutions, government entities (Department of Homeland Security and Transportation Security Administration), and the general public. This program will give students general knowledge and skills of Homeland Security.

A.A. DEGREE MAJOR

Program Requirements		Units
AJ 100	Introduction To Criminal Justice	3
AJ 101	Criminal Evidence	3
AJ 102	Criminal Procedures	3
AJ 103	Community Relations	3
AJ 104	Criminal Law	3
AJ 106	Police Ethics	3
AJ 151	Introduction to Terrorism	3
AJ 152	Weapons of Mass Destruction	3
AJ 153	Issues in Homeland Security	3
AJ 180	Criminology	3
AJ 280	Internship – A Service Learning Experience	3
	or	
*CE 100	Cooperative Education	3
FIRE 131	Emergency Preparedness	3
TOTAL UNITS		**36**

*Cooperative Education must be related to this major.

It is recommend that a student working towards an associate degree in Homeland Security take two of the following courses: POSC 110; SOC 110; and/or PSYC 120.

Administration of Justice – Investigations

This program prepares students for a career in the public or private sector providing general knowledge and skills in theory, principles, and techniques of forensic science and investigation in the criminal justice system.

A.A. DEGREE MAJOR

Program Requirements		Units
AJ 100	Introduction To Criminal Justice	3
AJ 101	Criminal Evidence	3
AJ 102	Criminal Procedures	3
AJ 103	Community Relations	3
AJ 104	Criminal Law	3
AJ 106	Police Ethics	3
AJ 110	Basic Criminal Investigation	3
AJ 141	Enforcement Psychology	3
AJ 180	Criminology	3
AJ 210	Basic Crime Scene Forensic Science	3
AJ 211	Fingerprint Identification	3
AJ 280	Internship -- A Service Learning Experience	3
	or	
*CE 100	Cooperative Education	3
TOTAL UNITS		**36**

*Cooperative Education must be related to this major.

Administration of Justice–Law Enforcement

This program prepares students with the general knowledge and skills required for a career in municipal and county law enforcement as a sworn peace officer.

A.A. DEGREE MAJOR

Program Requirements		Units
AJ 100	Introduction to Criminal Justice	3
AJ 101	Criminal Evidence	3
AJ 102	Criminal Procedures	3
AJ 103	Community Relations	3
AJ 104	Criminal Law	3
AJ 106	Police Ethics	3
AJ 110	Basic Criminal Investigation	3
AJ 115	Patrol Procedures	3
AJ 131	Juvenile Justice	3
AJ 141	Enforcement Psychology	3
AJ 180	Criminology	3
AJ 280	Internship -- A Service Learning Experience	3
	or	
*CE 100	Cooperative Education	3
TOTAL UNITS		**36**

*Cooperative Education must be related to this major.

Basic Police Academy

The Basic Police Academy Certificate of Achievement is a series of courses which when combined satisfy mandated training requirements for a California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.

Admission to the program is by special application. To be eligible for consideration, the applicant must (1) be free of felony conviction or conviction of a misdemeanor which prohibits possession of a firearm, (2) be eligible for English 50, (3) possess a valid driver's license, (4) pass written, oral and physical fitness examinations, (5) pass a medical examination, (6) be 18 years old, and (7) pass Department of Justice clearance.

In addition to passing the required college examinations, the student must obtain passing scores on each P.O.S.T. Learning Domain Examination, and all skills/lab portions of the Academy.

Each block must be completed in sequential order within the same Academy.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AJ 90	Basic Police Academy I	20
AJ 91	Basic Police Academy II	18.5
AJ 92	Basic Police Academy III	19
TOTAL UNITS		**57.5**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

AJ 50 POST Perishable Skills (.5)
1½ hours laboratory
Prerequisite: *Must be an active full time peace officer or active duty reserve peace officer and currently employed by a law enforcement agency.*
Recommended preparation: *Law enforcement field experience*
Note: *Pass/No Pass grading only; may be taken 4 times*
A POST-approved perishable skills course for active full time peace officers or active reserve peace officers that are currently employed by a law enforcement agency. This course covers tactical firearms, driver training/awareness, arrest and control, tactical communications, and interpersonal communication skills. This course meets the POST Continuing Professional Training (CPT) requirements.

AJ 51 First Aid/CPR Update (.5)
½ hour lecture
Prerequisite: *Must be an active full time peace officer or active reserve peace officer and currently employed by a law enforcement agency.*
Note: *Pass/No Pass grading only; may be taken 4 times*
A POST-approved perishable skills course for active full time peace officers or active reserve peace officers that are currently employed by a law enforcement agency. This course is an overview of emergency medical care terminology and procedures required for peace officers when responding to victims where assessment of treatment and possible basic life support maneuvers will be required.

AJ 52 Racial Profiling (.5)
½ hour lecture
Prerequisite: *Must be an active full time peace officer or active reserve peace officer and currently employed by a law enforcement agency*
Note: *Pass/No Pass grading only; may be taken 4 times*
A POST-approved course for active full time peace officers or active reserve peace officers that are currently employed by a law enforcement agency. This course clarifies what constitutes racial profiling, conceptually and legally.

AJ 53 Instructor Development (2.5)
2½ hours lecture
Prerequisite: Must have successfully completed a POST Certified Basic Police Academy, and/or is a subject matter expert on a topic that is taught in the Basic Course
Note: Pass/No Pass grading only; may be taken 4 times
A POST-approved course that is designed to develop competency in the following areas: role and responsibility of the basic course instructor, adult learning principles, lesson planning, presentation skills, facilitation skills, learning resources and evaluation methods. This program consists of 40 hours of instruction and competency demonstration.

AJ 65 Preparation for Law Enforcement (3)
3 hours lecture
Note: *Pass/No Pass grading only*
This course will provide an educational overview of the hiring process of law enforcement agencies and prepare the serious candidate for law enforcement employment to successfully complete the pre-employment testing and screening process. It will take the student from the written test all the way through to the oral interview.

AJ 72 Police Academy Orientation and Leadership (3)
3 hours lecture
Note: *Pass/No Pass grading only*
The development of critical thinking and physical fitness skills that lead to successful completion of the Police Academy program.

AJ 75 Spanish for Law Enforcement (3)
3 hours lecture
Basic conversational Spanish with emphasis on law enforcement situations.

AJ 83 Law Enforcement Career Strategies (3)
3 hours lecture
This course is designed to address student's expectations and concerns of a law enforcement career. Topics will range from the application and hiring process to realistic techniques and practices for safe operational procedures in a variety of law enforcement job settings. Students will be given tools and strategies to cope with the interpersonal demands and the inherent traumas of the career as well as information to aid in assessing the risk and rewards of the career. The course will be taught by instructors who have had long careers or who currently serve as peace officers.

AJ 90 Basic Police Academy I (20)
18½ hours lecture-4½ hours laboratory
Note: May not be taken for Pass/No Pass Grading; may not be taken as an audit. May be taken 4 times.
Block 1 of the Basic Police Academy Certificate of Achievement is a series of major objectives which when combined satisfy mandated training requirements for California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.

AJ 91 Basic Police Academy II (18.5)
15½ hours lecture-9 hours laboratory

Prerequisite: *A minimum grade of 'C' in AJ 90*
Note: *May not be taken for Pass/No Pass Grading; may not be taken as an audit. May be taken 4 times.*
Block 2 of the Basic Police Academy Certificate of Achievement is a continuation in a series of major objectives which when combined satisfy mandated training requirements for California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.

AJ 92 Basic Police Academy III (19)
16 hours lecture-9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AJ 91*
Note: *May not be taken for Pass/No Pass Grading; may not be taken as an audit. May be taken 4 times.*
Block 3 of the Basic Police Academy Certificate of Achievement is the culmination of a series of major objectives which when combined satisfy mandated training requirements for California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.

AJ 97 Topics in Administration of Justice (.5 - 20)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory or lecture/laboratory may be scheduled by the department. Refer to class schedule.
Note: May not be taken for Pass/No Pass Grading. May be taken 4 times.
Topics in Administration of Justice. See Class Schedule for specific topic offered. Course title will designate subject covered.

AJ 100 Introduction to Criminal Justice (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A comprehensive overview of the American Criminal Justice System. History, theories, and philosophy of the three parts of the criminal justice system including law enforcement, courts, and corrections. Relevant sociological and economic issues, past and present, will be addressed.

AJ 101 Criminal Evidence (3)
3 hours lecture
Transfer acceptability: *CSU*
The kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

AJ 102 Criminal Procedures (3)
3 hours lecture
Transfer acceptability: *CSU*
Review of the criminal justice system; criminal procedures from incident to final disposition; principles of constitutional, federal, and state laws as they apply to, and affect the administration of justice.

AJ 103 Community Relations (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of the role of law enforcement and justice system participants. The expectations and interrelationships between the various agencies and the public view/role toward establishing positive relationships. An overview of communication skills and the interaction between the criminal justice system and the multicultural society will be presented. Hate crimes, as well as prejudice, bias, and discrimination will be addressed.

AJ 104 Criminal Law (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Historical development, philosophy, and constitutional provisions of law. Definitions, classification of crimes, study of case law, and concepts of the law as a social force.

AJ 106 Police Ethics (3)
3 hours lecture
Transfer acceptability: *CSU*
Designed to enable the student to explore and understand the potential ethical dilemmas that may confront administration of justice professionals. Morality, ethics, justice and law will be studied from the perspective of a criminal justice professional.

AJ 110 Basic Criminal Investigation (3)
3 hours lecture
Transfer acceptability: *CSU*
Fundamentals of investigation, search, collection and preservation of physical evidence, scientific aids, modus operandi, source of information, interviews and interrogations, and incident reporting.

AJ 115 Patrol Procedures (3)
3 hours lecture
Responsibilities, techniques, and methods of police patrol.

AJ 131 Juvenile Justice (3)
3 hours lecture
Transfer acceptability: *CSU*
The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures. Includes youth subcultures and delinquency and the varied philosophies underlying their existence.

AJ 140 Criminal Justice in the 21st Century– Field Study (1.5)
4½ hours laboratory
Note: *May be taken 4 times*
This course will be a study of local, state and federal courts, correctional institutions and law enforcement agencies. Knowledge will be obtained by site visitations, personal interviews and tours.

AJ 141 Enforcement Psychology (3)
3 hours lecture
Designed to assist the peace officer's understanding of the psychological dilemma of law enforcement. Victimology, diversity, politics, and the tactical aspect of the criminal justice system will be evaluated from a psychological perspective.

AJ 151 Introduction to Terrorism (3)
3 hours lecture
This course is designed to educate the student in the enforcement issues and future of terrorism around the world. Domestic and international terrorism will be covered. This course will assist the student in obtaining employment in the field of Law Enforcement and Homeland Security.

AJ 152 Weapons of Mass Destruction (3)
3 hours lecture
A description of actions required in response to a Weapons of Mass Destruction (WMD) event. Instructions for all levels of responders. Discussions include early warning systems, intelligence gathering, roles of various law enforcement agencies, public health threats, and identification of terrorist individuals and groups.

AJ 153 Issues in Homeland Security (3)
3 hours lecture
A description of the Homeland Security Agency, its mission, structure and roles. Discussions include future planning and strategies that address intelligence gathering and assessment of information from domestic and international threats.

AJ 175 Narcotics (3)
3 hours lecture
A survey of laws and specific characteristics pertaining to hallucinogens, narcotics, marijuana, alcohol, and poisonous substances. It is designed to give the student conceptual insight into contemporary problems of vice, drugs, and legal social issues related to dangerous drugs.

AJ 180 Criminology (3)
3 hours lecture
Transfer acceptability: *CSU*
A general study of crime, the science of crime and criminal behavior, the forms of criminal behavior and the causes of crime. Crime theories and sociological causes of crime, types of crime, and issues of criminal behavior will also be addressed.

AJ 197 Topics in Administration of Justice (.5-6)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Administration of Justice. See Class Schedule for specific topic offered. Course title will designate subject covered.

AJ 210 Basic Crime Scene Forensic Science (3)
3 hours lecture
Introduces various specialized disciplines including the crime lab functions, forensic instrumentation, forensic photography, crime scene processing, drug analysis, hair and fiber analysis, questioned documents, and fingerprint usage.

AJ 211 Fingerprint Identification (3)
3 hours lecture
This course reviews the history and application of fingerprinting for personal identification including recognition of patterns and classification of fingerprints. The student will also experience practical problems involving locating, developing, lifting and photographing latent prints. Courtroom testimony and exhibits will also be covered.

AJ 212 Forensic Photography (3)
3 hours lecture
Techniques utilized in police photography are outlined and explored including crime scene and traffic collision photography, macro photography, microphotography, black/white and color photography, and photography equipment. Also discussed are topics such as low light or existing light photography, high speed film shooting, use of alternative light sources in photography, aerial photography, video recording, and presentation of photographic exemplars in court or trial.

AJ 280 Internship - A Service Learning Experience (3)
9 hours laboratory
Transfer acceptability: *CSU*
An opportunity for students to gain work and community service experience in a law enforcement and/or civic/service agency. Students have an opportunity to observe, participate in service activities and meet professional mentors in a job setting. Service learning opportunities are paid or unpaid.

Africana Studies (AS)

See also Multicultural Studies

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: ST-28
For transfer information, consult a Palomar College Counselor.

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Africana Studies

PROGRAM OF STUDY

Africana Studies

Provides background for upper division course work in Africana Studies and a complementary base for students interested in many areas and professions including: Business Administration, Child Development, Law Enforcement, General Studies, Journalism, Liberal Arts and Sciences, Nursing, Radio and Television.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
AS 100	Intro/Hist Legacy/Africana	3
AS 115	Intro/Comparative Africana Lit	3
AS 116	Intro Literature/Arts Africana	3
AS 120	Africana Social Institutions	3
AS 125	Africana People/World Politics	3
TOTAL UNITS		**15**

COURSE OFFERINGS

AS 100 Introduction to the Historical Legacy of Africana Peoples (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The ancient and modern histories and civilizations of Africana peoples. An emphasis on the Africana presence and impact on global historical processes.

AS 101 African American History I (3)
3 hours lecture
Note: *This course plus AS 102 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC - maximum credit for one pair: AS 101-102 or HIST 101-102*
African Americans in the history of the United States from Africa through Reconstruction with particular emphasis on the trans Atlantic slave trade; the colonial period; the Revolution; constitutional development; development of the plantation system, slavery on and off the plantation; the free Negro in the North and South; westward expansion and frontier influences; emergence of sectionalism, the anti slavery movement; impact of, and contributions to, the Civil War; Reconstruction and post war adjustments; Black leadership; and the antebellum legacy.

AS 102 African American History II (3)
3 hours lecture
Note: *This course plus AS 101 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC - maximum credit for one pair: AS 101-102 or HIST 101-102*
Cultural, economic, and political development of African Americans in the United States since Reconstruction. Emphases on post Civil War difficulties; the Westward Movement; expressions of cultural identity; industrial development; impact of World Wars I and II on urbanization and social mobility; expansion of government activity; Civil Rights Era and modern militancy; Black leadership, and the United States as a world power.

AS 110 The Black and the United States Political System (3)
3 hours lecture
Transfer acceptability: *CSU; UC - maximum credit for one course: AS 110, AIS 102, CS 102*
Surveys the role of Black people in the United States political system and institutions. Examines the structure and functions of the American political system in relation to issues which affect the American people as a whole and minority groups in particular. A description and analysis of Federal, State, and local government organizations as they relate to the group will be emphasized.

AS 115 Introduction to Comparative Africana Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Selected literatures of Africana peoples. Examination of the principles of aesthetics, theme, philosophy and religion, and the impact of cross cultural exchanges on the literature.

AS 116 Introduction to the Literature and Arts of Africana Civilizations (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Continuum in the development of African and Africana literature and other arts from Ancient Africa to the present. Cross cultural exchanges affecting artistic and literary evolution.

AS 120 Introduction to Africana Social Institutions and Behavior (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Social institutions and their influence on the behavior of Africana peoples. Analysis of facts, principles, and concepts basic to understanding human behavior.

AS 125 Africana Peoples and the World Political Economy (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Socio political economic institutions and forces operative in the Africana world. Analysis of the economic and political motives based in the slave trade, colonialism, and underdevelopment.

AS 126 Cultures of Africa (3)
3 hours lecture
Note: *Cross listed as ANTH 126.*
Transfer acceptability: *CSU; UC*
Introduction to the indigenous peoples and cultures of Africa. Brief prehistoric and historic background of the continent. Comparative study of traditional cultures representative of the continent's diversity. Focus on social, economic, political, religious and aesthetic life, and culture change.

Alcohol and Other Drug Studies (AODS)

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2329
Offices: W-1 or W-16
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Alcohol and Other Drug Studies

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Alcohol and Other Drug Studies

PROGRAM OF STUDY

Alcohol and Other Drug Studies

Provides the student with the academic training and hands on experience for entry-level employment in delivery of alcohol and other drug treatment services in agency settings and serves as a preparation for California state examinations as a certified addictions treatment counselor by CAADE and as a certified alcoholism and drug abuse counselor by CAADAC.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
PSYC 100	Introduction to Psychology	3
PSYC/SOC/ AODS 150	Introduction to Alcohol and Other Drug Studies	3
PSYC/SOC/ AODS 155	The Physiology and Pharmacology of Psychoactive Drugs	3
PSYC/SOC/ AODS 160	Prevention, Intervention, and Education	3
PSYC 225	Psychology of Abnormal Behavior	3
PSYC/SOC/ AODS 250	Group Leadership and Process	3
PSYC/SOC/ AODS 255	Treatment Modalities, Law and Ethics	3
PSYC/SOC/ AODS 260	Chemical Dependency Family Counseling	3
PSYC/SOC/ AODS 299	Directed Field Experience II	6
Group One (Select 3 units)		
SOC 100	Introduction to Sociology	3
SOC 110	Social Problems	3
Group Two (Select 4-5 units)		
PSYC/SOC/ AODS 140	Introduction to Psychological and Social Services	3
PSYC/SOC/ AODS 298	Directed Field Experience I	5
TOTAL UNITS		**37 - 38**

Alcohol and Other Drug Studies is also listed in Psychology and in Sociology.

COURSE OFFERINGS

AODS 140 Introduction to Psychological and Social Services (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as PSYC 140/SOC 140*
Transfer acceptability: *CSU*
Supervised internship in a human service agency or an alcohol and other drug treatment facility. An overview of the field of human services, including alcohol and other drug treatment. The roles of psychologists, sociologists, social workers, family therapists, social service assistants and addiction counselors are compared and contrasted, and the issues they deal with are described. Through cooperative efforts of provider agencies, the instructor, and the student, the skills utilized for entry-level employment are observed, practiced, and evaluated under supervision.

AODS 150 Introduction to Alcohol and Other Drug Studies (3)
3 hours lecture
Note: *Cross listed as PSYC 150/SOC 150*
Transfer acceptability: *CSU*
Examines alcohol, tobacco and psychoactive drugs in society. Biological, psychological and socio-cultural factors of drug abuse and dependence will be explored. The impact of addiction on families and society; contemporary treatment techniques, and the addiction counseling profession will be covered.

AODS 155 The Physiology and Pharmacology of Psychoactive Drugs (3)
3 hours lecture
Note: *Cross listed as PSYC 155/SOC 155*
Transfer acceptability: *CSU*
This course will examine how psychoactive drugs affect the nervous system. Ways of classifying drugs will be identified including the processes of physical and psychological dependence, tolerance, withdrawal, and genetic predispositions. Temporary and long-term affective, behavioral, cognitive, biological, and social consequences of psychoactive drug use will be explored, including disorders such as Korsakoff's syndrome and other nutritional deficiencies.

AODS 160 Prevention, Intervention, and Education (3)
3 hours lecture
Note: *Cross listed as PSYC 160/SOC 160*
Transfer acceptability: *CSU*
This course will review historical and contemporary approaches for chemical dependency, including prevention, intervention, and education. It will analyze the progression of substance abuse and chemical dependency disorders and will evaluate types of prevention, education, and intervention strategies.

AODS 250 Group Leadership and Process (3)
3 hours lecture
Note: *Cross listed as PSYC 250/SOC 250*
Transfer acceptability: *CSU*
An introduction to the dynamics of group interaction, with emphasis upon the individual's firsthand experience as the group studies itself under supervision. Problems of communication, effective emotional responses, and personal growth will be highlighted. The emphasis will be upon group process as a means of changing behavior.

AODS 255 Treatment Modalities, Law and Ethics (3)
3 hours lecture
Note: *Cross listed as PSYC 255/SOC 255*
Transfer acceptability: *CSU*
This course reviews the principles and practices of addiction treatment includ-

ing screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, education of clients and their families, referral, report and record keeping, and consultation. Legal and ethical standards of practice for addictions counselors will be reviewed and included in this body of knowledge, skills, and attitudes.

AODS 260 Chemical Dependency Family Counseling (3)
3 hours lecture
Note: *Cross listed as PSYC 260/SOC 260*
Transfer acceptability: *CSU*
This course is designed to explore methods of assisting family members and others to understand and to cope with the alcohol and drug abuse of alcoholics and addicts. Several family therapy modalities will be explored. The approach will be experiential in format and students will participate in exercises that lead to the development of these skills.

AODS 298 Directed Field Experience I (5)
3 hours lecture - 6 hours laboratory
Note: *Cross listed as PSYC 298/SOC 298*
Transfer acceptability: *CSU*
Supervised internship in a human service agency or an alcohol and other drug treatment facility. The student intern will have an opportunity to observe human service providers working with clients in agency settings. Ethical guidelines for helping professions, developing cultural competence, stages of change and motivational interviewing as a helping style are discussed. Interns practice interviewing skills for increasing motivation for positive change.

AODS 299 Directed Field Experience II (6)
3 hours lecture - 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AODS 140/SOC 140/PSYC 140 or AODS 298/SOC 298/PSYC 298*
Note: *Cross listed as PSYC 299/SOC 299*
Transfer acceptability: *CSU*
Supervised internship in an alcohol and other drug treatment facility. This course emphasizes advanced concepts in chemical dependency. Students refine their skills for the 12 core functions of effective clinical practice and compile a professional portfolio in preparation for the state certifying written exam. This course meets the 45-hour supervised practicum requirement for the California Certification Board of Alcohol and Drug Counselors.

American Indian Studies (AIS)

Contact the American Indian Studies Department for further information.
(760) 744-1150, ext. 2425
Office: P-8A
For transfer information, consult a Palomar College Counselor.

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• American Indian Studies

PROGRAM OF STUDY

American Indian Studies

The Certificate in American Indian Studies provides cultural knowledge and insight recognized by prospective employers such as state, federal, and tribal government agencies. Earning an AIS Certificate affords increased employment opportunities in such fields as archaeology, art, museums, education, social services, and resource management.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AIS 100	Introduction to American Indian Studies	3
AIS 101 or AIS 102	The American Indian Frontier Indian/U.S. Political System	3
AIS 105	History of Native American Arts	3
AIS 125	American Indians Today	3
AIS/ANTH 130	Prehistoric Cultures of North America	3

Electives
Complete a minimum of 6 units chosen from at least two categories.

Arts		
AIS 104	The Music of Native America	3
AIS 135	California Indian Arts	3
AIS 145	American Indian Literature	3
History		
AIS 110	History of the Plains Indian	3
AIS 115	A History of Southwest Indians	3
AIS 120	Indians of the Americas	3
AIS/ANTH 140	The Original Californians	3
AIS 170	Political/History Problems and Issues of California Indians	3
Language		
AIS 139	Native American Linguistics	3
AIS/FL 107A	Elementary Luiseño IA	3
AIS/FL 107B	Elementary Luiseño IB	3
AIS/FL 108A	Elementary Luiseño IIA	3
AIS/FL 108B	Elementary Luiseño IIB	3
AIS 151	Elementary Cupeño IA	3
AIS 152	Elementary Cupeño IB	3
AIS 153	Elementary Cupeño IIA	3
AIS 154	Elementary Cupeño IIB	3
AIS/CS/FL 161	Elementary Classical Nahuatl	3
Social and Behavioral Sciences		
AIS 150	American Indian Philosophy and Religion	3
AIS 155	American Indian Community Development	3
AIS 160	American Indian Education	3
AIS 165	Native Women in the Americas	3
AIS 175	American Indian Science and Technology	3
TOTAL UNITS		**21**

COURSE OFFERINGS

AIS 100 Introduction to American Indian Studies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
American Indian cultures in North America are studied from early cultures to contemporary society. A cross disciplinary approach examines applicable methods and theories from sciences and humanities.

AIS 101 The American Indian Frontier From Colonialism Through the Present (3)
3 hours lecture
Note: *This course plus AIS 102 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
The historical, economic, and cultural development of the American Indian in relation to European and American contact. Extensive use and analysis of historical sources from the colonial period through the present.

AIS 102 The American Indian and the U.S. Political System (3)
3 hours lecture
Note: *This course plus AIS 101 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC – maximum credit for one course: AIS 102, AIS 110, CS 102*
Surveys the role of American Indian people in the U.S. political system and institutions. Includes an examination of American Indian political structures and functions from pre contact period to contemporary as well as analysis of Federal Indian policy and leading issues and organizations that affect the American Indian community.

AIS 104 The Music of Native America (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Surveys both the traditional and contemporary Native American musical styles with an emphasis on North America. The impacts of Western influence are examined through the socio-cultural context of Native music.

AIS 105 History of Native American Arts (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An historical survey encompassing North, Meso, and South American Indian arts from pre-Columbian through contemporary periods. American Indian art forms are examined in terms of cultural context, history of styles, and artists.

AIS 107A Elementary Luiseño IA (3)
3 hours lecture
Note: *AIS 107A+107B correspond to one year of high school foreign language*
Note: *Cross listed as FL 107A*
Transfer acceptability: *CSU; UC*
This elementary level course is a study of the fundamentals of the Luiseño language, one of the four indigenous languages of San Diego County. This course will include a survey of Luiseño language phonology, morphology, syntax and grammar with special emphasis on culturally relevant terminology.

AIS 107B Elementary Luiseño IB (3)
3 hour lecture
Recommended preparation: *AIS/FL 107A*
Note: *AIS 107A + 107B correspond to one year of high school foreign language*
Note: *Cross listed as FL 107B*
Transfer acceptability: *CSU; UC*
This elelmentary course is a continuation of AIS 107A and reviews the phonology, morphology, syntax and grammar of the Luiseño language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

AIS 108A Elementary Luiseño IIA (3)
3 hours lecture
Recommended preparation: *AIS/FL 107B*
Note: *AIS 108A + 108B correspond to two years of high school foreign language.*
Note: *Cross listed as FL 107B*
Transfer acceptability: *CSU; UC*
This course is an elementary review of grammar, composition, and continued oral practice.

AIS 108B Elementary Luiseño IIB (3)
3 hours lecture
Recommended preparation: *AIS/FL 108A*
Note: *AIS 108A + 108B correspond to two years of high school foreign language.*
Note: *Cross listed as FL 108B*
Transfer acceptability: *CSU; UC*
This elementary course is a continued review of grammar, composition, and oral practice.

AIS 110 History of the Plains Indian (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An analysis of the Plains Indian. Examines lifestyles, mores, traditions, and tactics of war. Attention will be given to relations with the U.S. Government and to the background and evolution of acculturations.

AIS 115 A History of Southwest Indians (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A history, transculturation, and present culture of the Southwest Indians with emphasis upon their retention of traditional customs.

AIS 120 Indians of the Americas (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A cross cultural study of American Indian Peoples in South America, Meso America, and North America. Emphasis is placed on the contrast of societies as diverse as Incans, Amazonians, Eskimos, and Mayans.

AIS 125 American Indians Today (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The development of a greater sensitivity to the American Indian through analysis of ethnocentricism exhibited in contemporary American pluralistic society. This will be done through the analysis of stereotyping, history, cultural practice, and contemporary issues.

AIS 130 Prehistoric Cultures of North America (3)
3 hours lecture
Note: *Cross listed as ANTH 130*
Transfer acceptability: *CSU; UC*
Emphasis given to prehistoric cultural traditions of the Eastern Woodlands, Central Plains, and Far Western United States and Canada. Special concern for archaeological problems; reconstruction of these traditions and cultural changes.

AIS 135 California Indian Arts (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Emphasis on the regional styles of California tribal arts with analysis of the social, religious, political, and cultural contributions. A combination of lectures, slides, individual projects, small group discussions, field trips, and guest artists.

AIS 139 Native American Linguistics (3)
3 hours lecture
Transfer acceptability: *CSU*
This introductory linguistics course will enable the student to create a practical orthography and a basic standardized grammar for an endangered language with no written literary tradition.

AIS 140 The Original Californians (3)
3 hours lecture
Note: *Cross listed as ANTH 140*
Transfer acceptability: *CSU; UC*
Native people of California: Their origin, language, arts, customs religion, folklore, and music. Special emphasis on Southern California.

AIS 145 American Indian Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of historical and contemporary American Indian literature. Examines traditional and contemporary genres.

AIS 150 American Indian Philosophy and Religion (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The principles of American Indian philosophy and religious rites practiced prior to extensive European contacts with North American tribes, and the subsequent impact of European cultures on American Indian philosophy and religion.

AIS 151 Elementary Cupeño IA (3)
3 hours lecture
Note: *AIS 151 + 152 correspond to one year of high school foreign language.*
Transfer acceptability: *CSU; UC*
Elementary grammar, composition, and oral practice.

AIS 152 Elementary Cupeño IB (3)
3 hours lecture
Note: *AIS 151 + 152 correspond to one year of high school foreign language.*
Transfer acceptability: *CSU; UC*
Elementary grammar, review, composition, and continued oral practice.

AIS 153 Elementary Cupeño IIA (3)
3 hours lecture
Note: *AIS 153 + 154 correspond to two years of high school foreign language.*
Transfer acceptability: *CSU; UC*
Elementary grammar, review, composition, and continued oral practice.

AIS 154 Elementary Cupeño IIB (3)
3 hours lecture
Note: *AIS 153 + 154 correspond to two years of high school foreign language.*
Transfer acceptability: *CSU; UC*
Elementary grammar, review, composition, and continued oral practice.

AIS 155 American Indian Community Development (3)
3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Investigation and analysis of the relationship between the American Indian and the non Indian in contemporary society with special emphasis on fieldwork and research to explore existing programs and to develop solutions to problems originating from these programs.

AIS 160 American Indian Education (3)
3 hours lecture
Transfer acceptability: *CSU*
The historical development of American Indian education. Emphasis is placed on traditional philosophies as well as American philosophies as they relate to the educational process of the American Indian.

AIS 161 Elementary Classical Nahuatl (3)
3 hours lecture
Note: *Cross listed as CS 161/FL 161*
Transfer acceptability: *CSU; UC*
This is an introductory course on the Classical Nahuatl language of the Aztec Empire. Students will acquire a basic knowledge of Nahuatl morphology and syntax.

AIS 165 Native Women in the Americas (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Social and psychological comparison of the roles of native women in the Americas. Areas of emphasis shall include: kinship, childbearing, leadership, and religious roles. These will be examined in contemporary and traditional settings.

AIS 170 Political/History Problems and Issues of California Indians (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Examines the political structure and functions of American Indians in California as they relate to federal, state, and local governments. Includes analysis of problems and issues relevant to California Indians through an historical, political, and economic framework.

AIS 175 American Indian Science and Technology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introductory course in the development of scientific ideas in American Indian cultures as compared to other cultures in terms of context, practitioners, and technological applications. Primary comparison is with conventional Western areas of physical, biological, and applied sciences derived from scientific methodology.

AIS 197 American Indian Studies Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Topics in American Indian Studies. See class schedule for specific topic covered. Course title will designate subject covered.

AIS 207A Luiseno IIIA (3)
3 hours lecture
Recommended preparation: *AIS/FL 108B*
Note: *Cross listed as FL 207A*
Transfer acceptability: *CSU*
This intermediate level course is a study of the Luiseno language and culture(s), focusing on intermediate level culturally relevant authentic materials. Emphasis is on developing listening, oral, reading and writing skills in order to acquire proficiency in Luiseno.

AIS 207B Luiseno IIIB (3)
3 hours lecture
Recommended preparation: *AIS/FL 207A*
Note: *Cross listed as FL 207B*
Transfer acceptability: *CSU*
This intermediate level course is a continuation of the study of the language and culture of the Luiseno people emphasizing oral, listening, and reading skills.

AIS 295 Directed Study in American Indian Studies (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Independent study for students with demonstrated proficiency in American Indian Studies to engage in self-directed projects or research outside the context of regularly scheduled classes. Studies are supervised by an instructor.

American Sign Language (ASL)

Contact the Speech Communication/Forensics/ASL Department for further information.
(760) 744-1150, ext. 2405
Office: IT-7A

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• American Sign Language/English Interpreter Training Program

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• American Sign Language/English Interpreter Training Program

PROGRAM OF STUDY

American Sign Language/ English Interpreter Training Program

Preparation courses (for students not already competent in signing): ASL 100, 100L, 101, 101L, 105, 205, 205L, 206, and 206L.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ASL 110	Awareness of Deaf Culture	3
ASL 115	Perspective on Deafness	3
ASL 208	Interpreting as a Profession	3
ASL 210	Interpreting I	4
ASL 211	Interpreting II	4
ASL 215	Interpreting III	4
ASL 216	Interpreting IV	4
ASL 220	Specialized Settings of Interpreting	3
ASL 298	Fieldwork in Interpreting	1.5
ENG 100	English Composition	4
TOTAL UNITS		**33.5**

Upon successful completion of this program, students may elect to take a proficiency exam to determine eligibility for entry-level employment as ASL/English interpreters.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

ASL 97 Topics in American Sign Language (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
The course objectives will depend on the specific topic covered. A set of objectives will be developed for each topic class and included in an outline developed by the instructor.

ASL 100 American Sign Language I (4)
4 hours lecture
Transfer acceptability: *CSU; UC*
Introduction to the practice and use of American Sign Language.

ASL 100L American Sign Language I (Lab) (1)
3 hours laboratory
Prerequisite: *A minimum grade of "C" in ASL 100, or concurrent enrollment in ASL 100*
Note: *Pass/No Pass grading only, may be taken 2 times*
Transfer acceptability: *CSU*
Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 100.

ASL 101 American Sign Language II (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 100*
Transfer acceptability: *CSU; UC*
Continued development in American Sign Language.

ASL 101L American Sign Language II (Lab) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ASL 101, or concurrent enrollment in ASL 101*
Note: *Pass/No Pass grading only, may be taken 2 times*
Transfer acceptability: *CSU*
Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the merican Sign Language/English Interpreting Lab to improve comprehension of ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 101.

ASL 105 Fingerspelling (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to the American Manual alphabet (fingerspelling), including numbers, loan signs, acronyms and abbreviations commonly used in the Deaf community. Extensive drills and practice in both expressive and receptive skills.

ASL 110 Awareness of Deaf Culture (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to American Deaf Culture, the history, the community, and the language. Deaf cultural values, characteristics, and dynamics will be discussed as well as issues related to minority dynamics, the double/multiple minority experience, including but not limited to, Deaf African-Americans, Deaf Latinas/Latinos, Deaf Women, Deaf gays/lesbians, Deaf-blind, Deaf senior citizens, and the multiple combinations of these. Organizations and individual perceptions of self in relation to group identity, along with political views as examined through articles, books, and videotaped interviews will be studied.

ASL 115 Perspectives on Deafness (3)
3 hours lecture
Transfer acceptability: *CSU*
The historical and current implications of deafness. Communication philosophies and systems, educational approaches, and varying philosophies concerning the education and communicating techniques of the Deaf.

ASL 197 Topics in American Sign Language (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times.*
Transfer acceptability: *CSU*
Topics in American Sign Language. See class schedule for specific topic covered. Course title will designate subject covered.

ASL 205 American Sign Language III (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 101*
Transfer acceptability: *CSU; UC*
Intermediate language, phrasing, and communication skills in American Sign Language.

ASL 205L American Sign Language III (Lab) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ASL 205, or concurrent enrollment in ASL 205*
Note: *Pass/No Pass grading only, may be taken 2 times*
Transfer acceptability: *CSU*
Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of advanced ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive and receptive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 205.

ASL 206 American Sign Language IV (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 205*
Transfer acceptability: *CSU; UC*
Advanced language, phrasing, and communication skills in American Sign Language.

ASL 206L American Sign Language IV (Lab) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ASL 206, or concurrent enrollment in ASL 206*
Note: *Pass/No Pass grading only; may be taken 2 times*
Transfer acceptability: *CSU*
Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of advanced ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive and receptive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 206.

ASL 208 Interpreting as a Profession (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 206*
Transfer acceptability: *CSU*
Develops insight into the value of interpreting as a profession. Includes instruction on national testing standards, preparation for certification, and the necessity of ethics as outlined in the Interpreting Code of Ethics.

ASL 210 Interpreting I (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 110 and 206*
Recommended preparation: *ENG 100 and ASL 115*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course provides students with the cognitive skills necessary for interpreting between American Sign Language and English, including discourse analysis of source language messages, paraphrasing and summarizing techniques, and identification of main points. Emphasis is placed on the steps necessary to produce an equivalent target language message through translation, consecutive interpreting, and peer collaboration. Students will begin to develop the skills and knowledge necessary to become culturally sensitive, ethical, and professional interpreters. Primary language of instruction for class lectures and discussion will be ASL. Students are expected to have attained a reasonable level of competency in both ASL and English in order to have access to class lectures and participate fully in class discussions and activities, as instruction will occur in both languages.

ASL 211 Interpreting II (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 208 and ASL 210*
Recommended preparation: *ENG 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course is designed to improve student ability to perform the components involved in the process of interpreting as learned in Interpreting I. Primary emphasis is placed on the development of cognitive and linguistic skills, consecutive interpretation, and interpretation of interactive video dialogues between Deaf and hearing people. Students will begin applying skills learned to basic simultaneous interpreting tasks. Further development of language fluency in both American Sign Language (ASL) and English should occur as a result of this course, as instruction will occur in both languages.

ASL 215 Interpreting III (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 211 and ASL 220*
Recommended preparation: *ENG 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course is a continuation of Interpreting II. Primary emphasis is placed on the development of simultaneous ASL/English interpreting/transliterating tasks. Further development of language fluency in both American Sign Language (ASL) and English should occur as a result of this course. Development of multi-tasking skills enables students to begin interpreting more complex discourse such as that in a higher register or of substantive cognitive-academic content. Students are expected to have attained a reasonable level of competency in both ASL and English in order to have access to class lectures and participate fully in class discussions and activities, as instruction will occur in both languages.

ASL 216 Interpreting IV (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 215*
Corequisite: *ASL 298*
Recommended preparation: *ENG 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course is a continuation of Interpreting III. Emphasis is placed on the enhancement of simultaneous ASL/English interpreting of complex discourse through increased fluency, speed and accuracy. Students will improve equivalence between source and target language while performing simultaneous interpreting and/or transliterating tasks. Students are expected to have attained a reasonable level of competency in both ASL and English in order to have access to class lectures and participate fully in class discussions and activities, as instruction will occur in both languages.

ASL 220 Specialized Settings of Interpreting (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 206, or concurrent enrollment in ASL 206*
Transfer acceptability: *CSU*
This course discusses professional, ethical, technical, and logistical factors involved when interpreting between American Sign Language and spoken English in various settings. Specialized settings introduced in this course include: educational, mental health, legal, medical, social services, business, religious, platform, and performing arts. Telephone, Deaf-blind and oral interpreting will also be discussed. The primary language of instruction will be American Sign Language.

ASL 298 Fieldwork in Interpreting (1.5)
4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ASL 216, or concurrent enrollment in ASL 216*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
The purpose of this course is for students to apply skills and knowledge gained from previous interpreting coursework to actual interpreting assignments. Students will begin interpreting or transliterating, with appropriate supervision and in appropriate situations, for actual assignments. Students will have opportunities to observe qualified working interpreters in a variety of settings. Community service and classroom seminar discussions on professional, ethical, technical and logistical aspects of interpreting will also be included in course content. Students must demonstrate adequate ASL to English and English to ASL performance on an exit exam.

American Studies (AMS)

Contact the American Indian Studies Department for further information.
(760) 744-1150, ext. 2425
Office: P-8A
For transfer information, consult a Palomar College Counselor.

COURSE OFFERINGS

AMS 100 American Culture and Identity (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Identity and values, such as the arts, beliefs, and social forms, as expressed in lifestyles. Regional and interdisciplinary approaches will be used to build a dynamic model of American culture and its impact on Americans and the world.

AMS 105 American West: Images and Identities (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The study and exploration of the unique role of the American West in shaping Native American and immigrant cultures is revealed through varied images in visual arts, literature, and music. These images, from deep spiritual metaphors to progressive impulses, influenced American values and dreams that prevail into today's global arena. Students will examine and analyze various primary sources available through archives and virtual exhibits.

AMS 110 Diverse Cultures in America Today (3)
3 hours lecture
Note: *Cross listed as MCS 110*
Transfer acceptability: *CSU; UC*
An investigation of prevalent cultural trends in four groups of diverse ethnic and cultural backgrounds in America -- African Americans, Latinos, Chinese, and people of Jewish heritage -- since World War II. Emphasis will be placed on the literary, musical, and artistic expressions of their heritage, social conditions, struggle to become part of the main culture, and response to prejudice, racial, and religious discrimination. Selections dealing with social conditions will include such diverse issues as family life, intergenerational conflicts, and religious traditions.

AMS 182 Introduction to Arts Management (3)
9 hours laboratory
Note: *Cross listed as ART 182/DNCE 182/MUS 182/TA 182*
Transfer acceptability: *CSU*
An introduction to the principles and practices of arts management through an interdisciplinary study of management topics in the visual and performing arts.

AMS 183 Internship in Arts Management (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in ART/DANCE/MUS or TA 182*
Note: *Cross listed as ART 183/DNCE 183/MUS 183/TA 183*
Transfer acceptability: *CSU*
Practical experience in arts management in the visual and performing arts.

AMS 200 Race, Class, and Ethnic Groups in America (3)
3 hours lecture
Note: *Cross listed as MCS 200/SOC 200*
Transfer acceptability: *CSU; UC – AMS/MCS/SOC 200 combined: maximum credit, one course*
This course is designed to introduce the topics of intergroup relations in general to superordinate-subordinate relations in particular, as exemplified in various racial, ethnic, social class, and cultural groups. Emphasis is primarily on contemporary relations in the United States, although a comparative perspective is also offered.

Anatomy

See Zoology

Anthropology (ANTH)

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2330
Office: W-1
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Archaeology

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Archaeological Excavator
• Archaeological Surveyor and Laboratory Assistant

PROGRAMS OF STUDY

Students desiring a career in the field of archaeology or other fields of anthropology have the option of selecting a program leading to the Associate in Arts Degree and/or one or two programs leading to Certificates of Achievement, depending upon their needs and desires.

Archaeological Excavator

Prepares student for employment as an archaeological site excavator.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ANTH 100	Introduction to Biological Anthropology	3
ANTH 105	Introduction to Cultural Anthropology	3
ANTH 110	Introduction to Archaeology	3
ANTH 120	Archaeological Excavation	3
ANTH/AIS 130	Prehistoric Cultures of North America	3
ANTH/AIS 140 or	The Original Californians	3
ANTH 121 and	Cultural Resource Management	2
ANTH 297	Special Problems in Archaeology	2
ANTH 205	Advanced Archaeological Excavation	3
TOTAL UNITS		**22**

Archaeological Surveyor and Laboratory Assistant

Prepares student for employment as an archaeological surveyor and laboratory assistant.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ANTH 100	Introduction to Biological Anthropology	3
ANTH 105	Introduction to Cultural Anthropology	3
ANTH 110	Introduction to Archaeology	3
ANTH 120	Archaeological Excavation	3
ANTH 205 or	Advanced Archaeological Excavation	
ANTH 220	Advanced Archaeological Surveying	3
ANTH 210	Archaeological Surveying	3
ANTH 215	Archaeological Laboratory Analysis	3
TOTAL UNITS		**21**

Archaeology

Provides the student with training which will enhance employment opportunities as a para-professional archaeologist as well as sufficient background to begin upper division work in anthropology.

A.A. DEGREE MAJOR

Program Requirements		Units
ANTH 100	Introduction to Biological Anthropology	3
ANTH 105	Introduction to Cultural Anthropology	3
ANTH 110	Introduction to Archaeology	3
ANTH 120	Archaeological Excavation	3
ANTH 121	Cultural Resource Management	2
ANTH 130/		
AIS 130 or	Prehistoric Cultures of North America	
ANTH/AIS 140	The Original Californians	3
ANTH 205	Advanced Archaeological Excavation	3
ANTH 210	Archaeological Surveying	3
ANTH 215	Archaeological Laboratory Analysis	3
ANTH 225	Historical Archaeology	3
Electives (Select 5 units from Groups One and/or Two)		
Group One		
AIS 150	American Indian Philosophy and Religion	3
ANTH 125	Evolution, Science & Religion	3
ANTH/AS 126	Cultures of Africa	3
ANTH 135	Magic and Folk Religions	3
ANTH 145	Cultures of the Pacific Rim	3
ANTH/CS 155	Ancient Civilizations of Meso America	3
ANTH 296	Special Problems in Anthropology	1, 2, 3
GEOL 100	Physical Geology	3
Group Two (strongly recommended for focus on technical skills)		
ANTH 100L	Biological Anthropology Laboratory	1
ANTH 220	Advanced Archaeological Surveying	3
ANTH 297	Special Problems in Archaeology	1, 2, 3
ARCH/DT 125	AutoCAD Intro to Computer Aided Drafting	3
CE 150	Cooperative Education Internship	2, 3
CSIT 135	Access	1
GEOG 120	Intro Geog Info Sys/Software	4
GEOG 132	Database Mgmt/Data Acquisition	4
GEOG 134	GIS Applications	2
GEOG 136	Intermediate ArcGIS: GIS Analysis	2
GEOG 138	GIS Internship	2
PHOTO 230	Digital Darkroom	3
PSYC/SOC 205	Statistics for the Behavioral Sciences	3
TOTAL UNITS		**34**

COURSE OFFERINGS

An activity may be taken four times for credit. Activity is defined to include all ability levels (e.g., A student may take a total of only four Archeological Excavation courses for credit).

ANTH 100 Introduction to Biological Anthropology (3)
3 hours lecture
Transfer acceptability: *CSU; UC – ANTH 100/100L and 101 combined: max credit, 4 units*
Human bio cultural origins. The place of humans in nature. Fossil evidence for human and other primate evolution; genetic variability; primate behavior; relationship of physical and cultural adaptations.

ANTH 100L Biological Anthropology Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ANTH 100, or concurrent enrollment in ANTH 100*
Transfer acceptability: *CSU; UC*
This laboratory course provides an introduction to the methods and techniques used in research in physical/biological anthropology. The topics under study include: the scientific method, principles of evolution, human genetics, human osteology, anthropometrics, forensic anthropology, anatomy and behavior of living nonhuman primates, and paleoanthropology.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

ANTH 101 Introduction to Biological Anthropology (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU; UC*
The lecture and laboratory course provides an introduction to the methods and techniques used in research in biological anthropology. The topics under study include: the scientific method, principles of evolution, human genetics, human osteology, anthropometrics, forensic anthropology, anatomy and behavior of living nonhuman primates, and paleoanthropology.

ANTH 105 Introduction to Cultural Anthropology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to the study of concepts, theories, and methods used in the comparative study of sociocultural systems. The course typically includes subjects such as subsistence patterns, social and political organization, language and communication, family and kinship, religion, the arts, social inequality, ethnicity, gender, culture change and the application of anthropological perspectives to contemporary issues.

ANTH 107 Language and Culture (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to linguistic anthropology, the study of language, culture and society from an anthropological perspective. Topics include the biology of language, anthropological theories of language origin, language structure, the relationship between language and culture, language variation, and nonverbal communication.

ANTH 110 Introduction to Archaeology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction covering the history, objectives, and methods of archaeology; significant discoveries throughout the old and new worlds, and the history and nature of culture as revealed by archaeology as an anthropological study. Field studies in local areas may be included.

ANTH 115 Comparative Societies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the world's diverse peoples and customs as presented in films, lectures, and case study readings.

ANTH 120 Archaeological Excavation (3)
1 hour lecture-6 hours laboratory
Transfer acceptability: *CSU*
Archaeological field techniques to include a minimum of 90 hours of in field experience. Course will include excavation, use of instruments/tools, and preparation of a project analysis or report.

ANTH 121 Cultural Resource Management (2)
2 hours lecture
Recommended preparation: *ANTH 120*
Transfer acceptability: *CSU*
The historical, legal, and operational contexts of Cultural Resource Management (CRM or Applied Archaeology). Historical and legal contexts focus on key legislation, such as the National Historic Preservation Act and the California Environmental Quality Act. The operational context focuses on the phases of CRM research in the context of technological innovations, budget and time constraints, Native American consultation, and the goals of CRM technical reports.

ANTH 125 Evolution, Science and Religion (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The course focuses on the long-standing debate surrounding biological evolution and various religious views of creation. The evidence and arguments offered for and against evolution and creationist world views are examined in the context of science and the scientific method, the influence of cultural and personal values, the nature and use of evidence, and the difference between knowledge and belief.

ANTH 126 Cultures of Africa (3)
3 hours lecture
Note: *Cross listed as AS 126*
Transfer acceptability: *CSU; UC*
Introduction to the indigenous peoples and cultures of Africa. Brief prehistoric and historic background of the continent. Comparative study of traditional cultures representative of the continent's diversity. Focus on social, economic, political, religious and aesthetic life, and culture change.

ANTH 130 Prehistoric Cultures of North America (3)
3 hours lecture
Note: *Cross listed as AIS 130*
Transfer acceptability: *CSU; UC*
Emphasis given to prehistoric cultural traditions of the Eastern Woodlands, Central Plains, Far Western United States, and Canada. Special concern for archaeological problems, reconstruction of these traditions and cultural changes.

ANTH 135 Magic and Folk Religions (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Anthropological view of the relationships between magic and religion as expressed in rituals, myths, and art is explored through a survey of the less formal or minor religious systems of the world.

ANTH 137 Medical Anthropology: Culture, Illness and Healing (3)
3 hours lecture
Transfer acceptability: *CSU*
This course is a cross-cultural survey of health, illness and healing in small-scale societies as well as modern societies from a cultural, biological, and ecological perspective. Topics covered include perceptions of the body, perceptions of disease, life phases, culture-specific syndromes, healing practices, healers, nutrition, and healing and medical systems.

ANTH 140 The Original Californians (3)
3 hours lecture
Note: *Cross listed as AIS 140*
Transfer acceptability: *CSU; UC*
Native people of California: Their origin, language, arts, customs, religion, folklore, and music. Special emphasis on Southern California.

ANTH 155 Ancient Civilizations of Meso America (3)
3 hours lecture
Note: *Cross listed as CS 155*
Transfer acceptability: *CSU; UC*
Civilizations of Pre Columbian Mexico and Central America with a focus on their origins and achievements.

ANTH 205 Advanced Archaeological Excavation (3)
1 hour lecture-6 hours laboratory
Recommended preparation: *ANTH 120*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Training in excavating archaeological features. Specialized field techniques, Archaeological theory as it applies to site interpretation.

ANTH 210 Archaeological Surveying (3)
2 hours lecture-2 hours lecture/laboratory
Recommended preparation: *ANTH 120*
Transfer acceptability: *CSU*
Archaeological surveying techniques including field reconnaissance, use of topographical maps, site recording, and preparation of a project analysis or report.

ANTH 215 Archaeological Laboratory Analysis (3)
2 hours lecture-2 hours lecture/laboratory
Recommended Preparation: *ANTH 120*
Transfer acceptability: *CSU*
Training in the laboratory analysis of stone, ceramic, bone, and other artifacts as well as elementary archaeological theory, statistics, and report preparation.

ANTH 220 Advanced Archaeological Surveying (3)
2 hours lecture-2 hours lecture/laboratory
Recommended preparation: *ANTH 210*
Transfer acceptability: *CSU*
Advanced archaeological survey techniques including sample survey, site relocation, and the use of Global Positioning System (GPS) and laser transit hardware and software for site recordation, data conversion, site mapping, and the completion of a mapping program.

ANTH 225 Historical Archaeology (3)
2 hours lecture-2 hours lecture/laboratory
Recommended preparation: *ANTH 120*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Method and theory of historical archaeology, including archival research, artifact identification, and report preparation. Training in the location and interpretation of archival documents, such as Franciscan Mission records, Spanish land grant documents, homestead patents, Sanborn fire insurance maps, assessor's records, and historical topographic maps. Training in the identification of ceramic, glass and metal artifacts and their associated function, method of manufacture, manufacturer, and temporal distribution.

ANTH 296 Special Problems in Anthropology (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *ANTH 296 and 297 may be taken 4 times as Archaeology AA degree electives for a combined maximum of 6 units.*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
An individualized or group project in cultural or physical anthropology of any nature approved by the instructor and under the personal supervision of the instructor.

ANTH 297 Special Problems in Archaeology (1, 2, 3)
3, 6 or 9 hours laboratory
Note: *ANTH 296 and 297 may be taken 4 times as Archaeology AA degree electives for a combined maximum of 6 units.*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
An individualized or group project in archaeology approved by the instructor and under the personal supervision of the instructor.

Apprenticeship Training (AP)

Acoustical Installer, Carpentry, Drywall/Lather, Electrician, Inside Wireman, Plasterer, Residential Wireman, Sheet Metal, Sound and Communication Systems, Sound Technician

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2600
Office: AA-138

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Acoustical Installer
- Carpentry
- Drywall/Lather
- Electrician
- Inside Wireman
- Plasterer
- Residential Wireman
- Sheet Metal
- Sound and Communication Systems Installer
- Sound Technician

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Acoustical Installer
- Carpentry
- Drywall/Lather
- Electrician
- Inside Wireman
- Plasterer
- Residential Wireman
- Sheet Metal
- Sound and Communication Systems Installer
- Sound Technician

PROGRAMS OF STUDY

A program for the training of apprentices, consisting of full-time, on-the-job employment plus related classroom instruction.

A CERTIFICATE OF ACHIEVEMENT and/or JOURNEYPERSON TRADE CERTIFICATE will be awarded to students for each program successfully completed. Students who wish to obtain an Associate in Arts Degree may do so by fulfilling the general graduation requirements in addition to the completion of the apprenticeship courses.

A program is maintained for the training of apprentices in the trades as listed. Students who wish to become apprentices should appear before the appropriate Joint Apprenticeship Committee. Training consists of full-time work on-the-job supplemented by related classroom instruction. All students entered in the apprenticeship work experience program are expected to enter AP WE 110, 111, 112, 113, or 114. A maximum of 16 units, Pass/No Pass only, may be earned in Cooperative Work Experience Education, not to exceed 8 units each semester.

Students whose work or attendance is not satisfactory may be dropped from the program by the College, or other corrective measures may be taken by the Joint Apprenticeship Committee. The College grants academic credit for the successful completion of the training program.

Upon completion of the training program, journeyperson trade certificates and college achievement certificates are awarded at a special completion ceremony.

The final digit in the course number indicates that period of apprenticeship.

SAFETY GLASSES - Education Code 32030-32034 requires that safety glasses be worn in those classes where eye damage might occur. Students in such classes will be so informed by their instructors. Glasses are available at the college bookstore.

Acoustical Installer (AP AC)

A three-year apprenticeship program. Applicants for this program should be directed to the Carpenters Joint Apprenticeship and Training Committee for Southern California, San Diego Carpenters Training Center, 8595 Miralani Drive, San Diego, CA 92126. Telephone (858) 621-2667.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP DL/AP PL/ AP AC 201	Orientation	1.5
AP DL/AP PL/ AP AC 202	Safety and Health Certifications	1.5
AP DL/AP PL/ AP AC 203	Printreading	1.5
AP DL/AP PL/ AP AC 204	Advanced Printreading	1.5
AP AC 205	Acoustical Ceilings	1.5
AP AC 206	Standard Acoustical Grids	1.5
AP AC 207	Suspended Ceilings	1.5
AP AC 208	Soffits	1.5
AP AC 209	Prefab/Sound Panels	1.5
AP AC 210	Concealed/Glue-up/Staple-up System	1.5
AP AC 211	Compasso	1.5
AP AC 212	Metal Pan and Security Systems	1.5
AP AC 213	Advanced Acoustical Installation	1.5
AP AC 214	Advanced Acoustical Layout	1.5
AP WE 112	Drywall/Acoustical Work Experience	16
TOTAL UNITS		**37**

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

COURSE OFFERINGS

AP AC 197 Acoustical Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Acoustical. See Class Schedule for specific topic offered. Course title will designate subject covered.

AP AC 201 Orientation (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Cross listed as AP DL 201/AP PL 201; may be taken two times*
Introduction to the Interior Systems program. Content includes safe and proper usage of hand tools, power/powder tools, an introduction to trade related math, beginning blueprint reading and layout. Certifications will include Ramset/Red Head or Hilti low velocity power/powder actuated tools and scaffold erector/dismantler (welded frame).

AP AC 202 Safety and Health Certifications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 202/AP PL 202; may be taken two times*
Designed to incorporate learning theories, methods and techniques that meet the needs of the Interior Systems industry. Content includes certification in forklift, aerial lift, American Red Cross, First Aid/CPR and OSHA 10.

AP AC 203 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 203/AP PL 203; may be taken two times*
This course is designed to teach the basics of reading, understanding and visualizing the blueprints. Terms, symbols and definitions from several trades will be incorporated. Prints showing both residential and commercial application will be used. Related safety, math and blueprint reading will be covered.

AP AC 204 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP AC 203/AP DL 203*
Note: *Cross listed as AP DL 204/AP PL 204; may be taken two times*
This course will give the student more in depth training related to on the job conditions. Basic estimating, material take offs and organizing jobs will be included.

AP AC 205 Acoustical Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in acoustical ceilings, seismic codes and the theory behind them. Practical application in wall molds and trims, ceiling layout and material identification.

AP AC 206 Standard Acoustical Grids (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in acoustical grid installation such as 2 x 4 and 2 x 2 flat "H" pattern, radius, gable and diagonal ceilings.

AP AC 207 Suspended Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in the technical skills required to install circular ceilings with drops, drywall suspension grid in both square and circular areas.

AP AC 208 Soffits (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Focus on advanced knowledge and skills required to construct square and slant faced, tapered, concealed, drywall suspension, and sloped soffits.

AP AC 209 Prefab/Sound Panels (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in the technical knowledge and skills required for installation of sound panels and prefabricated wall and ceiling panel systems.

AP AC 210 Concealed/Glue-up/Staple-up System (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in concealed and semi-concealed ceilings and soffits. Both technical knowledge and skills will be used in assembling these ceilings.

AP AC 211 Compasso (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Advanced instruction and application in concealed systems to include installation of air bars, double soffits and compasso. Hand tools are mandatory.

AP AC 212 Metal Pan and Security Systems (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in the technical knowledge and skills needed to work with these "high end" products. Hand tools and gloves are mandatory.

AP AC 213 Advanced Acoustical Installation (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Identifies the materials and methods used for the advanced installation of acoustical ceilings. Installation for custom and intricate grid systems will be discussed. Green building rating systems will be applied to selected acoustical materials. Students will use the skills presented to complete a complex acoustical ceiling project as part of this course.

AP AC 214 Advanced Acoustical Layout (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Explains the advanced layout methods used to complete complex acoustical system installations. Seismic codes and requirements are also reviewed. Layout techniques for establishing intricate geometric designs for ceiling grids will be discussed and practiced. Students will use the skills presented to complete selected multifaceted acoustical ceiling layout projects as part of this course.

Carpentry (AP C)

A four-year apprenticeship program. Applicants for this program should be directed to the Carpenters Joint Apprenticeship and Training Committee for Southern California, San Diego Carpenters Training Center, 8595 Miralani Drive, San Diego, CA 92126. Telephone (858) 621-2667.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AP C 201	Orientation	1.5
AP C 202	Safety and Health Certification	1.5
AP WE 111	Carpentry Work Experience	16
Electives (Select 14 courses)		
AP C 203	Printreading	1.5
AP C 204	Advanced Printreading	1.5
AP C 205	Foundation and Flatwork	1.5
AP C 206	Flatworks	1.5
AP C 207	Tilt-Up Panel Construction	1.5
AP C 208	Wall Forming	1.5
AP C 209	Gang Forms/Columns	1.5
AP C 210	Patented Forming Systems	1.5
AP C 211	Architectural Concrete	1.5
AP C 212	Column Forms	1.5
AP C 213	Beam and Deck Forming	1.5
AP C 214	Basic Commercial Framing	1.5
AP C 215	Advanced Commercial Framing	1.5
AP C 216	Commercial Floor Framing	1.5
AP C 217	Basic Stairs	1.5

AP C 218	Advanced Stairs	1.5
AP C 219	Exterior Finish Details	1.5
AP C 221	Basic Roof Framing	1.5
AP C 223	Basic Metal Framing	1.5
AP C 225	Transit Level/Laser	1.5
AP C 226	Bridge Construction	1.5
AP C 227	Stair and Ramp Forming	1.5
AP C 228	Stair Trim	1.5
AP C 229	Cabinet Millwork and Assembly	1.5
AP C 230	Cabinet Installation	1.5
AP C 235	Molding and Trim	1.5
AP C 236	Plastic Laminates	1.5
AP C 237	Door and Door Frames	1.5
AP C 239	Door and Door Hardware	1.5
AP C 245	Commercial Fixtures	1.5
AP C 246	Showcases and Loose Store Fixtures	1.5
AP C 247	Basic Suspended Scaffold	1.5
AP C 248	Advanced Suspended Scaffold	1.5
AP C 249	Basic Systems Scaffold	1.5
AP C 250	Intermediate Systems Scaffold	1.5
AP C 251	Advanced Systems Scaffold	1.5
AP C 252	Basic Frame Scaffold	1.5
AP C 253	Intermediate Frame Scaffold	1.5
AP C 254	Advanced Frame Scaffold	1.5
AP C 255	Basic Tube & Clamp Scaffold	1.5
AP C 256	Scaffold in Confined Spaces	1.5
AP C 257	Specialty Scaffold Applications	1.5
AP C 258	Scaffold Reshoring	1.5
AP C 259	Scaffold - Printreading	1.5
AP C 260	Scaffold - Advanced Printreading	1.5
AP C 261	Basic Wall Framing	1.5
AP C 262	Intermediate Stairs	1.5
AP C 263	Advanced Roof Framing	1.5
AP C 264	Abutments	1.5
AP C 265	Rigging	1.5
AP C 266	Solid Surface	1.5
AP C 267	Panelized Roof	1.5
AP C 268	Fitting Rooms/Partitions	1.5
AP C 269	Exit and Electrical Security Devices	1.5
AP C 197	Carpentry Topics	1.5
TOTAL UNITS		**40**

COURSE OFFERINGS

AP C 197 Carpentry Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California*
Note: *May be taken 4 times*
Topics in Carpentry. See Class Schedule for specific topic offered. Course title will designate subject covered.

AP C 201 Orientation (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California*
Note: *May be taken 2 times*
Introduces the use of various hand and power tools used in the trade. Students will be introduced to the history of trade apprenticeships. Construction math and job site safety practices will also be covered.

AP C 202 Safety and Health Certification (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 201*
Note: *May be taken 2 times*
Provides the apprentice with various safety competencies. Students will demonstrate the ability to construct a welded frame scaffold to OSHA standards as well as the operation of a lift truck. In addition they will be introduced to blueprints and their use.

AP C 203 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
The first of two classes in blueprint reading. Covers the fundamental functions and structure of blueprints. Construction drawings, line symbols, freehand sketching as well as pictorial drawings will be covered.

AP C 204 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 203*
Note: *May be taken 2 times*
Second of two courses in blueprint reading. Covers foundation prints, commercial prints, residential prints and estimating. Construction specifications will also be covered.

AP C 205 Foundation and Flatwork (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Covers the design and function of several types of foundations and concrete flatwork. The methods, techniques and procedures for formwork layout, elevation, and construction will be presented. Jobsite safety, print interpretation, material identification, and basic use of the builders level will be included in the training. Students will construct three selected formwork projects.

AP C 206 Flatworks (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to show the various applications of forming to include slab-on-grade, driveways and walks, and curb and gutter forms. Related safety, math and blueprint reading will be covered.

AP C 207 Tilt-Up Panel Construction (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Designed to give an overview of the Tilt-Up industry. Form techniques and panel hardware will be discussed. Related safety, math and blueprint reading will be covered.

AP C 208 Wall Forming (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduces the basic techniques of poured-in-place concrete wood form construction. Related safety, math and blueprint reading will be covered.

AP C 209 Gang Forms/Columns (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Presents the formwork types and construction methods for gang form and column installations. Discussions will cover heavy timber gang forms and use of taper ties, bracing, and bulkhead tables. The course project will include gang and column formwork construction, assembly, and hardware installation tasks. Related safety, math and print reading will be covered in the training.

AP C 210 Patented Forming Systems (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Proprietary wall forming systems such as Atlas, EFCO, and Symons are an integral part of the concrete industry. Students will be instructed in the application and rigging of these systems.

AP C 211 Architectural Concrete (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
In this course the forming of poured-in-place columns will be covered, with instruction and practice in both job-built.

AP C 212 Column Forms (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*

In this course the forming of poured-in-space columns will be covered, with instruction and practice in both job-built and the proprietary systems, and the shoring and forming of drop heads. Estimating, safety, and rigging of materials will be included. Math and blueprint reading will be covered.

AP C 213 Beam and Deck Forming (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course will introduce the use of various wood and patented forming systems used in the construction of concrete beams and decks. Metal beam forms and capitals will be taught in this class. Layout and builders level skills will be used in this class.

AP C 214 Basic Commercial Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Provides an introduction to the theory and practice of wall framing. Students start by learning to read floor plans, and then laying out wall locations, plate and detail, as well as openings and structural connections. Construction math and job site safety practices will also be covered.

AP C 215 Advanced Commercial Framing (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 214*
Note: *May be taken 2 times*
Covers layout, assembly, and erection of both standard and raked walls. Application of bracing, plumbing and aligning walls will be covered, along with construction math, blueprint reading and job site safety practices.

AP C 216 Commercial Floor Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Covers the layout and construction of both residential and commercial floor framing. The use of building codes and blueprint reading will be covered. Fall protection along with job site safety and construction math will also be covered.

AP C 217 Basic Stairs (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Stair construction is an integral part of the carpenter's trade. This course presents stair theory, related mathematics, code requirements, and basic layout stringers, treads and risers. Students will layout, cut, and erect a straight-run stair. Blueprint reading and safety will also be covered.

AP C 218 Advanced Stairs (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 217*
Note: *May be taken 2 times*
Builds upon the concepts presented in Stair Building I. This class will teach students about winders, u-shaped and radius stair building, as well as code requirements and mathematical calculations. Blueprint reading and safety will also be covered.

AP C 219 Exterior Finish Details (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Teaches students to read blueprints related to building exteriors such as elevations, sections, and schedules. Construction of structural and architectural elements such as balconies, fireplaces, bay windows, columns and pop-outs. Blueprint reading, mathematical calculations and safety will also be covered.

AP C 221 Basic Roof Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Roof construction is one of the most challenging and satisfying facets of carpentry. Introduces rafter theory and layout. Students will construct a gable roof using conventional and truss methods. Mathematical calculations for various rafter lengths and safety will also be covered.

AP C 223 Basic Metal Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduces the student to the technology of metal framing. Tools and materials will be covered along with floor and wall construction, including openings and structural connections, and metal truss roof systems. Mathematical calculations for various rafter lengths and safety will also be covered.

AP C 225 Transit Level/Laser (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Addresses form design, material estimating and problems relative to form construction. Related safety, math and blueprint reading will be covered.

AP C 226 Bridge Construction (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Provides students with an overview of basic bridge construction. Descriptions for exterior and interior girders, edge forms, bulkheads and hinge forms will be presented. Formwork project will include panel construction, assembly, and hardware installation tasks. Related safety, math and print reading will be covered in the training.

AP C 227 Stair and Ramp Forming (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Designed to teach the various techniques used to form stairs and ramp structures. Related safety, math and blueprint reading will be covered.

AP C 228 Stair Trim (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Covers a variety of moldings, installation for interior stairs, blueprint, and finish schedules, math and related safety regulations.

AP C 229 Cabinet Millwork and Assembly (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduction to basic cabinet construction. Blueprint and finish schedules will be covered as well as related safety and math.

AP C 230 Cabinet Installation (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Installation of base and wall-hung cabinets, scribing techniques, and how to read blueprint and finish schedules. Related safety and math will also be covered.

AP C 235 Molding and Trim (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduction to various moldings and the specific installation techniques of each. Blueprint, finish schedules, related safety and math will also be covered.

AP C 236 Plastic Laminates (1.5)
1 hour lecture-1½ hours laboratory
Note: *May be taken 2 times*
Introduction to the manufacture and installation of plastic laminates on horizontal and vertical surfaces to include instruction in cutting and scribing. Blueprint, finish schedules, and related safety and math will also be covered.

AP C 237 Door and Door Frames (1.5)
1 hour lecture-1½ hours laboratory
Note: May be taken 2 times
Introduction to doors and door hardware schedules, specifications and manufacturer's catalogs. Fire codes that govern the hardware industry as well as how to identify various door hardware including locksets, closures, hinges, panic hardware and door sweeps etc. Blueprint, finish schedules, and related safety and math will also be covered.

AP C 239 Door and Door Hardware (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduction to the selection and installation of proper hinge and door-closure hardware. Blueprints, finish schedules, and related safety and math will also be covered.

AP C 245 Commercial Fixtures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Includes print interpretation and fabrication techniques used in the preparation and installation of commercial store fixtures. An emphasis will be placed on accurate measuring, proper hand and power tool use, and safety. Students will calculate materials to create cut lists, and fabricate, assemble and install wall panel and valance fixtures.

AP C 246 Showcases and Loose Store Fixtures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Includes the basic cabinetmaking skills and construction techniques used in the installation of commercial store fixtures. An emphasis will be placed on measuring, hand and power tool use and safety. Students will interpret prints and material bills for the handling, locating and accurate placement of showcase components and loose store fixtures.

AP C 247 Basic Suspended Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Basic techniques and procedures associated with suspended scaffolds. The terminology and use of scaffold components in a cable suspended configuration will be the focus of this training. Construction practices and safety will be taken into consideration as students erect equipment using project design plans for this cable suspended scaffold.

AP C 248 Advanced Suspended Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Advanced techniques and procedures required when constructing suspended scaffolds supported by structural members. Students will identify the suitable structural components for this application type. The methods used to determine load bearing capability of structural elements will be presented. The hazards and precautionary techniques associated with safely building this type of suspended platform will be the focus of this training.

AP C 249 Basic Systems Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Basic techniques and procedures associated with systems scaffold components. Terminology and components unique to this category of equipment will be discussed. Construction practices and safety considerations will be a major focus of the class. Students will identify and erect equipment using the custom configurations for jobsites where this type of scaffold is most frequently utilized.

AP C 250 Intermediate Systems Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Enhancement of basic system scaffold erecting ability through the application of cantilevered design methods. The variation of standard system construction techniques and procedures necessary to safely erect platforms extending beyond a typical scaffold base arrangement will be covered. Students will apply methods and erect equipment using custom configurations for jobsites where this type of skill is most valuable.

AP C 251 Advanced Systems Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Advanced techniques and procedures required when constructing scaffolds used in industrial boiler installation or repair applications. Students will identify surface obstacles and unique shapes indicative of this application. Students will apply common solutions for bridging voids and following equipment contours to construct the selected industrial simulated scaffold projects.

AP C 252 Basic Frame Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Basic techniques and procedures associated with frame scaffold components. The terminology and components unique to this category of equipment will be discussed. Construction practices and safety considerations will be a major focus of the class. Students will identify and erect equipment using basic configurations suitable for jobsites where this type of scaffold is most frequently utilized.

AP C 253 Intermediate Frame Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Augmentation of basic frame scaffold erecting ability through the introduction of obstacle and height problem solving skills. The variation of standard construction techniques and procedures necessary to accommodate structural, equipment or overhead restrictions will be provided. A major focus of the class will be construction practices and safety considerations. Students will identify and erect equipment using custom configurations for jobsites where this type of skill is most valuable.

AP C 254 Advanced Frame Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Advanced techniques and procedures associated with ground supported frame scaffold. Use of scaffold components for construction of various heavy-duty (industrial) elevated platforms will be the focus of this training. Safety precautions, building procedures and material utilization will be incorporated into the assigned tasks. Students will erect heavy-duty large scale platform scaffolds using project plans and designs for this industrial scaffold application.

AP C 255 Basic Tube and Clamp Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Basic techniques and procedures associated with tube and clamp scaffold components and erection methods. The terminology and components unique to this category of equipment will be discussed. Construction practices and safety considerations will be a major focus of the class. Students will identify and erect equipment using the custom configurations for jobsites where this type of scaffold is most frequently utilized.

AP C 256 Scaffold in Confined Spaces (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in safe access, entry and monitoring methods for confined space. Both CAL-OSHA and Federal OSHA regulation are covered in detail. The importance of a respirator fit test and respiratory protection training are covered in this course.

AP C 257 Specialty Scaffold Applications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Specialty scaffold applications focusing on ramps, chutes, and mobile towers suitable for light and heavy duty use. Students will identify the characteristics of commercial and industrial scaffold construction. The selected projects for this class will introduce the techniques and procedures used for access/egress, debris handling, and maintenance scaffolds.

AP C 258 Scaffold Reshoring (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Presents modified principles and techniques for the use of shoring equipment in a re-shore application. The importance of uniform loading and alignment of tower/tandem tower configurations will be explained. Students will identify and erect scaffold equipment using three types of configurations suitable for scaffold re-shoring purposes.

AP C 259 Scaffold-Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*

Fundamentals of reading construction prints. Scaffold print views, lines, dimensioning methods, symbols and details will be covered. In addition to print interpretation, sketching techniques will be introduced and students will draw several scaffold views incorporating the basic print elements presented during the class.

AP C 260 Scaffold-Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Expansion of basic printreading ability to include project take-off, estimation, and layout accuracy. Methods used to determine datum and reference locations will be covered. References will be taken from multi-view drawings and students will evaluate the information to locate and orient scaffold for accurate site placement.

AP C 261 Basic Wall Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Presents the theory, methods, and procedures required to frame basic walls. Hands-on practice using proper tool techniques and appropriate materials will enhance fundamental skill development. Beginning with an introduction to print reading, students will perform: basic wall layout; plating procedures; framing assembly and bracing; before aligning and completing selected wall construction project to industry standards.

AP C 262 Intermediate Stairs (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Uses floor plans and drawing elevations at an intermediate level to enhance basic stair construction skill development. Students will interpret prints to complete job planning, project layout, and material cut list for "L" shaped stair designs. Stair calculations will determine the number of stairs, landing height, stair thread and riser dimensions.

AP C 263 Advanced Roof Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Provides an introduction to hip roof framing, terminology and construction characteristics. Students will interpret print views and elevations for job planning; to determine rafter systems and layout details. Basic rise, run, rafter angles and length calculations will be performed. Framed wall construction will be incorporate to facilitate the hip roof assembly techniques and installation procedures that are the focus of this training.

AP C 264 Abutments (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Provides instruction in the detailing, layout and construction of abutments used in the heavy highway industry. The terms, components, materials, building techniques and procedures will be presented. The class project includes keyway, panel, head wall and wing wall construction

AP C 265 Rigging (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Presents both lifting theory and practical rigging methods and procedures. The design, characteristics and safety working load of lifting hardware will be discussed. Rigging attachment procedures, lifting equipment, limits of operation and communication practices will be covered.

AP C 266 Solid Surface (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Covers both basic and advanced assembly and installation techniques for use of solid surface materials. Manufacturer's products, materials, safety and design considerations will be included. Students will use the proper procedures to layout, cut shapes, form joints, add edges and backsplashes, and create design inlays for countertop installation projects.

AP C 267 Panelized Roof (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Covers the structural components and building techniques associated with heavy timber construction and panelized roof systems. The advantages and types of manufactured wood used, and their load carrying strength, span, and spacing will be discussed. A distinction between standard post and beam, and heavy timber construction will be emphasized. Students will interpret floor plan, section views and drawing elevations for job planning, and to layout and construct a heavy timber post and beam supported panelized roof.

AP C 268 Fitting Rooms/Partitions (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Compare styles, attachment methods and installation techniques for various fitting room and partition fixtures. Framing elements, mounting brackets, and panel products will be covered in both discussions and lab activities. Proper layout, leveling and securing methods will be included and applied in selected fitting room and partition applications.

AP C 269 Exit and Electrical Security Devices (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Highlight the classification and various types, models and uses for accident hazard exit ("panic") devices. A range of security products and miscellaneous types of door hardware used in the industry such as crossbars, latches, flush bolts, and kick plates will be discussed. Proper selection, installation and adjustment techniques for four types of devices will be covered. Students will complete installation and adjustment of two types of exit devices.

Drywall/Lather (AP DL)

A three-year apprenticeship program. Applicants for this program should be directed to the Carpenters Joint Apprenticeship and Training Committee for Southern California, San Diego Carpenters Training Center, 8595 Miralani Drive, San Diego, CA 92126. Telephone (858) 621-2667.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AP DL/AP PL/ AP AC 201	Orientation	1.5
AP DL/AP PL/ AP AC 202	Safety and Health Certifications	1.5
AP DL/AP PL/ AP AC 203	Printreading	1.5
AP DL/ AP PL 205	Basic Lathing	1.5
AP DL 206	Framing Ceilings and Soffits	1.5
AP DL 207	Basic Metal Framing	1.5
AP DL 208	Framing Suspended Ceilings	1.5
AP DL 209	Framing Curves and Arches	1.5
AP DL 210	Light Gage Welding - AWS - A	1.5
AP WE 112	Drywall/Acoustical Work Experience	16
Electives (Select 3 courses)		
AP DL/AP PL/ AP AC 204	Advanced Printreading	1.5
AP DL 211	Light Gage - L.A. City Certificate	1.5
AP DL 212	Basic Hand Finishing	1.5
AP DL 213	Drywall Acoustical Ceilings	1.5
AP DL 214	Door/Door Frames	1.5
AP DL/ AP PL 215	Exterior Insulation Finish Systems (EIFS)	1.5
AP DL/ AP PL 216	Firestopping Procedures	1.5
AP DL 217	Free-Form Lathing	1.5
AP DL 218	Machine Taping	1.5
AP DL 219	Hand Taping	1.5
AP DL 220	Gypsum Board Application and Finish Trim	1.5

AP DL 221	Advanced Hand Tool Finishing	1.5
AP DL 222	Advanced Machine Tool Finishing	1.5
AP DL 223	Advanced Lathing	1.5
AP DL 224	Ceiling and Soffit Finishing	1.5
AP DL 225	Wet Wall Finishes	1.5
AP DL 226	Reinforced Substrate Installations	1.5
AP DL 227	Decorative Trims and Textures	1.5
AP DL 228	Drywall Applications	1.5
TOTAL UNITS		**34**

COURSE OFFERINGS

AP DL 197 Drywall/Lather Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California*
Note: *May be taken 4 times*
Topics in Drywall/Lather. See Class Schedule for specific topic offered. Course title will designate subject covered.

AP DL 201 Orientation (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Cross listed as AP PL 201/ AP AC 201; may be taken two times*
Introduction to the Interior Systems program. Content includes safe and proper usage of hand tools, power/powder tools, an introduction to trade related math, beginning blueprint reading and layout. Certifications will include Ramset/Red Head or Hilti low velocity power/powder actuated tools and scaffold erector/ dismantler (welded frame).

AP DL 202 Safety and Health Certifications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 202/ AP AC 202; may be taken two times*
Designed to incorporate learning theories, methods and techniques that meet the needs of the Interior Systems industry. Content includes certification in forklift, aerial lift, American Red Cross, First Aid/CPR and OSHA 10.

AP DL 203 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 203/ AP AC 203; may be taken two times*
This course is designed to teach the basics of reading, understanding and visualizing the blueprints. Terms, symbols and definitions from several trades will be incorporated. Prints showing both residential and commercial application will be used. Related safety, math and blueprint reading will be covered.

AP DL 204 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP DL/AP AC 203*
Note: *Cross listed as AP PL 204/ AP AC 204; may be taken two times*
This course will give the student more in depth training related to on the job conditions. Basic estimating, material take offs and organizing jobs will be included.

AP DL 205 Basic Lathing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 205; may be taken 2 times*
Covers standard lath and trim products used in the commercial industry. Methods and techniques presented will provide the basic skills needed to perform metal framing tasks, and substrate and lath installation. Procedures to select, measure, cut and attach various trim beads to fit corners and wall openings will be utilized in lab assignments. Proper leveling and finishing methods will be included and applied in course projects.

AP DL 206 Framing Ceilings and Soffits (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to provide instruction in the basics of framing ceilings and soffits with drywall and lath application. Related safety, math and blueprint reading will be covered.

AP DL 207 Basic Metal Framing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
An in-depth study of basic material identification, print layout, framing, drywall applications and proper trim applications for the Drywall/Lath industry. Safety, math and blueprint reading will be covered.

AP DL 208 Framing Suspended Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to provide related classroom instruction with the technical skills and knowledge to successfully frame any suspended ceiling in drywall and lath. Related hand and power tool safety, math and blueprint reading will be covered.

AP DL 209 Framing Curves and Arches (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to teach curves and arches, barrel ceilings, radius walls and soffits. Related hand and power tool safety, math and blueprint reading will be covered.

AP DL 210 Light Gage Welding - AWS - A (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Designed to teach the practical skills needed for the arc welding processes and applications. Students will have the practical skills to successfully pass the AWS light gage certification. Related safety, codes and materials will be covered.

AP DL 211 Light Gage - L.A. City Certificate (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Assists students in preparing for the Los Angeles City Light Gage Welding Certification. Written and practical skills of the test will be demonstrated and discussed in order to associate the student with the working knowledge necessary to successfully achieve a Los Angeles City Light Gage Welding Certification. Related safety, codes and materials will be covered.

AP DL 212 Basic Hand Finishing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Develop basic hand finishing skills using the correct tools and materials. Includes a description of finishing levels, hand tool manipulation, material identification, selection, and mixture preparation. Key processes and application techniques will be presented. Students will review plans and specifications, calculate and select materials, and complete a wall project to a level four finish.

AP DL 213 Drywall Acoustical Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Identifies the materials and methods used for the installation of acoustical ceilings. Seismic codes, materials, and requirements are also reviewed. Installation for various grid systems will be discussed. Students will use the skills presented to complete an acoustical ceiling project as part of this course.

AP DL 214 Door/Door Frames (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduction to the basic installation of door frames and various types of doors. Lock sets, closures, hinges, panic hardware, and door sweeps will be discussed and demonstrated.

AP DL 215 Exterior Insulation Finish Systems (EIFS) (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 215; may be taken 2 times*
Introduction to the basic working knowledge and technical skills needed to successfully install Exterior Insulation and Finish Systems EIFS (foam products) to

meet industry specifications and standards. Introduction to the proper usage of products and materials will be discussed and used.

AP DL 216 Firestopping Procedures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 216; may be taken 2 times*
Emphasis on the correct methods, technical skills and firestop materials required to complete a Firestop System. Firestopping is a complete fire containment system designed to prevent the passage of fire, smoke and hot gasses from one side of a rated wall/ceiling assembly to another.

AP DL 217 Free-Form Lathing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Introduction to the techniques and skills needed for construction of freeform lath projects. Layout techniques using grids and projection overlay will be presented. Methods for bending and shaping of rebar and pencil rod, lath handling and tying along with welding and cutting techniques will be demonstrated and applied.

AP DL 218 Machine Taping (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Advanced instruction in blueprints and finish schedules and machine parts identification as well as proper use, assembly and breakdown of tools.

AP DL 219 Hand Taping (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in blueprints, specifications and finish schedules, taping techniques, trade terminology and sequences of operations for hand taping.

AP DL 220 Gypsum Board Application and Finish Trim (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Instruction in the basics of gypsum board application and finish trims.

AP DL 221 Advanced Hand Tool Finishing (1.5)
1 hour lecture -1½ hours laboratory
Note: *May be taken 2 times*
This course will give more in depth instruction in hand tool use. The different operations, phases and materials to be used in order to have information of what a finished product should look like.

AP DL 222 Advanced Machine Tool Finishing (1.5)
1 hour lecture -1½ hours laboratory
Note: *May be taken 2 times*
Instruction in the proper methods and sequences of the "bazooka," flat boxes, nail spotters and angle boxes.

AP DL 223 Advanced Lathing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course will distinguish advance lathing methods and styles from basic application techniques for lath and trim products used on exterior-interior metal framing. Metal framing elements, various bead styles, lathing types and substrates will be covered in both discussions and lab activities. Proper leveling and finishing methods will be demonstrated. Students will apply lath and trim using the techniques presented to complete course projects.

AP DL 224 Ceiling and Soffit Finishing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Designed to provide an advanced level of finishing skill for applications with architecturally detailed ceilings and soffits. Guided practice with a combination of hand and automatic tool techniques will promote the level of manipulative ability required for a successful result. A variety of finish trims will be integrated into each method of finish. Training will conclude with inspection criteria for evaluating finish levels.

AP DL 225 Wet Wall Finishes (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Presents the industry use, application methods, and product mediums typically used for wet wall finishes. The techniques and procedures used to achieve a level five finish to industry standards requires base and top coating of interior surfaces for inspection purposes. Selection and use of painting equipment and coatings will be included in the training.

AP DL 226 Reinforced Substrate Installations (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Presents the applications techniques and product considerations typical of reinforced substrate installations. The training will focus on Glass Fiber Reinforced Gypsum and Glass Fiber Reinforced Concrete (GFRG) & (GFRC) products. The lab project will include layout, cutting and handling practices, attachment methods, alignment and various related installation methods.

AP DL 227 Decorative Trims and Textures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Provides advanced hand and automatic tool finishing techniques used in the application of decorative trims and special surface textures. Training includes product information for metal, paper, plastics and art beads. Special attention will be given to coating and sanding sequence of field and butt joints for selected surface textures.

AP DL 228 Drywall Applications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Focuses on the needed skills to properly handle and install drywall used in specialized applications including fire resistance, sound control, and life safety. Layout, cutting, attachment procedures and productivity techniques will be discussed and practiced under jobsite conditions. Drywall finishing methods will be incorporated into the hands-on activity.

Electrician (AP E)

A five-year apprenticeship program. Applications for Riverside/San Bernardino/Mono/Inyo counties should apply to the Riverside and San Bernardino Joint Electrical Apprenticeship Training. Committees, 1855 Business Center Drive, San Bernardino, CA 92408. Telephone: (909) 890-1703.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP E 101	Electrical Trade/Industry/DC/Conduit	4
AP E 102	Electrical Theory/Practice/Blueprint Reading	4
AP E 103	Inductance/Capacitance Theory	4
AP E 104	Transformers/Code Calculations/Conduit	4
AP E 105	Electronic/Industrial Blueprints	4
AP E 106	Grounding/Electrical Services/Connection	4
AP E 107	Motor Control/Pilot Devices/Starters	4
AP E 108	Digital Electronics	4
AP E 109	Mgmt/Alarms/Testing/Wiring	4
AP E 110	Programmable Logic Controllers	4
AP WE 113	Electrician Work Experience	16
TOTAL UNITS		**56**

COURSE OFFERINGS

AP E 101 Introduction to the Electrical Trade and Industry, DC Theory and Conduit Bending (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *Completion of the following: (1) One semester of Algebra 1 with a grade of 'C' or better; (2) Designated tests with a passing grade determined by the appropriate committee; (3) Indentured apprentice to the San Diego Electrical Joint Apprenticeship and Training Committee or the Riverside and San Bernardino Joint*

Electrical Apprenticeship Training Committee.
Note: *May be taken 2 times*
Orientation to the electrical industry; introduction to the electrical code fundamentals of wiring methods, fastening devices, electrical conductors, circuits, and voltage.

AP E 102 Electrical Theory, Practice and Blueprint Reading (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 101*
Note: *May be taken 2 times*
Study of floor and plot plan; basic blueprint reading and circuit drawing; theory of magnetism; DC and AC generators; motors and transformers; on-the-job safety and first aid, and the electrical code.

AP E 103 Inductance and Capacitance Theory and Codeology (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 102*
Note: *May be taken 2 times*
Review of the International Brotherhood of Electrical Workers constitution and local union by-laws. Study of the effects of inductance and capacitance on current and voltage. Application of phase angle calculation and the National Electric Code. Overview of workplace problems due to drug abuse.

AP E 104 Transformers and Code Calculations, Conduit Bending and Blueprints (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 103*
Note: *May be taken 2 times*
Study of transformers theory, installation, connection and distribution systems. Performing short circuit calculations, selecting of building wire for specific applications, calculating loads for residential and multifamily loads and service feeders. Applying conduit bending principles using mechanical benders to fabricate segmented concentric bends.

AP E 105 Introduction to Electronics and Industrial Blueprints (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 104*
Note: *May be taken 2 times*
Introduction to basic electronics including examination of semiconductor devices, current and voltage manipulation, applications, and blueprint reading.

AP E 106 Grounding, Electrical Services, and Transform Three-Phase Connections (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 105*
Note: *May be taken 2 times*
Study of requirements for electrical services installation. Study of electrical grounding including merits, impact on safety, ground fault protection, and identification of grounding system elements and functions.

AP E 107 Electrical Motor Control, Pilot Devices, Starters and Relays (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 106*
Note: *May be taken 2 times*
Study of controls and circuits, pilot devices, starters, and relays. Includes the analysis and development of circuits, the installation and service of electrical equipment, and the electrical code.

AP E 108 Digital Electronics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 107*
Note: *May be taken 2 times*
Introduction to digital electronic technology and electronic equipment. Instruction includes basic digital systems, binary and decimal numbering systems, decision-making logic circuits, Boolean Algebra, flip-flops, counters, shift registers, encoders, decoders, ROMs, DC to AC converters and organization of these component blocks to accomplish manipulation of data.

AP E 109 Management, Fire Alarms, High Voltage Testing, and Telephone and Security Wiring (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 108*
Note: *May be taken 2 times*
Introduction to management and marketing practices, installation of fire alarm systems and the National Electric Code as it relates to alarm installation and high voltage of telephone wiring and security systems.

AP E 110 Programmable Logic Controllers (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 109*
Note: *May be taken 2 times*
Introduction to basic input/output hardware, processors and memory numbering systems associated with programmable controllers. Instruction includes use of personal computer to create and modify ladder diagrams and relay instructions, using solid state logic elements, counters, and shift registers. Principles of process control are explained and principle components are identified.

AP E 197 Electrical Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *Indentured apprentice to the San Diego Electrical Joint Apprenticeship and Training Committee or the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committee*
Note: *May be taken 4 times*
Concentrated courses on electricity. Course title will designate subject covered.

Inside Wireman (AP IW)

A five-year apprenticeship program. Study of technical course development and delivery techniques for the electrical trade, utilizing classroom-proven techniques. The student will familiarize him/herself with classroom management, testing and assessment techniques, curriculum development and material presentation based on industry-standard and college level instructional methodologies. Applications for this program should be directed to the San Diego Electrical Training Trust, 4675 Viewridge Avenue, Suite D, San Diego, CA 92123. Telephone (858) 569-6633, ext. 111.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AP IW 101	Introduction to the Electrical Trade	4
AP IW 102	Electrical Theory, Practice and Blueprint Reading	4
AP IW 103	Inductance and Capacitance Theory	4
AP IW 104	Transformer, Motors, and Motor Controls	4
AP IW 105	Special Electrical Systems	4
AP IW 106	Specialized Electrical Applications	4
AP WE 113	Electrician Work Experience	16
Electives (Select 16 units)		
AP IW 107	Advanced Electronics I	4
AP IW 108	Advanced Electronics II	4
AP IW 109	Advanced Motor Controls	2
AP IW 110	AutoCAD	4
AP IW 111	Electric Motor Drives	4
AP IW 112	Introduction to Computers	4
AP IW 113	Electrical Project Supervisor	4
AP IW 114	Electrical Certification Preparation	4
AP IW 115	Low Voltage	4
AP IW 116	Photovoltaics	4
AP IW 117	Service Equipment	2
AP IW 118	Test Equipment	2
AP IW 119	Welding	2
AP IW 120	Instructional Leadership I	4
AP IW 121	Programmable Logic Controllers	4
AP IW 122	Fire/Life Safety Systems	4
AP IW 123	Instrumentation	4

AP IW 124	Instructional Leadership II	4
AP IW 125	Building Automation Systems	4
AP IW 126	Electrical Construction Practices	4
AP IW 197	Inside Wireman Topics	2 - 4
TOTAL UNITS		**56**

COURSE OFFERINGS

AP IW 101 Introduction to the Electrical Trade (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *One semester of Algebra I with a grade of 'C' or better, designated tests with a passing grade determined by the appropriate committee, and indentured apprentice to the San Diego Electrical Joint Apprenticeship and Training Committee or the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committee.*
Note: *May be taken 2 times*
Introduction to the electrical industry, with emphasis on jobsite safety, basic conduit bending, National Electric Code (NEC), sexual harassment, introduction to blueprints, tools and their use. Particular attention will be given to fastening devices, basic mathematics, resistance, voltage, power in DC series, parallel, and combination circuits.

AP IW 102 Electrical Theory, Practice and Blueprint Reading (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 101*
Note: *May be taken 2 times*
Survey of drug awareness, Union Constitution and Bylaws, parliamentary procedure, test instruments, 3Ø electrical systems, DC and AC power generation, specialized conduit bending techniques, National Electric Code (NEC), solid state devices, blueprint analysis, AC theory, transformers, vector analysis, impedance, voltage, power in AC series, parallel, and combination circuits.

AP IW 103 Inductance and Capacitance Theory (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 102*
Note: *May be taken 2 times*
Study of circuit analysis techniques, power factor, semiconductors, AC system grounding and bonding, ground fault protection systems, overcurrent protective devices (fuse and circuit breakers), test instruments, National Electric Code (NEC), and industrial blueprint analysis.

AP IW 104 Transformer, Motors, and Motor Controls (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 103*
Note: *May be taken 2 times*
Study of real-world application of transformer, motor and motor control concepts utilizing extensive hands-on labs and demonstrations. Students work in foremen-led teams to design, build, and test motor control circuits. Students will gain familiarity with a wide array of test instruments including DMMs, voltage testers, megohmmeters, clamp-on ammeters, capacitance testers and other equipment.

AP IW 105 Special Electrical Systems (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 104*
Note: *May be taken 2 times*
Introduction to telephony and data networks, fire alarm systems, nurse call systems, Programmable Logic Controllers (PLCs), arc-flash protection, and instrumentation concepts, National Electric Code (NEC), and OSHA rules and regulations.

AP IW 106 Specialized Electrical Applications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 105*
Note: *May be taken 2 times*
Introduction to electrical power quality, CATV and CCTV Systems, security systems, fiber optics, hazardous locations, lighting protection, advanced conduit bending, HVAC principles and controls, blueprints, and leadership skills.

AP IW 107 Advanced Electronics I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Comprehensive study of DC circuits, AC circuits and semiconductor power electronic devices and circuits for future applications. Emphasis is placed on schematic interpretation and testing with troubleshooting techniques for electrical and electronic circuits and systems. Integrating theory and lab, this class employs project-based learning techniques and team-based labs to emphasize practical application, teamwork, and communication skills.

AP IW 108 Advanced Electronics II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Study of the essential concepts of digital electronics by constructing and programming a micro-computer, computer interface, and programmable-robot. A strong emphasis is placed on schematic interpretation and testing and troubleshooting techniques for electrical and electronic circuits and systems.

AP IW 109 Advanced Motor Controls (2)
1½ hours lecture-1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Study of advanced techniques for control system installations of motors and related equipment, utilizing field-proven techniques for installation, start-up, control system documentation, and trouble-shooting. Students will become familiar with industry-standard control configurations that are used in a variety of installation scenarios. Specialized control devices will be examined.

AP IW 110 AutoCAD (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in P IW 106 and AP IW 112*
Note: *May be taken 2 times*
Application of a step-by-step approach to the commands of AutoCAD LT. Topics include application fundamentals, drawing setup, file operations, commands, object properties, dimensioning, menus, drawing management, and AutoCAD LT applications in the electrical trade.

AP IW 111 Electric Motor Drives (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106 and AP IW 109*
Note: *May be taken 2 times*
Comprehensive study of the technology behind and installation requirements for electric motor drives. Topics include motor load analysis, electric motor drive operation fundamentals, drive startup procedures, and drive testing and troubleshooting.

AP IW 112 Introduction to Computers (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Instruction in basic computer skills. Topics include basic personal computer design and construction, computer operating systems, and select applications. Internet applications, basic keyboarding, computer peripherals, file structures, and data management techniques will be examined.

AP IW 113 Electrical Project Supervisor (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
An overview of all processes required to run a successful job. The class utilizes field trips and speakers to give the student a 360° view of the workplace. Each speaker will bring expertise from the field into the classroom where students will learn the right and the wrong way to organize and run a jobsite.

AP IW 114 Electrical Certification Preparation (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*

Note: *May be taken 2 times*
Designed to prepare the student to take the California Electrician Certification Examination (CECE). Provides a review of concepts and principles, but focuses primarily on understanding and applying the national Electric Code (NEC), the set of standards upon which the CECE is based.

AP IW 115 Low Voltage (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Study of technologies and installation requirements for low voltage systems. Subjects presented in this course are Low Voltage Design and Specification Techniques, Fiber Optics, LAN Cabling Systems, IEEE Grounding Requirements for Electronic Equipment, Power Quality to Support Low Voltage Systemss, Telephone Systems, Nurse Call, and CCTV.

AP IW 116 Photovoltaics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Technologies and installation requirements for photovoltaic systems. Subjects presented in this course are renewable energy construction, renewable energy resources, renewable energy efficiency, and energy savings devices used in construction.

AP IW 117 Service Equipment (2)
1½ hours lecture-1½ hours laboratory
Prerequisite: A minimum grade of 'C' in AP IW 106
Note: May be taken 2 times
Presentation of the technologies and skill sets required for installing and provisioning an electrical service for commercial or industrial facilities. Topics presented in this course include electrical distribution overview, safety, OSHA requirements, shoring, trenching, Sempra Service Guide requirements, rigging, IEEE Standards, and National Electrical requirements (Article 230) for an electrical service.

AP IW 118 Test Equipment (2)
1½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
The technologies and skill sets required for testing and troubleshooting electrical distribution systems and associated hardware including electric motors and drives. The topics presented in this course include testing procedures, test equipment, testing documentation, lighting and branch circuit analysis and troubleshooting.

AP IW 119 Welding (2)
1½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Basic understanding of cutting torch and electrical resistance welding principles and techniques. Covers safe storage, transportation, and use of acetylene, oxygen, and chemelene (MAPP) gases for cutting, as well as "stick" and wire-feed welding safety and technique. Upon completion of the course students will be able to weld in vertical, overhead and horizontal positions.

AP IW 120 Instructional Leadership I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Study of technical course development and delivery techniques for the electrical trade, utilizing classroom-proven techniques. The student will familiarize him/herself with classroom management, testing and assessment techniques, curriculum development and material presentation based on industry-standard and college level instructional methodologies.

AP IW 121 Programmable Logic Controllers (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106, AP IW 109 and AP IW 112*
Note: *May be taken 2 times*
Provides an in-depth study of programmable logic controllers (PLC) while examining standard programming languages and common PLC hardware applications. This course focuses on the underlying principles of PLCs and provides practical information on installing, programming, maintaining, and troubleshooting PLCs.

AP IW 122 Fire/Life Safety Systems (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Introduces students to the code requirements, design concepts, and installation techniques required for an efficiently installed and properly working fire alarm system. Includes an overview of NFPA 70 (NEC) – 2002 edition as it applies to Fire Alarm, an introduction to NFPA 72 – 1999 edition National Fire Alarm Code with overview of Chapters 1 through 9, including Appendix A.

AP IW 123 Instrumentation (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Provides students with a more advanced understanding of instrumentation and control, covering temperature, pressure, flow, and level detection (process control) systems; their principles of operation, and strategies for installation, maintenance, and troubleshooting of these systems.

AP IW 124 Instructional Leadership II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Study of technical course development and delivery techniques for the electrical trade, utilizing classroom-proven techniques. The student will familiarize him/herself with classroom management, testing and assessment techniques, curriculum development and material presentation based on industry-standard and college level instructional methodologies.

AP IW 125 Building Automation Systems (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
Covers the technologies and installation requirements for Building Automation Systems (BAS.) The subjects presented in this course are Building Automation applications and requirements used in the construction of commercial and industrial buildings.

AP IW 126 Electrical Construction Practices (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 106*
Note: *May be taken 2 times*
The technologies and skill sets required for installing and provisioning the electrical requirements for commercial or industrial facilities. The topics presented in this course include electrical distribution overview, safety, OSHA requirements, shoring, trenching, Sempra Service Guide requirements, rigging, IEEE Standards, Blueprints, CSI Master Format construction specifications and National Electrical requirements for electrical services and distribution systems.

AP IW 197 Inside Wireman Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Inside Wireman. See Class Schedule for the specific topic offered. Course title will designate subject covered.

Plasterer (AP PL)

A four-year apprenticeship program. Applicants for this program should be directed to the Carpenters Joint Apprenticeship and Training Committee for Southern California, San Diego Carpenters Training Center, 8595 Miralani Drive, San Diego, CA 92126. Telephone (858) 621-2667.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP DL/AP PL/ AP AC 201	Orientation	1.5
AP DL/AP PL/ AP AC 202	Safety and Health Certifications	1.5
AP DL/AP PL/ AP AC 203	Printreading	1.5
AP DL/AP PL/ AP AC 204	Advanced Printreading	1.5
AP DL/ AP PL 205	Basic Lathing	1.5
AP PL 206	Basic Plastering	1.5
AP PL 207	Exterior Plastering	1.5
AP PL 208	DOT and Screed Techniques	1.5
AP PL 209	Interior Plastering	1.5
AP PL 210	Finish Applications	1.5
AP PL 211	Ornamental Plastering	1.5
AP PL 212	Plastering Replications	1.5
AP PL 213	Theme Plastering	1.5
AP PL 214	Architectural Wall Finishing	1.5
AP DL/ AP PL 215	Exterior Insulation Finish Systems (EIFS)	1.5
AP DL/ AP PL 216	Firestopping Procedures	1.5
AP WE 114	Plasterer Work Experience	16
TOTAL UNITS		**40**

COURSE OFFERINGS

AP PL 197 Plasterer Topics (.5–4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California*
Note: *May be taken 4 times*
Topics in Plasterer. See Class Schedule for specific topic offered. Course title will designate subject covered.

AP PL 201 Orientation (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Cross listed as AP DL 201/ AP AC 201; may be taken 2 times*
Introduction to the Interior Systems program. Content includes safe and proper usage of hand tools, power/powder tools, an introduction to trade related math, beginning blueprint reading and layout. Certifications will include Ramset/Red Head or Hilti low velocity power/powder actuated tools and scaffold erector/ dismantler (welded frame).

AP PL 202 Safety and Health Certifications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 202/ AP AC 202; may be taken 2 times*
Designed to incorporate learning theories, methods and techniques that meet the needs of the Interior Systems industry. Content includes certification in forklift, aerial lift, American Red Cross, First Aid/CPR and OSHA 10.

AP PL 203 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 203/ AP AC 203; may be taken 2 times*
This course is designed to teach the basics of reading, understanding and visualizing the blueprints. Terms, symbols and definitions from several trades will be incorporated. Prints showing both residential and commercial application will be used. Related safety, math and blueprint reading will be covered.

AP PL 204 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP PL/AP AC 203*
Note: *Cross listed as AP DL 204/ AP AC 204; may be taken 2 times*
This course will give the student more in depth training related to on the job conditions. Basic estimating, material take offs and organizing jobs will be included.

AP PL 205 Basic Lathing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 205; may be taken 2 times*
Covers standard lath and trim products used in the commercial industry. Methods and techniques presented will provide the basic skills needed to perform metal framing tasks, and substrate and lath installation. Procedures to select, measure, cut and attach various trim beads to fit corners and wall openings will be utilized in lab assignments. Proper leveling and finishing methods will be included and applied in course projects.

AP PL 206 Basic Plastering (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course provides a brief history of plastering and a complete picture of what the plastering industry is like today. The importance of good lathing and proper inspection of lathing will be emphasized. Proper hawk and trowel and basic tool use will be demonstrated.

AP PL 207 Exterior Plastering (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
An introduction to Portland Cement Plaster (a.k.a. stucco) and the processes involved in completing a plastering job. This course will stress the importance of good workmanship and adherence to proven methods of work. Students will begin to develop mastery of basic plastering tools in this course.

AP PL 208 DOT and Screed Techniques (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to teach the importance of plumb and square projects. The students will use 3-4-5 or center line methods to square the project, establish control lines and wall finish lines. The plumbing of the project will be demonstrated through the dotting and screeding portion of instruction. The student will brown up and finish a project using methods of application previously covered.

AP PL 209 Interior Plastering (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
An introduction to modern gypsum interior plastering systems. Proper methods of application, proper proportioning and mixing, and good workmanship will be demonstrated in this course.

AP PL 210 Finish Applications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
The course will emphasize three different types of molds, their use and application. Components and production of a mold, how to horse a mold and create inside and outside miters will also be covered.

AP PL 211 Ornamental Plastering (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP PL 210*
Note: *May be taken 2 times*
This course is designed to provide instruction and practice in advanced geometric lay out problems. Class project will guide students through each phase of production to produce an elliptical arch, with keystone at the arch apex. The project will introduce students to benching a mold, setting and pointing staff, building a working trammel and successfully running a trammel mold.

AP PL 212 Plastering Replications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is an introduction to three types of brick used in plastering. Atten-

tion given to the techniques used to achieve a finished job that looks like the real material it is replacing. Students will also learn masonry terms and study architectural details related to masonry.

AP PL 213 Theme Plastering (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to teach the student the basic knowledge and skills required to successfully plan and execute a simple project that requires the use of manufactured rock. A study of real rock formations and the techniques used to copy them will be covered as well as painting and highlighting, required tools, art lay out, and carving techniques.

AP PL 214 Architectural Wall Finishing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
This course is designed to introduce the sophisticated design elements of architectural wall finishing. Walls as an art form with transitioning color and texture are becoming increasingly popular and are in high demand.

AP PL 215 Exterior Insulation Finish Systems (EIFS) (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 215; may be taken 2 times*
Introduction to the basic working knowledge and technical skills needed to successfully install Exterior Insulation and Finish Systems EIFS (foam products) to meet industry specifications and standards. Introduction to the proper usage of products and materials will be discussed and used.

AP PL 216 Firestopping Procedures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 216; may be taken 2 times*
Emphasis on the correct methods, technical skills and firestop materials required to complete a Firestop System. Firestopping is a complete fire containment system designed to prevent the passage of fire, smoke and hot gasses from one side of a rated wall/ceiling assembly to another.

Residential Wireman (AP RW)

A three-year apprenticeship program. Applicants for San Diego/Imperial counties should apply to the San Diego Electrical Training Trust, 4675 Viewridge Avenue, Suite D, San Diego, CA 92123. Telephone: (858) 569-6633, ext. 111.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP RW 101	Introduction to Residential Wiring Concepts	4
AP RW 102	Electrical Theory, Practice & Blueprint Reading	4
AP RW 103	AC/DC Electrical Theory and Applications	4
AP RW 104	Residential Certification Preparation	4
AP RW 105	Home Technology Integrator I	4
AP RW 106	Home Technology Integrator II	4
AP WE 113	Electrician Work Experience	16
TOTAL UNITS		**40**

COURSE OFFERINGS

AP RW 101 Introduction to Residential Wiring Concepts (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *May be taken 2 times*
Introduction to the electrical industry, with emphasis on jobsite safety, basic residential wiring, National Electric Code (NEC), sexual harassment, introduction to blueprints, tools and their use.

AP RW 102 Electrical Theory, Practice & Blueprint Reading (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP RW 101*
Note: *May be taken 2 times*
Survey of drug awareness, Union Constitution and Bylaws, parliamentary procedure, test instruments, National Electric Code (NEC), blueprint analysis, specialty residential wiring systems including telephone, LAN, security, fire alarm and CATV systems.

AP RW 103 AC/DC Electrical Theory and Applications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP RW 102*
Note: *May be taken 2 times*
Introduction to the electrical industry, with emphasis on jobsite safety, AC and DC theory, National Electric Code (NEC), electric motors, transforms, relays, motor controls, tools and their use. Particular attention will be given to residential lighting, wiring devices, appliance cords/connections, and residential branch circuit wiring.

AP RW 104 Residential Certification Preparation (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP RW 103*
Note: *May be taken 2 times*
This course is designed to prepare the student to take the California Electrician Certification Examination (CECE). The class provides a review of concepts and principles, but focuses primarily on understanding and applying the National Electric Code (NEC), the set of standards upon which the CECE is based.

AP RW 105 Home Technology Integrator I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP RW 104*
Note: *May be taken 2 times*
Provides the student with the background necessary to install, troubleshoot, and maintain computer networks, video theater systems, voice networks, CATV networks, and other specialized audio/video systems designed for the home environment.

AP RW 106 Home Technology Integrator II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP RW 105*
Note: *May be taken 2 times*
Provides the essential networking concepts to permit design and engineering of a residential network and its components. Provides information on home network installations that includes lighting control systems; telecommunication devices; security, access control, home automation controllers; heating, ventilation, and air conditioning control systems; and integration of each. Upon completion of this course students will be prepared to take two CompTIA HTI+ certification exams: Residential Systems and Systems Infrastructure and Integration.

AP RW 197 Residential Wireman Topics (.5–4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Residential Wireman. See Class Schedule for the specific topic offered. Course title will designate subject covered.

Sheet Metal (AP SM)

A five-year apprenticeship program. Applicants for this program should be directed to the San Diego Sheet Metal Joint Apprenticeship and Training Committee, 4596 Mission Gorge Place, San Diego, CA 92120. Telephone (619) 265-2758.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP SM 101	Core I	4
AP SM 102	Core II	4
AP SM 103	Core III	4
AP SM 104	Core IV	4
AP SM 105	Sheet Metal Welding	3
AP SM 106	Plans & Specifications	4

AP SM 107	Construction Plan Problem Solving	4
AP SM 108	Introduction to Basic Refrigeration	4
AP SM 109	Foreman and Project Management Training	4
AP SM 110	Architectural Problem Solving	4
AP WE 110	Sheet Metal Work Experience	16
TOTAL UNITS		**55**

COURSE OFFERINGS

AP SM 101 Core I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *Indentured apprentice to the San Diego Sheet Metal Joint Apprenticeship and Training Committee*
Note: *May be taken 2 times*
An introduction to the basic principles, processes, drawings, materials and practices used in the sheet metal industry.

AP SM 102 Core II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 101*
Note: *May be taken 2 times*
A continuation of basic sheet metal processes as well as an introduction to simple sheet metal forming processes.

AP SM 103 Core III (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 102*
Note: *May be taken 2 times*
An introduction to intermediate sheet metal processes demonstrating job layout, architectural details and construction techniques with problems of unusual complexity and difficulty.

AP SM 104 Core IV (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 103*
Note: *May be taken 2 times*
A continuation of intermediate processes with problems of unusual difficulty and complexity.

AP SM 105 Sheet Metal Welding (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 104*
Note: *May be taken 2 times*
An introduction to the basic principles and methods of gas and arc welding used in the sheet metal industry. Includes codes, standards, welding theory and the practical application using prescribed welding procedures and equipment.

AP SM 106 Plans and Specifications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 105*
Note: *May be taken 2 times*
An introduction to the language and organization of plans and specifications for sheet metal projects. Topics will include architectural, structural, mechanical and electrical drawings as well as how to write and implement a change order to plans and specifications.

AP SM 107 Construction Plan Problem Solving (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 106*
Note: *May be taken 2 times*
Learn to apply detailing and research skills to create changes to plans and specifications using intermediate process problems of unusual complexity and difficulty.

AP SM 108 Introduction to Basic Refrigeration (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 107*
Note: *May be taken 2 times*
An introduction to the physical components and systems of a basic HVAC system as well as hands-on techniques for startup and basic system troubleshooting.

AP SM 109 Foreman and Project Management Training (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 108*
Note: *May be taken 2 times*
Overview of the knowledge, skills and abilities required to effectively perform as a foreman and project manager in the sheet metal industry.

AP SM 110 Architectural Problem Solving (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 109*
Note: *May be taken 2 times*
Overview of the knowledge, skills, and abilities of advanced architectural project performance.

AP SM 197 Sheet Metal Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *Indentured apprentice to the San Diego Sheet Metal Joint Apprenticeship and Training Committee*
Note: *May be taken 4 times*
Topics in Sheet Metal. See Class Schedule for specific topic offered. Course title will designate subject covered.

Sound and Communication Systems Installer (AP SC)

A three-year apprenticeship program. Applicants for this program should be directed to the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committees, 1855 Business Center Drive, San Bernardino, CA 92408. Telephone: (909) 890-1703.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AP SC 101	Intro to Sound/Communication Trade Industry	4
AP SC 102	Electrical Theory and Practices DC	4
AP SC 103	Electrical Theory and Practices AC	4
AP SC 104	Semiconductor Electronics	4
AP SC 105	Intro to Digital Electronics and Signaling Devices	4
AP SC 106	Management/Alarms/Codes/Circuits	4
AP WE 113	Electrician Work Experience	16
TOTAL UNITS		**40**

Sound Technician (AP SC)

A four-year apprenticeship program. Students will work in the field during the day and attend class in the evenings. Each apprentice is paid for field work with regularly scheduled pay increases based on required work hours and completion of classroom instruction. Upon completion of this program, students will receive a certificate of completion from the California Division of Apprenticeship Standards and Journeyman Sound Technician status in the I.B.E.W. All students must be indentured Sound Technical apprentices to be eligible for the course. Interested applicants from San Diego/Imperial counties should apply to the San Diego Electrical Training Trust, 4675 Viewridge Avenue, Suite D, San Diego, CA 92123. Telephone: (858) 569-6322, extension 111.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AP SC 101	Intro to the Sound/Communication Trade Industry	4
AP SC 102	Electrical Theory and Practices DC	4
AP SC 103	Electrical Theory and Practices AC	4
AP SC 104	Semiconductor Electronics	4
AP SC 105	Introduction to Digital Electronics	4
AP SC 106	Management/Alarms/Codes/Circuits	4
AP SC 107	Life Safety and Security System Applications	4

AP SC 108	Specialized Systems and Supervision Techniques	4
AP WE 113	Electrician Work Experience	16
TOTAL UNITS		**48**

COURSE OFFERINGS

AP SC 101 Introduction to the Sound and Communication Trade Industry (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 50. Completion of designated tests with a passing grade determined by the appropriate committee. Indentured Apprentice to the Riverside, San Bernardino, Mono, and Inyo Counties Sound and Communications Joint Apprenticeship Committee or the San Diego Sound & Communications Joint Apprenticeship Committee.*
Note: *May be taken 2 times*
Introduction to the sound and communication industry, electrical code, fundamentals of wiring methods, fastening devices, electrical conductors, circuits, voltage and data communication.

AP SC 102 Electrical Theory and Practices DC (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 101*
Note: *May be taken 2 times*
Study of floor and plot plans, basic blueprint reading and circuit drawing, theory of magnetism, DC and AC generators, motors and transformers, on-the-job safety, first aid, electrical code, telephony and data communications.

AP SC 103 Electrical Theory and Practices AC (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 102*
Note: *May be taken 2 times*
Study of apprenticeship, electrical inductance, capacitance and reactance, including grounded conductors, branch circuits, transformer principles, RCL circuits and filters.

AP SC 104 Semiconductor Electronics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 103*
Note: *May be taken 2 times*
Study of solid-state electronic theory and components, diodes, transistors, SCR, triacs, diacs, IC amplifiers and op-amps.

AP SC 105 Introduction to Digital Electronics and Signaling Devices (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 104*
Note: *May be taken 2 times*
Introduction to digital electronic technology and electronic equipment. Instruction includes basic digital systems, binary and decimal numbering systems, decision-making logic circuits, Boolean Algebra, flip-flops, counters, shift registers, encoders, decoders, ROMs, DC to AC converters and organization of these component blocks to accomplish manipulation of data.

AP SC 106 Management/Alarms/Codes/Circuits (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 105*
Note: *May be taken 2 times*
Introduction to management, installation of security and fire alarm systems, the National Electrical Code as it relates to alarm installation and circuits as applied to alarm systems.

AP SC 107 Life Safety and Security System Applications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 106*
Note: *May be taken 2 times*
Continuation of digital theory studies. Instruction expands coverage of Life Safety Systems, and introduces the theory and application of Nurse Call Systems and Security Systems with an emphasis on closed circuit television (CCTV) installations.

AP SC 108 Specialized Systems and Supervision Techniques (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 107*
Note: *May be taken 2 times*
Study of specialized building systems including cable television systems (CATV), master antenna systems (MATV), and building automation systems. Training will cover aspects of job administration including personal computer use, job estimating, customer relations, and building system startup procedures.

AP SC 197 Sound and Communication Systems Installer Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *Indentured apprentice to the Riverside, San Bernardino, Mono, and Inyo Counties Sound and Communications Joint Apprenticeship Committee or the San Diego Sound & Communications Joint Apprenticeship Committee.*
Note: *May be taken 4 times*
Topics in Sound and Communication Systems Installer. See Class Schedule for specific topic covered. Course title will designate subject covered.

Work Experience (AP WE)

AP WE 110 Sheet Metal Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Pass/No Pass grading only; may be taken 4 times*
Supervised on-the-job training in the Sheet Metal Trade.

AP WE 111 Carpentry Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *May be taken 4 times; Pass/No Pass grading only*
Supervised on-the-job training in the Carpentry trade.

AP WE 112 Drywall/Acoustical Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *May be taken 4 times; Pass/No Pass grading only*
Supervised on-the-job training in the Interior Systems Trade.

AP WE 113 Electrician Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *May be taken 4 times; Pass/No Pass grading only*
Supervised on-the-job training in the Electrician trade.

AP WE 114 Plasterer Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *May be taken 4 times; Pass/No Pass grading only*
Supervised on-the-job training in the Interior Systems Trade

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Arabic (ARAB)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

ARAB 101A Arabic IA **(3)**
3 hours lecture
Note: *Covers the first half of first semester Arabic.*
Transfer acceptability: *CSU; UC*
Arabic 101A and 101B are equivalent to the first semester of an elementary level course in Arabic. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with emphasis on the development of communicative skills and basic structures. This beginning-level course is for students with no previous coursework in Arabic.

ARAB 101B Arabic IB **(3)**
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ARAB 101A or one year of high school Arabic*
Note: *Covers the second half of first semester Arabic.*
Transfer acceptability: *CSU; UC*
Arabic 101A and 101B are equivalent to the first semester of an elementary level course in Arabic. ARAB 101B is a continuation of ARAB 101A. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with emphasis on the development of communicative skills and basic structures.

ARAB 102A Arabic IIA **(3)**
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ARAB 101B or two years of high school Arabic*
Note: *Covers the first half of second semester Arabic.*
Transfer acceptability: *CSU; UC*
Arabic 102A and 102B are equivalent to the second semester of an elementary level course in Arabic. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with emphasis on the development of communicative skills and basic structures.

ARAB 102B Arabic IIB **(3)**
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ARAB 102A or two years of high school Arabic*
Note: *Covers the second half of second semester Arabic.*
Transfer acceptability: *CSU; UC*
Arabic 102A and 102B are equivalent to the second semester of an elementary course in Arabic. Arabic 102B is a continuation of Arabic 102A. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with emphasis on the development of communicative skills and basic structures.

ARAB 201A Arabic IIIA **(3)**
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ARAB 102B or three years of high school Arabic*
Note: *Covers the first half of third semester Arabic.*
Transfer acceptability: *CSU; UC*
Arabic 201A and 201B are equivalent to the third semester of an intermediate course in Arabic. This intermediate level course is a study of the Arabic language and Arabic-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Arabic. Class is largely conducted in Arabic.

ARAB 201B Arabic IIIB **(3)**
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ARAB 201A*
Note: *Covers the second half of third semester Arabic.*
Transfer acceptability: *CSU; UC*
Arabic 201A and 201B are equivalent to the third semester of an intermediate level course in Arabic. ARAB 201B is a continuation of ARAB 201A. This intermediate level course is a study of the Arabic language and Arabic-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Arabic. Class is largely conducted in Arabic.

Architecture (ARCH)

Contact the Design and Consumer Eudcation Department for further information.
(760) 744-1150, ext. 2349
Office: ST-49

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Architecture
- Architectural Drafting

Certificates of Achievement -

- Architectural Drafting
- Eco-Building Professional

PROGRAMS OF STUDY

Architecture

Prepares students for advanced transfer into a university architectural program. Students should review specific course requirements and transfer agreements with their architectural instructor and a counselor.

A.A. DEGREE MAJOR*

Program Requirements

ARCH 105	Basic Architectural Drafting	3
ARCH 120	Architectural History	3
ARCH 121	Multicultural Architectural History	3
ARCH 135	Architectural Materials and Methods of Construction	3
ARCH 144	Architectural Drawing and Color	4
ARCH 145	Architectural Delineation and Pictorial Drawing	4
ARCH 215	Architectural Design Fundamentals I	5
ARCH 216	Architectural Design Fundamentals II	5

Electives (Select 9 units)

DT/ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 180	3D Studio Max - Introduction to 3D Modeling and Animation	3
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
MATH 115	Trigonometry	3
MATH 140	Calculus with Analytic Geometry, First Course	5
MATH 141	Calculus with Analytic Geometry, Second Course	4
PHYS 120	General Physics	4
PHYS 121	General Physics	4
TOTAL UNITS		**39**

*Architecture A.A. Degree Major pending approval by the California Community Colleges Chancellor's Office at the time of catalog production.

Architectural Drafting

Prepares students for employment as a design/production drafter in the field of architecture.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ARCH 105	Basic Architectural Drafting	3
DT/ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
ARCH 135	Architectural Materials and Methods of Construction	3
ARCH 144	Architectural Drawing and Color	4
ARCH 145	Architectural Delineation and Pictorial Drawing	4
ARCH 155	Architectural Theory	3
ARCH 160	Environmental Architecture and Design	4
ARCH 200	Advanced Computer Aided Architectural Drafting	4
DT/ARCH 202	Introduction to Revit Architecture	3
Electives (Select 9 units)		
ARCH 120	Architectural History	3
ARCH 121	Multicultural Architectural History	3
CSIT/R CSIS 120	Computer Applications	3
CE 100	Cooperative Education	1 - 4
CE 105	Job Hunting Techniques	1 - 3
DT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT 127	AutoCAD Customization	2
MATH 115	Trigonometry	3
TOTAL UNITS		**40**

Eco-Building Professional

This program is designed to provide the knowledge and skills needed to promote energy and resource efficient building practices through current code changes and new tax cost payback. Graduates will be prepared for numerous jobs within the deconstruction and remodel industries and would have skills needed by builders, contractors, architects or designers seeking assessment of current construction methods for framing, water use and LEED environmental compliance.

CERTIFICATE OF ACHIEVEMENT*

Program Requirements		
ARCH 135	Architectural Materials and Methods of Construction	3
ARCH 160	Environmental Architecture and Design	4
ARCH 216	Architectural Design Fundamentals II	5
ID 105	Materials and Resources	3
ID 130	Light and Color	3
Total units		**18**

Recommended Electives: GEOG 120, MATH 60

*Eco-Building Professional Certificate of Achievement pending approval by the California Community Colleges Chancellor's Office at the time of catalog production.

COURSE OFFERINGS

ARCH 105 Basic Architectural Drafting (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
An introduction to architectural drafting including symbols, lettering, construction principles, details, and codes as related to the development of working drawings for simple residential design.

ARCH 106 Intermediate Architectural Drafting (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ARCH 105*
Transfer acceptability: *CSU*
A continued study in residential design including study in details, materials, elevations, specifications, electrical, and plumbing.

ARCH 120 Architectural History (3)
3 hours lecture
Transfer acceptability: *CSU; UC – ARCH 120 and 121 combined: maximum credit, one course*
An overview of architectural history beginning with prehistoric cultures and continuing through Egyptian and Mesopotamia, Aegean and Greek, Roman and Byzantine, Romanesque and Gothic, and the Renaissance and Baroque periods. The second half of the course focuses on the development of modern western architecture.

ARCH 121 Multicultural Architectural History (3)
3 hours lecture
Transfer acceptability: *CSU; UC – ARCH 120 and 121 combined: maximum credit, one course*
A comparative study of the architecture of cultures outside the Western mainstream including: Pre-Columbian America; India and Southeast Asia, China and Japan, Russia and Eastern Europe; and the Moslem Empires. Special emphasis on the cultural forces and conditions which shaped and evolved the architecture.

ARCH 125 AutoCAD Introduction to Computer Aided Drafting (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as as DT 125; may be taken 2 times; maximum of 4 completions in any combination of ARCH/DT 125, DT 126 and DT 127.*
Transfer acceptability: *CSU; UC – ARCH 125 and 126 combined: maximum credit, one course*
An introduction to computer aided drafting using AutoCAD software and IBM compatible computers. Hands on experience with AutoCAD to include the following operations: preparing and editing drawings, storage and retrieval of drawings, and production of commercial quality drawings on a plotter. Introductory computer terminology and techniques in Windows.

ARCH 135 Architectural Materials and Methods of Construction (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
An introduction to the use and application of building construction materials and processes.

ARCH 144 Architectural Drawing and Color (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units*
An introduction to basic architectural drawing and design that explores the theory and application of perspective, shades and shadows, and color to architectural sketching, drawing, and model building. Includes a basic architectural design problem exploring the concept of architectural complexity.

ARCH 145 Architectural Delineation and Pictorial Drawing (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *DT/ARCH 125*
Note: *May not be taken for Pass/No Pass grading; may be taken 2 times*
Transfer acceptability: *CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units*
Principles and techniques of pictorial drawing in architecture including isometric, oblique, and perspective projection; shades and shadows; and presentation graphics. The three dimensional and shading capabilities of AutoCAD will be utilized in coordination with the use of Photoshop software as a color rendering tool. Abstract architectural design concepts will also be explored.

ARCH 155 Architectural Theory (3)
3 hours lecture
Transfer acceptability: *CSU*
A study and analysis of the concepts and philosophies that have influenced or been the basis of architectural form from the Classical period to the present. The analysis will include the use of drawing and model-building tools to gain an understanding of these principles applied to specific structures throughout history.

ARCH 160 Environmental Architecture and Design (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 3 times. May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units*
An introduction to the theory and application of bio-climate adaptive architectural design in small scale buildings including effective energy use, solar geometry, environmental measurements, heat flow, heat transfer, and thermal masses. Emphasis is on design and construction principles for lighting, passive shading, heating, cooling and ventilating envelope load-dominated buildings. This is a service learning course. Students must be involved in relevant community service as a part of this course work. Students will conduct research and work collaboratively towards a solution for community development.

ARCH 200 Advanced Computer Aided Architectural Drafting (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in ID 150, or ARCH/DT 125, and a minimum grade of 'C' in ARCH 105, or concurrent enrollment in ARCH 105*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced techniques in the operation of AutoCAD software for architectural applications. Preparation of various architectural working drawings from a preliminary residential design.

ARCH 202 Introduction to Revit Architecture (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ARCH 200*
Note: *Cross listed as as DT 202. May be taken 2 times*
Transfer acceptability: *CSU*
Preparation of basic 3D architectural information models and (BIM). Manipulation for preparation of individual architectural working drawings, including: dimensioned floor plans, building sections, elevations, etc. using Revit software.

ARCH 215 Architectural Design Fundamentals I (5)
2½ hours lecture - 7½ hours laboratory
Recommended preparation: *ARCH 144 and 145*
Transfer acceptability: *CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units*
Development of problem solving and analytical skills in architectural design involving consideration of factors of architectural form in two- and three-dimensional compositions, and design concepts and applications.

ARCH 216 Architectural Design Fundamentals II (5)
2½ hours lecture - 7½ hours laboratory
Recommended preparation: *ARCH 145 and 215*
Transfer acceptability: *CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units*
Complex architectural problems involving consideration of factors of structure, site, and climate.

Art (ART)

Contact the Art Department for further information.
(760) 744-1150, ext. 2302
Office: D-14

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Graphic Design
- Illustration
- Interactive Media Design - Emphasis in 3D Modeling and Animation
- Interactive Media Design - Emphasis in Multimedia Design
- Pictorial Arts - Emphasis in Painting
- Pictorial Arts - Emphasis in Printmaking
- Three-Dimensional Arts - Emphasis in Ceramics
- Three-Dimensional Arts - Emphasis in Crafts
- Three-Dimensional Arts - Emphasis in Glass
- Three-Dimensional Arts - Emphasis in Jewelry and Metalsmithing
- Three-Dimensional Arts - Emphasis in Sculpture

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Interactive Media Design - Emphasis in 3D Modeling and Animation
- Interactive Media Design - Emphasis in Multimedia Design

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Digital Animation, Compositing, and Music

PROGRAMS OF STUDY

Digital Animation, Compositing, and Music

This program is directed at the digital design and implementation of 3D animations, graphic compositing and music.

CERTIFICATE OF PROFICIENCY

Program Requirements (5 courses minimum required)		Units
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	4
GCMW 206	Motion Graphics Production and Compositing	4
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	3
TOTAL UNITS		**16-17**

Digital Animation, Compositing, and Music Certificate of Proficiency is also listed in Graphic Communications - Multimedia and Web, and in Music.

Graphic Design

Prepares students in basic skills necessary to prepare a portfolio for application to graphic Design, environmental Design, and packaging Design programs at 4 year schools. In addition, develops creative Design ability and conceptual skills in the printed media, motion graphics, and web Design.

A.A. DEGREE MAJOR

Program Requirements		Units
ART 104	Design and Composition	3
ART 166	History of Art II	3
ART 200	Color/Light and Theory	3
ARTD 100	Graphic Design I	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTD 200	Graphic Design II- Lettering and Layout	3
ARTD 210	Typography Design	3
ARTD 220	Motion Design	3
ARTD 250	New Media Studio	3
ARTI 100	Introduction to Illustration	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
BUS 150	Advertising	3
PHOT 100	Elementary Photography	3.5
Final Art Portfolio Review		0
Electives (Select 6-7 units)		
ART 120	Life Drawing and Composition I	3
ART 296	Special Projects	1, 2, 3
ARTI 220	Illustration II Digital Techniques	3
R GCIP/ GCIP 140	Digital Imaging/Photoshop I	4
R GCIP/ GCIP 152	Desktop Publishing/Illustrator I	3
RTV 275	Avid Editing for Television and Film	3
BMGT 105	Small Business Management	3
MUS 180	Computer Music I	3

MUS 181 or	Computer Music II	
MUS 184	Electronic Ensemble	3
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**48.5 - 49.5**

Graphic Design A.A. Degree Major is also listed in Art - Design.

Illustration

Provides students with specific skills necessary to prepare a portfolio for application to Illustration programs at 4-year schools. In addition develops creative conceptual and Illustrative skills for use in advertising and story Illustration.

A.A. DEGREE MAJOR

Program Requirements		**Units**
ART 104	Design and Composition	3
ART 120	Life Drawing and Composition I	3
ART 125	Head Drawing	3
ART 166	History of Art II	3
ART 200	Color/Light and Theory	3
ART 220 or	Oil Painting I	
ART 225	Acrylic Painting I	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 100	Introduction to Illustration	3
ARTI 200	Rendering	3
ARTI 210	Illustration I	3
ARTI 220	Illustration II, Digital Techniques	3
ARTI 230	Illustration III, Experimental Techniques	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
	Final Art Portfolio Review	0
Electives (Select 3 units)		
ART 121	Life Drawing and Composition II	3
ART 197B	Topics in Art – Painting	.5-3
ART 197F	Topics in Art – Drawing	.5-3
ART 235	Watercolor Painting I	3
ART 296	Special Projects	1, 2, 3
ARTD 100	Graphic Design I	3
ARTD 220	Motion Design	3
ARTD 250	New Media Studio	3
BUS 150	Advertising	3
BMGT 105	Small Business Management	3
PHOT 100	Elementary Photography	3.5
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**45**

Illustration A.A. Degree Major is also listed in ArtI – Illustration.

Interactive Media Design

Prepares students with specific skills necessary for employment in the field of multimedia design and production. Students may choose an emphasis in either 3D modeling and animation, which emphasizes production skills and authoring systems, or multimedia design, which emphasizes content development and visual design of multimedia productions. Both areas of emphasis collaborate on an actual multimedia production.

Emphasis in 3D Modeling and Animation

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
ARTI 100	Introduction to Illustration	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max–Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max–Adv 3D Modeling/Animation	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	4
GCMW 204	Motion Graphics for Multimedia	4
Electives (Select two courses)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
DT 128	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
GCIP 240	Digital Imaging/Photoshop III	4
GCMW 100	History of Multimedia	3
GCMW 201	Multimedia II	4
ENTT/RTV 120	Digital Television Production	3
TOTAL UNITS		**28 – 29**

Emphasis in Multimedia Design

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
ARTD 100	Graphic Design I	3
ARTD 220	Motion Design	3
ARTI 247	Digital 3D Design and Animation	3
GCIP 240	Digital Imaging/Photoshop III	4
GCMW/		
R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
GCMW 204	Motion Graphics for Multimedia	4
Electives (Select two courses)		
ART 197G	Topics in Art – Computer Art	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 246	Digital 3D Design/Modeling	3
DT 180	3D Studio Max–Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max–Adv 3D Modeling/Animation	3
GC 100	Graphic Communications	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	4
GCMW 100	History of Multimedia	3
GCMW 197B	Topics in Multimedia	3
GCMW/		
R GCMW 102	Web Page Layout I	4
GCMW 203	Web Multimedia	4
MUS 180	Computer Music I	3
RTV 170	Introduction to Video Editing	3
TOTAL UNITS		**31 - 33**

Interactive Media Design A.A. Degree or Certificate of Achievement is also listed in Drafting Technology and in Graphic Communications - Multimedia and Web.

Pictorial Arts

Programs are designed to enable the student to acquire skills in producing marketable fine art for gallery exhibition and commissions, enter into the commercial area, and serve as a preparation for transfer to a four-year college or university. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

Pictorial arts majors may select an emphasis in painting or printmaking within the program requirements.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Emphasis in Painting

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 103	Drawing and Composition II	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 120	Life Drawing and Composition I	3
ART 121	Life Drawing and Composition II	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 200	Color/Light and Theory	3
	Final Art Portfolio Review	0
Plus 6 units selected from the following:		
ART 220	Oil Painting I	3
ART 221	Oil Painting II	3
ART 225	Acrylic Painting I	3
ART 226	Acrylic Painting II	3
Electives (Select 6 units)		
ART 130	Printmaking I	3
ART 131	Printmaking II	3
ART 197F	Topics in Art – Drawing	.5-3
ARTI 200	Rendering	3
ARTI 210	Illustration I, Traditional Techniques	3
ARTI 220	Illustration II, Digital Techniques	3
ART 220, 221, 225, 226 (if not taken in emphasis area)		3
ART 230	Airbrush Painting I	3
ART 231	Airbrush Painting II	3
ART 235	Watercolor Painting I	3
ART 236	Watercolor Painting II	3
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**42**

Emphasis in Printmaking

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 103	Drawing and Composition II	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 120	Life Drawing and Composition I	3
ART 130	Printmaking I	3
ART 131	Printmaking II	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 200	Color/Light and Theory	3
	Final Art Portfolio Review	0
Electives (Select 6 units)		
ART 197F	Topics in Art – Drawing	.5 - 3
ART 220	Oil Painting I	3
ART 221	Oil Painting II	3
ART 225	Acrylic Painting I	3
ART 226	Acrylic Painting II	3
ART 230	Airbrush Painting I	3
ART 231	Airbrush Painting II	3
ART 235	Watercolor Painting I	3
ART 236	Watercolor Painting II	3
ARTI 210	Illustration I, Traditional Techniques	3
ARTI 220	Illustration II, Digital Techniques	3
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**39**

Three-Dimensional Arts

Programs are designed to enable the student to acquire skills in producing marketable fine art for gallery exhibition and commissions, enter into the commercial area, and serve as a preparation for transfer to a four-year college or university. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

Three-dimensional arts majors may select an emphasis in ceramics, crafts, glass, jewelry and metalsmithing, or sculpture, within the program requirements.

Emphasis in Ceramics

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 135	Ceramics I	3
ART 136	Ceramics II	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 250	Ceramics III	3
ART 260	Sculpture I	3
ART 265	Ceramic Sculpture I	3
ART 266	Ceramic Sculpture II	3
	Final Art Portfolio Review	0
Electives (Select 6 units)		
ART 137	Pottery Production	3
ART 140	Foundry Techniques in Sculpture I	3
ART 147	Design in Enamels	3
ART 160	Glassblowing-Offhand I	3
ART 261	Sculpture II	3
PHOT 100	Elementary Photography	3.5
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**42**

Emphasis in Crafts

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 135	Ceramics I	3
ART 145	Design in Mixed Media	3
ART 146	Design in Wood	3
ART 147	Design in Enamels	3
ART 150	Jewelry and Metalsmithing Design I	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 260	Sculpture I	3
	Final Art Portfolio Review	0
Electives (Select 6 units)		
ART 136	Ceramics II	3
ART 140	Foundry Techniques in Sculpture I	3
ART 151	Jewelry and Metalsmithing Design II	3
ART 155	Stained Glass I	3
ART 261	Sculpture II	3
ART 270	Jewelry and Metalsmithing Design III	3
ART 275	Stained Glass II	3
PHOT 100	Elementary Photography	3.5
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**42**

Emphasis in Glass

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 135	Ceramics I	3
ART 145	Design in Mixed Media	3
ART 155	Stained Glass I	3
ART 160	Glassblowing-Offhand I	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 260	Sculpture I	3
ART 280	Glassblowing-Offhand II	3
	Final Art Portfolio Review	0
Electives (Select 4-6 units)		
ART 140	Foundry Techniques in Sculpture I	3
ART 146	Design in Wood	3
ART 147	Design in Enamels	3
ART 150	Jewelry and Metalsmithing Design I	3
ART 275	Stained Glass II	3
ART 276	Cold Glass Design	1
ART 277	Glass Casting	1
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**40 – 42**

Emphasis in Jewelry and Metalsmithing

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 145	Design in Mixed Media	3
ART 147	Design in Enamels	3
ART 150	Jewelry and Metalsmithing Design I	3
ART 151	Jewelry and Metalsmithing Design II	3
ART 205	Indirect Metal Forming	3
ART 270	Jewelry and Metalsmithing Design III	3
	Final Art Portfolio Review	0
Electives (Select 6 units)		
ART 135	Ceramics I	3
ART 140	Foundry Techniques in Sculpture I	3
ART 146	Design in Wood	3
ART 260	Sculpture I	3
ART 265	Ceramic Sculpture I	3
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**42**

Emphasis in Sculpture

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Drawing and Composition I	3
ART 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 135	Ceramics I	3
ART 140	Foundry Techniques in Sculpture I	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 260	Sculpture I	3
ART 261	Sculpture II	3
ART 265	Ceramic Sculpture I	3
ART 266	Ceramic Sculpture II	3
	Final Art Portfolio Review	0
Electives (Select 6 units)		
ART 136	Ceramics II	3
ART 145	Design in Mixed Media	3
ART 150	Jewelry and Metalsmithing Design I	3
ART 160	Glassblowing-Offhand I	3
ART 205	Indirect Metal Forming	3
ART 255	Foundry Techniques/Sculpture II	3
PHOT 110	Basic 35mm Color Photo	3
TOTAL UNITS		**42**

COURSE OFFERINGS

An activity may be taken four times for credit. Activity is defined to include all ability levels (e.g., A student may take a total of only four Ceramics courses for credit). Ceramics and Jewelry and Metalsmithing classes are defined as activity courses.

ART 100 Introduction to Art (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Promotes an understanding and appreciation of art through slide-lectures, discussion, and museum visits. For non-art majors.

ART 101 Methods and Materials (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to the aesthetic and technical potential of a variety of materials and methods basic to various art disciplines. Concentration on the skills needed to use these materials in a two- and three-dimensional art.

ART 102 Drawing and Composition I (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC - ART 102, 103 and ARCH 144, 145, 160, 215, 216 combined: maximum credit, 18 units*
A basic studio course in the media and technique of drawing. An introduction to pictorial structure, visual elements, use of perspective, and rendering and sketching techniques. This course is designed to develop skills for both commercial and fine arts.

ART 103 Drawing and Composition II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC - ART 102, 103 and ARCH 144, 145, 160, 215, 216 combined: maximum credit, 18 units*
The development of subject and theme concepts with varied approaches to composition and the use of media. Introduction to abstract composition and mixed media techniques as a preliminary to painting.

ART 104 Design and Composition (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Basic instruction in flat design. The study of line, color, value, shape, texture, form, and the principles of composition. Experience in a variety of media. Essential to students of fine and commercial art, photography, graphic arts, architectural, and interior design.

ART 105 Three-Dimensional Form and Design (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Basic instruction in sculptural forms and structures. A variety of media is explored.

ART 106 Figure Painting (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Examines the use of oil, acrylic or watercolor in modeling the human form. Particular attention will be placed on color mixing, drawing and paint application.

ART 120 Life Drawing and Composition I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'B' in at least one semester of a college-level drawing course*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
A basic course in the fundamentals of drawing the human figure. The use of the figure as an element of both naturalistic and expressive rendering.

ART 121 Life Drawing and Composition II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 120*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC–Credit Limitations - Credit for only one attempt*
An exploration of the human figure as the basic subject of creative and experimental composition.

ART 123 Arts Across the Curriculum (3)
3 hours lecture
Note: *Cross listed as: DNCE 123/ MUS 123/ TA 123*
Transfer acceptability: *CSU*
This course is an introduction to the artistic creative process through a comparative study of dance, music, theatre, and visual arts, within a social and cultural context. The principles of artistic perception, creative expression, cultural and historical context, and aesthetic valuing will be discussed.

ART 125 Head Drawing (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 or ARTI 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Introduction to human head drawing. Special emphasis on techniques designed to illustrate musculoskeletal relationships that distinguish differences in age, sex, and personality.

ART 130 Printmaking I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Introduction to the techniques of etching, aquatint, drypoint, photo engraving, and wood and linoleum cuts. Problems in multicolor intaglio and multicolor relief printing. Design and composition in relation to the media will be emphasized.

ART 131 Printmaking II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 130*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Continued practice in the creation of fine prints. Mixed media and the photointaglio process are explored.

ART 132 Lithography and Experimental Printmaking (1)
2 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to the techniques of plate lithography and experimental lithographic processes.

ART 133 Etching (1)
2 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to the techniques of etching, aquatint and drypoint.

ART 135 Ceramics I (3)
6 hours lecture/laboratory
Note: *May be taken 2 times; maximum of 4 completions in any combination of ART 135, ART 136, ART 250*
Transfer acceptability: *CSU; UC*
An introduction to basic forming techniques in clay and various surface treatments.

ART 136 Ceramics II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 135*
Note: *May be taken 2 times; maximum of 4 completions in any combination of ART 135, ART 136, ART 250*
Transfer acceptability: *CSU; UC*
Advanced studies in handbuilding and wheel throwing techniques. Continuing study of various surface techniques. Techniques of glaze and facility maintenance.

ART 137 Pottery Production (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 135*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Wheel throwing production, kiln use and construction, mixing and maintaining glazes, studio maintenance, decorative techniques, and marketing skills and techniques.

ART 138 Ceramic Surface Decoration (1)
2 hours lecture/laboratory
Recommended preparation: *ART 135, 136, and 250*
Transfer acceptability: *CSU*
A study of ceramic surface treatments and decorative techniques.

ART 139 Raku Techniques (1)
2 hours lecture/laboratory
Recommended preparation: *ART 135, 136, and 250*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Exploration of the raku ceramic process and related earthenware decorative techniques.

ART 140 Foundry Techniques in Sculpture I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 105*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Theory and practice in casting skills using foundry techniques.

ART 145 Design in Mixed Media (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Design and production of useful "one-of-a-kind" or "limited edition" objects of art. Attention to the visual as well as structural character of chosen materials. Media may include wood, metal, fibers, plastics, and bone and leather alone or in combination.

ART 146 Design in Wood (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Explores in depth the sculptural and functional qualities of wood. Original designs may include useful forms such as furniture, containers, and architectural ornaments as well as fantasy forms. Benefits students of three-dimensional art and wood technology.

ART 147 Design in Enamels (3)
6 hours lecture/laboratory
Recommended preparation: *ART 104*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Exploration of the creative and aesthetic possibilities of enameling. Principles and techniques in two- and three- dimensional designs.

ART 150 Jewelry and Metalsmithing Design I (3)
6 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of ART 150, ART 151, ART 270*
Transfer acceptability: *CSU*
Projects in two- and three-dimensional jewelrymaking and metalsmithing. Study of the relationship of design to materials and of contemporary metal working techniques.

ART 151 Jewelry and Metalsmithing Design II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 150*
Note: *May be taken 2 times; maximum of 4 completions in any combination of ART 150, ART 151, ART 270*
Transfer acceptability: *CSU*
Exploration of manipulation of metal and surface decoration including stone setting.

ART 155 Stained Glass I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 104*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to the materials and processes involved in the creation of flat glass objects. Emphasis on design potential and creative possibilities of the medium.

ART 160 Glassblowing-Offhand I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 104 or 105*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
The study of the properties and structure of glass and materials, equipment, and techniques used to work it in offhand method.

ART 165 History of Art I: Survey of Western Art (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The art forms and styles of Western man from the Paleolithic period through Medieval Gothic. Emphasis on the contribution of religion, social and political structures, heritage, and inter-cultural contacts as they influence changes in form and style.

ART 166 History of Art II: Survey of Western Art (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The art forms and styles of Western man from the Renaissance to the present. Emphasis on the style of individual artists and national styles as well as the contribution of religious, social, and political influences. Focus on European art, but with discussion of American art and architecture, as well as influences from non-Western art and cultures.

ART 167 History of Modern Art I: 19th Century Europe and America (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
European and American painting, sculpture, and architecture from 1700 to 1900. Emphasis on the styles and contributions of individual artists as well as the influence of social, political, and cultural developments.

ART 168 History of Modern Art II: 20th Century Europe and America (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Twentieth Century European and American painting, sculpture, and architecture. Emphasis on the styles and contributions of individual artists as well as the aesthetic, political, and psycho-sociological motivations behind the art of the 20th century.

ART 182 Introduction to Arts Management (3)
9 hours laboratory
Note: *Cross listed as AMS 182/ DNCE 182/ MUS 182/TA 182*
Transfer acceptability: *CSU*
An introduction to the principles and practices of arts management through an interdisciplinary study of management topics in the visual and performing arts.

ART 183 Internship in Arts Management (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AMS/ART/DANCE/MUS/TA 182*
Note: *Cross listed as AMS 183/ DNCE 183/ MUS 183/TA 183*
Transfer acceptability: *CSU*
Practical experience in arts management in the visual and performing arts.

ART 197A Topics in Art – Printmaking (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Short and extended term lecture workshops or laboratory courses in various specialized aspects of printmaking.

ART 197B Topics in Art – Painting (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Short and extended term lecture-workshops or laboratory courses in various specialized aspects of painting.

ART 197C Topics in Art – Glass (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU*
Short and extended term lecture workshops or laboratory courses in various specialized aspects of glass.

ART 197D Topics in Art – Ceramics (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Short and extended term lecture workshops or laboratory courses in various specialized aspects of ceramics.

ART 197E Topics in Art – Sculpture (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to class schedule.
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Short and extended term lecture workshops or laboratory courses in various specialized aspects of sculpture.

ART 197F Topics in Art – Drawing (.5-3)
1 to 6 hours lecture/laboratory
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU*
Short and extended term lecture-workshops or laboratory courses in various aspects of drawing techniques.

ART 197G Topics in Art – Computer Art (.5-3)
1 to 6 hours lecture/laboratory
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU*
Short and extended term lecture-workshops or laboratory courses in which a teacher utilizes and teaches special computer hardware/ software relationships and processes to produce art.

ART 197H Topics in Art – General (.5-3)
1 to 6 hours lecture/laboratory
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU*
Short and extended term lecture-workshops or laboratory courses in various aspects of art. Course title will designate subject covered.

ART 200 Color/Light and Theory (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 and 104*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Investigations into the phenomenon of color and its use in art. Problems involving color and design in various media, including acrylics and collage. Exploration of the role of color in Western art from late 19th Century to the present.

ART 205 Indirect Metal Forming (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 150 or 260*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Exploration of indirect metal forming in jewelry and small sculpture. Projects in lost wax centrifugal and gravity casting, electroforming, and metal spraying.

ART 213 Illustration/Life Drawing (1)
2 hours lecture/laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
The study of techniques used in drawing and painting from both nude and costumed models.

ART 214 Head Painting (1)
2 hours lecture/laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Introduction to painting techniques as they apply to the human head. Critical analysis and application of color theory and mixing principles. Analysis of human facial planes, proportion and bone structure in the application of either oil or acrylic paint.

ART 220 Oil Painting I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 103 and 200, or concurrent enrollment in ART 103 and 200*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Fundamental methods and concepts of studio painting using oil color as the primary medium. Concentration on gaining technical skills in pictorial composition, subject interpretation, brush handling, and the use of color. Exploration of historical and contemporary styles, attitudes, and techniques.

ART 221 Oil Painting II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 220*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Advanced projects in the concepts and techniques of oil painting with concentration on individual creative progress and development.

ART 225 Acrylic Painting I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 103 and 200, or concurrent enrollment in ART 103 and 200*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Concepts of studio painting utilizing acrylic based colors as the primary medium. Exploration of different styles and techniques with emphasis on contemporary modes of expression. Concentration on gaining skills in composition, brush handling, and the use of color.

ART 226 Acrylic Painting II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 225*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Advanced projects in the concepts and techniques of acrylic painting with emphasis on individual creative progress and development.

ART 230 Airbrush Painting I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 103 and 200, or concurrent enrollment in ART 103 and 200*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Emphasis on developing skills in airbrush painting and masking techniques for use in fine arts, commercial art, and photo retouching. The theory, use, and maintenance of airbrushes and associated equipment.

ART 231 Airbrush Painting II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 230*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Creative approaches to airbrush painting. A continued study of airbrush techniques used in fine arts, commercial art, and photo retouching.

ART 235 Watercolor Painting I (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Fundamental approaches to the use of watercolors and other waterbase paints in creative painting. Concentration on both literal and expressive modes utilizing a variety of subjects.

ART 236 Watercolor Painting II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 235*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Advanced work in watercolor media.

ART 250 Ceramics III (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 136*
Note: *May be taken 2 times; maximum of 4 completions in any combination of ART 135, ART 136, ART 250*
Transfer acceptability: *CSU; UC*
Creative and experimental handbuilding, advanced throwing, firing techniques, glaze evaluation, and special research.

ART 255 Foundry Techniques in Sculpture II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 140*

Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced theory and practices in casting skills using foundry techniques.

ART 260 Sculpture I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 and 105, or concurrent enrollment in ART 102 and 105*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Design and fabrication of expressive three-dimensional forms. Exploration of both historical and contemporary sculptural materials with emphasis on 20th Century models of expression.

ART 261 Sculpture II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 260*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Advanced projects in the concept and creation of original sculpture.

ART 265 Ceramic Sculpture I (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 or 104 or 105, and ART 135*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Creative projects and experimentation using clay as the primary material for non-utilitarian expressive forms.

ART 266 Ceramic Sculpture II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 265*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Advanced problems in creative and experimental uses of clay for non-utilitarian expressive forms.

ART 270 Jewelry and Metalsmithing Design III (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 151*
Note: *May be taken 2 times; maximum of 4 completions in any combination of ART 150, ART 151, ART 270*
Transfer acceptability: *CSU*
Continued exploration of the manipulation of metal. Advanced projects in jewelry and metalsmithing.

ART 275 Stained Glass II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 155*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Creative expression in flat glass. Emphasis on architectural and fine arts application of the medium. Painting, enameling, and etching techniques will be explored in depth.

ART 276 Cold Glass Design (1)
2 hours lecture/laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Applications of the materials and processes involved in the production of flat glass materials. Emphasis is on the design of stained glass and problem solving during fabrication of designs.

ART 277 Glass Casting (1)
2 hours lecture/laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
The study of the properties of molten glass as applied to glass casting. The acquisition of knowledge through problem solving using open face glass casting techniques.

ART 280 Glassblowing-Offhand II (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ART 160*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced problems in the creation of fine blown glass.

ART 295 Directed Study in Art (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in 18 units of college-level art including ART 102, 104 or 105, 165, and 166, and instructor's approval of proposed project or research*
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Independent study for advanced students dealing with projects or research in areas not covered by regular classes. Students will work under the guidance of an instructor.

ART 296 Special Projects (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'B' in 6 units of college-level course work in a specialized area of art, and instructor's approval of the proposed project*
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC– Credit determined by UC upon review of course syllabus.*
A course for the student who has demonstrated a proficiency in art and wishes to work beyond existing classes or desires to pursue a project which does not fit into the context of existing classes. Students will work directly with an instructor.

Art - Design (ARTD)

Contact the Art Department for further information.
(760) 744-1150, ext. 2302
Office: D-14

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Graphic Design

PROGRAM OF STUDY

Graphic Design

Prepares students in basic skills necessary to prepare a portfolio for application to graphic Design, environmental Design, and packaging Design programs at 4 year schools. In addition, develops creative Design ability and conceptual skills in the printed media, motion graphics, and web Design.

A.A. DEGREE MAJOR

Program Requirements		Units
ART 104	Design and Composition	3
ART 166	History of Art II	3
ART 200	Color/Light and Theory	3
ARTD 100	Graphic Design I	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTD 200	Graphic Design II- Lettering and Layout	3
ARTD 210	Typography Design	3
ARTD 220	Motion Design	3
ARTD 250	New Media Studio	3
ARTI 100	Introduction to Illustration	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
BUS 150	Advertising	3
PHOT 100	Elementary Photography	3.5
Final Art Portfolio Review		0
Electives (Select 6-7 units)		
ART 120	Life Drawing and Composition I	3

ART 296	Special Projects	1, 2, 3
ARTI 220	Illustration II Digital Techniques	3
R GCIP/ GCIP 140	Digital Imaging/Photoshop I	4
R GCIP/ GCIP 152	Desktop Publishing/Illustrator I	3
RTV 275	Avid Editing for Television and Film	3
BMGT 105	Small Business Management	3
MUS 180	Computer Music I	3
MUS 181 or MUS 184	Computer Music II Electronic Ensemble	3
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**48.5 - 49.5**

Graphic Design A.A. Degree Major is also listed in Art.

COURSE OFFERINGS

ARTD 100 Graphic Design I (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Design principles as they apply to graphic communication. Abstract and pictorial Design for the printed media. Film and architectural signage. Lettering is applied as an abstract Design element.

ARTD 150 Digital Concepts and Techniques in Art (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ARTD 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
An overview of vector based and pixel based computer applications, and how they are used in a creative environment. Understanding of the underlying logic of computer software will be taught with an emphasis on the role of the computer in all forms of modern art-making. Students will learn how to use the computer as a tool effectively while developing their own method of creating digital artwork. Cross-platform issues will be addressed, as well as file preparation for various output media.

ARTD 200 Graphic Design II – Lettering and Layout (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ARTD 100*
Recommended preparation: *ARTD 150*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
The study of the historical roots and nomenclature of lettering forms and the development of grid systems to aid in the development of successful layout designs. Design and assembly utilizing both hand skills and computer software will be taught.

ARTD 210 Typography Design (3)
6 hours lecture/laboratory
Recommended preparation: *ARTD 150*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to the historical roots and contemporary technology of typography. Provides a critical analysis of technical processes and elements through assignments that define its symbolic and communicative aspects.

ARTD 220 Motion Design (3)
6 hours lecture/laboratory
Recommended preparation: *ARTD 150*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
An introduction to the concepts and techniques of animation and multimedia for personal computers using After Effects. Emphasis will be placed on the role of the artist and in the development process and as a key link in determining the success of the final project.

ARTD 250 New Media Studio (3)
6 hours lecture/laboratory
Prerequisite: *Enrollment based on portfolio review with list of criteria*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
An advanced class using digital tools that focuses on collaborative creative projects. Joint concept development, communication, critical thinking and creative teamwork will be stressed. Emphasis will be placed on the integration of graphic design, illustration. 2-D and 3-D animation and fine art components into professional quality multimedia projects. Students from the Art Department will have the opportunity to collaborate with students from music and computer science.

Art - Illustration (ARTI)

Contact the Art Department for further information.
(760) 744-1150, ext. 2302
Office: D-14

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Illustration

PROGRAMS OF STUDY

Illustration

Provides students with specific skills necessary to prepare a portfolio for application to Illustration programs at 4-year schools. In addition develops creative conceptual and Illustrative skills for use in advertising and story Illustration.

A.A. DEGREE MAJOR

Program Requirements		**Units**
ART 104	Design and Composition	3
ART 120	Life Drawing and Composition I	3
ART 125	Head Drawing	3
ART 166	History of Art II	3
ART 200	Color/Light and Theory	3
ART 220 or ART 225	Oil Painting I Acrylic Painting I	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 100	Introduction to Illustration	3
ARTI 200	Rendering	3
ARTI 210	Illustration I – Traditional Techniques	3
ARTI 220	Illustration II – Digital Techniques	3
ARTI 230	Illustration III – Experimental Techniques	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
	Final Art Portfolio Review	0
Electives (Select 3 units)		
ART 121	Life Drawing and Composition II	3
ART 197B	Topics in Art – Painting	.5-3
ART 197F	Topics in Art – Drawing	.5-3
ART 235	Watercolor Painting I	3
ART 296	Special Projects	1, 2, 3
ARTD 100	Graphic Design I	3
ARTD 220	Motion Design	3
ARTD 250	New Media Studio	3
BUS 150	Advertising	3
BMGT 105	Small Business Management	3
PHOT 100	Elementary Photography	3.5
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**45**

Illustration A.A. Degree Major is also listed in Art.

COURSE OFFERINGS

ARTI 100 Introduction to Illustration (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
A course on proportion and structure, quick sketching, gesture, and contour drawing. Included is the study of perspective and drawing of mechanical and natural forms by the use of line and value. Emphasis is placed on the evolutionary development of visual ideas.

ARTI 200 Rendering (3)
6 hours lecture/laboratory
Recommended preparation: *ART 103, ARTI 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Application of various media and techniques for illustrating known products and services or the illustration of design ideas for students in design and architecture. Emphasis is on the development of proficiency and the encouragement of comparison of student work with current professional work.

ARTI 210 Illustration I – Traditional Techniques (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ARTI 100*
Transfer acceptability: *CSU*
Course work that reflects the types of assignments an illustrator may encounter in the industry, using a variety of traditional media and techniques. Contemporary principles of concept development and problem solving will be explored, using stylization, design, composition and color as methods of communication. Accurate analysis, historical reference, oral and graphic presentation of ideas, sketches and finished art will be stressed.

ARTI 220 Illustration II – Digital Techniques (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ARTI 200 and ARTI 210*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
A course for advanced illustration students that focuses on creating non-traditional professional level commercial artwork. Media experimentation, and combination of traditional methods with digital applications is used to create finished pieces that are conceptually and visually interesting and strong. Students are encouraged to develop and strengthen personal and distinctive approaches to Illustration. Portfolio preparation for admission to high quality 4-year art and design programs, or for entry into to the work force will be examined and applied. Students will also gain insight into self-promotion and marketing strategies. Contracts, self-employment issues and billing procedures will be explained.

ARTI 230 Illustration III – Experimental Techniques (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ARTI 220*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Coursework will reflect advanced illustration concepts, conceptually and technically. Students will combine experimental traditional and digital techniques to create projects that reflect a professional level of finish and format. Projects will focus on conceptual content and process, and represent a range of possible industry application, such as entertainment design, editorial illustration and illustrations for an interactive environment.

ARTI 246 Digital 3D Design and Modeling (3)
6 hours lecture/laboratory
Recommended preparation: *ARTD 150*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Fundamentals of computerized 3-D modeling and Design. Hands on experience with modeling, lighting, developing texture maps and rendering.

ARTI 247 Digital 3D Design and Animation (3)
6 hours lecture/laboratory
Recommended preparation: *ARTD 220*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Concepts and techniques of 3-dimensional animation using Maya software. The course will provide an understanding of the production, animation and postproduction process.

Astronomy (ASTR)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Astronomy

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Astronomy

Planetarium
Palomar College offers several types of planetarium programs for the community. School programs are presented on Tuesday and Thursday mornings for area elementary and secondary schools. The planetarium also offers two evening shows a month, open to the public. For further information, contact the planetarium at (760) 744-1150, ext. 2833 or the Earth, Space, and Aviation Sciences Department.

PROGRAM OF STUDY

Astronomy

Provides the student with sufficient background to begin upper division course work. Transfer students should consult the four year college or university catalog for specific requirements or see a Palomar College counselor. Students pursuing a major in Astronomy at San Diego State University must complete a minor in Mathematics.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ASTR 100	Principles of Astronomy	3
ASTR 105L	Introduction to Astronomy Laboratory	1
ASTR/GEOL 120	Planets, Moons and Comets	3
MATH 140	Calculus/Analytic Geometry, First Course	5
MATH 141	Calculus/Analytic Geometry, Second Course	4
MATH 205	Calculus/Analytic Geometry, Third Course	4
PHYS 230	Principles of Physics	5
PHYS 231	Principles of Physics	5
PHYS 232	Principles of Physics	4
TOTAL UNITS		**34**

Recommended Electives: ASTR 210, 295

COURSE OFFERINGS

ASTR 100 Principles of Astronomy (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The fundamental nature of the night sky as understood by pre 20th century scientists. Properties of the solar system, stars, black holes, galaxies, and extragalactic objects. Interstellar communication and extraterrestrial life.

ASTR 105L Introduction to Astronomy Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ASTR 100 or 120, or concurrent enrollment in ASTR 100 or 120*
Transfer acceptability: *CSU; UC*

Exploration of the techniques used in astronomy to determine the physical properties of stars and galaxies. The physical nature of light and the optical principles of a telescope are also explored. Measurements of planetary and stellar phenomena are used to investigate the astronomical methods of determining the size, composition and age of the universe.

ASTR 120 Planets, Moons, and Comets (3)
3 hours lecture
Note: *Cross listed as GEOL 120*
Transfer acceptability: *CSU; UC*
The astronomy and geology of the solar system, observations, dynamics relativistic ideas, including theories of formation and evolution. Comparative survey of the atmospheres, surface features and interiors of planets and satellites. Minor objects, such as comets and asteroids, will be included.

ASTR 197 The Universe: Contemporary Topics in the Space Sciences (1-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Selected topics in astronomy and space sciences, emphasizing current research and discoveries. Refer to the Class Schedule for specific topics covered.

ASTR 210 Life in the Universe (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ASTR 100 or 120*
Transfer acceptability: *CSU*
A scientific exploration of life in the universe using the findings of astronomy biology, and chemistry. Topics include the development of life and its environments on Earth, the search for life in the cosmos, interstellar communications and travel, and the effects of contact.

ASTR 295 Directed Study in Astronomy (1, 2, 3)
Arrange 3, 6, or 9 hours laboratory with department chairperson
Prerequisite: *A minimum grade of 'C' in ASTR 100 or 120*
Note: *May be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Individual study in field, library, or laboratory for interested students.

Athletics and Competitive Sports (ACS)

Contact the Athletics Program for further information.
(760) 744-1150, ext. 2460
Office: O-10

Palomar College offers intercollegiate sports for men and women. They include softball, basketball, golf, tennis, soccer, volleyball, swimming and diving, water polo, football, wrestling, cross country, and baseball. Teams will compete in one of four conferences: Mission Conference, Orange Empire Conference, South Coast Conference, and Pacific Coast Conference. Member colleges are located in the Los Angeles, Orange County, Riverside, and San Diego areas. In order to participate in intercollegiate athletics a student must fulfill the following requirements:

1. Obtain a physical clearance by the team physician.
2. Enroll in 12 units. Students are encouraged to register for a minimum of 9 units in courses other than Physical Education activity classes or Athletics and Competitive Sports classes.
3. Successfully complete 24 units prior to a second season of participation. A minimum of 18 units must be completed in courses other than Physical Education activity classes or Athletics and Competitive Sports classes.
4. Maintain a 2.0 or higher grade point average in all course work.
5. Participate in the Palomar College matriculation program which includes English, math and reading skills assessment.
6. Participate in the Palomar College Athletic Academic Advisement Program which includes:
   a. Establishment of an Individual Education Plan prior to second semester of enrollment.
   b. Academic assessment of course progress following the 4th, 8th, and 12th week of each semester.
   c. Fulfilling tutorial or study hall requirements as assigned by the instructor advisor.

INTERCOLLEGIATE ATHLETIC COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

ACS 50 Introduction to Collegiate Athletics (1)
1 hour lecture
Program for matriculation, eligibility rules, exploring and identifying major emphasis of study, academic success skills, educational planning as it relates to transfer as a student athlete.

ACS 55 Cheerleading (3)
6 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Previous cheerleading experience*
Note: *This is a TBA class and will require travel away from the college on weekends and other dates; may be taken 4 times*
Designed to teach the fundamentals of cheerleading. Students will explore practical and theoretical aspects of competitive and non-competitive cheerleading. Students will acquire knowledge of, and respect for, the skills needed to perform at college events and competition.

ACS 101 Intercollegiate Softball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides women with the opportunity to develop advanced skills and the strategies in intercollegiate softball which will be applied to competitive situations.

ACS 110 Intercollegiate Basketball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate basketball which will be applied to competitive situations.

ACS 115 Intercollegiate Golf (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men with the opportunity to develop advanced skills and the strategies in intercollegiate golf which will be applied to competitive situations.

ACS 120 Intercollegiate Tennis (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate tennis which will be applied to competitive situations.

ACS 125 Intercollegiate Soccer (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*

Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate soccer which will be applied to competitive situations.

ACS 130 Intercollegiate Volleyball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate volleyball which will be applied to competitive situations.

ACS 135 Intercollegiate Swimming and Diving (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate swim/diving which will be applied to competitive situations.

ACS 140 Intercollegiate Water Polo (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate water polo which will be applied to competitive situations.

ACS 145 Intercollegiate Football (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate football which will be applied to competitive situations.

ACS 150 Intercollegiate Wrestling (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate wrestling which will be applied to competitive situations.

ACS 155 Intercollegiate Baseball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate baseball which will be applied to competitive situations.

ACS 160 Intercollegiate Cross Country (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units*
This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate cross country which will be applied to competitive situations.

ACS 165 Intercollegiate Track and Field (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units.*
This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate track and field which will be applied to competitive situations.

ACS 197 Topics in Athletics and Competitive Sports (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC - max credit combined with PE activity courses, 4 units.*
Topics in Athletics and Competitive Sports. See Class Schedule for specific topic offered. Course title will designate subject covered.

Automotive Technology (AT)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-1

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Auto Chassis and Drive Lines
- Auto Collision Repair
- Electronic Tune Up and Computer Control Systems
- Mechanics - General

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Auto Chassis and Drive Lines
- Auto Collision Repair
- Electronic Tune Up and Computer Control Systems
- Mechanics - General

PROGRAMS OF STUDY

Auto Chassis and Drive Lines

This program will prepare students for entry level positions in all aspects of the Automotive Industry with an emphasis in drive-line repair.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AT 105	Automotive Electricity	3
AT 105L	Automotive Electricity Computer Training Lab	1
AT 120	Automatic Transmissions and Drive Lines	3
AT 130	Automotive Brakes	3
AT 135	Front End Alignment and Wheel Service	3
AT 160	Associated Studies in Automotives	3
AT 220	Advanced Automotive Transmissions	3
IT 108/WELD 108	Technical Mathematics	3
R AT 50 or	Auto Body Repair 1	4
WELD 100	Welding 1	3
TOTAL UNITS		**25 - 26**

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Auto Collision Repair

This program will prepare students for an entry level position in the automotive collision repair industry.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
R AT 50	Auto Body Repair I	4
R AT 51	Auto Body Repair II	4
R AT 55	Auto Refinishing I	4
R AT 56	Auto Refinishing II	4
IT 108 / WELD 108	Technical Mathematics	3
Elective Courses (Select 6 units)		
AT 100	Auto Maintenance and Minor Repair	3
AT 105	Automotive Electricity	3
AT 105L	Automotive Electricity Computer Training Lab	1
AT 150	Chassis Restoration and Assembly	3
AT 155	Body Restoration and Assembly	3
AT/R AT 97	Auto Body Repair/Auto Refinishing Topics	0.5 - 4
WELD 100	Welding I	3
CE 100	Cooperative Education	1 - 4
Total units		**25.00**

Auto Collision Repair A.A. Degree or Certificate of Achievement is also listed under R.O.P. Automotive Technology.

Electronic Tune Up and Computer Control Systems

This program will prepare students for entry level positions in all aspects of the Automotive Industry with an emphasis in drive-ability concerns.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AT 105	Automotive Electricity	3
AT 105L	Automotive Electricity Computer Training Lab	1
AT 110	Automotive Tune up and Engine Analysis	3
AT 110L	Automotive Tune up and Computer Training Lab	1
AT 115	Automotive Fuel Injection and Fuel Systems	3
AT 115L	Automotive Fuel Systems Computer Training Lab	1
AT 160	Associated Studies in Automotives	3
AT 210	Specialized Automotive Electronics	3
AT 215	Automotive Emission Control	3
IT 108/WELD 108	Technical Mathematics	3
Electives (Select 6-7 units)		
AT 100	Auto Maintenance and Minor Repair	3
AT 145	Auto Emissions/Diagnosis	3
AT 165	Automotive Air Conditioning	2
DMT 70 or DMT 55	Med-Duty Diesel Engine Tune up Heavy-Duty Diesel Tune up/Analysis	4
WELD 100	Welding I	3
CE 100	Cooperative Education	2, 3
TOTAL UNITS		**30 - 31**

Mechanics-General

This program will prepare students for entry level positions in all aspects of the Automotive Industry.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AT 105	Automotive Electricity	3
AT 105L	Automotive Electricity Computer Training Lab	1
AT 110	Automotive Tune up and Engine Analysis	3
AT 110L	Automotive Tune up Computer Training Lab	1
AT 120	Automatic Transmissions and Drive Lines	3
AT 125	Automotive Machining	3
AT 130	Automotive Brakes	3
AT 160	Associated Studies in Automotives	3
AT 220	Advanced Automotive Transmissions	3
AT 225	Automotive Engine Rebuilding	3
IT 108/WELD 108	Technical Mathematics	3
Electives (Select 4 units)		
AT 100	Auto Maintenance and Minor Repair	3
AT 115 and AT 115L	Automotive Fuel Injection and Fuel Systems Automotive Fuel Systems Computer Training Lab	3 1
AT 165	Automotive Air Conditioning	2
R AT 50	Auto Body Repair I	4
WELD 100	Welding I	3
CE 100	Cooperative Education	2, 3, 4
TOTAL UNITS		**34 - 38**

COURSE OFFERINGS

AT 100 Auto Maintenance and Minor Repair (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Designed for the student with little or no background in the automotive field. The course covers many maintenance and minor repair items as well as basic theory of operation. The areas covered include batteries, cooling systems, drive belts, lubrication, brakes, tires, and consumer education.

AT 105 Automotive Electricity (3)
2 hour lecture - 3 hours laboratory
Corequisite: *AT 105L*
Auto electrical systems including A.C. generators, batteries, solid state starters, wiring diagrams, and/or electrical troubleshooting and repair that includes solid state and low voltage low amperage systems.

AT 105L Automotive Electricity Computer Training Lab (1)
3 hours laboratory
Corequisite: *AT 105*
Students will use training computers to complete assignments in automotive electricity. Hi-tech automotive simulators and trainers will be used to enhance student learning. Software will also be used for Automotive Service Excellence (ASE) certification preparation.

AT 110 Automotive Tune Up and Engine Analysis (3)
2 hours lecture - 3 hours laboratory
Corequisite: *AT 110L*
The use of tune up testing and diagnostic equipment; the study of conventional and electronic ignition systems; compression, cylinder balance, and dynamometer testing.

AT 110L Automotive Tune Up Computer Training Lab (1)
3 hours laboratory
Corequisite: *AT 110*
Students will use training computers to complete assignments in automotive engine performance. Hi-tech automotive simulators and trainers will be used to enhance student learning. Software will also be used for Automotive Service Excellence (ASE) certification preparation.

AT 115 Automotive Fuel Injection and Fuel Systems (3)
2 hours lecture - 3 hours laboratory
Corequisite: *AT 115L*
The principles, technical knowledge, and work experience in the field of retion and fuel injection. Specific topics include four barrel carburetors; fuel injection; fuel supply systems; and combustion evaluation instruments.

AT 115L Automotive Fuel Systems Computer Training Lab (1)
3 hours laboratory
Corequisite: *AT 115*
Students will use training computers to complete assignments in automotive fuel systems. Hi-tech automotive simulators and trainers will be used to enhance student learning. Software will also be used for Automotive Service Excellence (ASE) certification preparation.

AT 120 Automatic Transmissions and Drive Lines (3)
2 hours lecture - 3 hours laboratory
The hydraulic and mechanical function and repair of automatic transmissions. The disassembly, inspection, reassembly, and testing of three speed conventional transmissions, clutches, universal joints, and differentials.

AT 125 Automotive Machining (3)
6 hours lecture/laboratory
The various testing and machining operations involved in an automotive machine shop. Areas covered include cylinder head service and repair, pin fitting, cylinder boring, milling, align boring, and various other automotive machining and measuring techniques.

AT 130 Automotive Brakes (3)
2 hours lecture-4 hours laboratory
The hydraulic and mechanical function of automotive brake systems. Brake troubleshooting, complete system repair, and overhaul of power, drum, and disc brakes. Preparation for the State Brake License.

AT 135 Front End Alignment and Wheel Service (3)
2 hours lecture-4 hours laboratory
The repair and adjustment of the undercarriage of the automobile. Included are such areas as steering, geometry, turn radius, ball joints, toe track, camber, caster, suspension, bearing service, wheel balance, and tire wear identification. Preparation for the State Lamp License.

AT 145 Auto Emissions, Diagnosis, Drivability, and Repair (3)
6 hours lecture/laboratory
Auto emissions diagnosis and repair using an individual baseline approach and loaded-mode testing equipment to solve emission failures. Includes use of scan tools, digital storage oscilloscopes, and inflight analyzers to logically repair the vehicles.

AT 150 Chassis Restoration and Assembly (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in AT 100*
Note: *May be taken 3 times*
Course covers basic disassembly and documentation of antique automotive chassis and components. Lab activities will focus on correct detailing and reassembly of vintage automobile chassis and related undercarriage elements.

AT 155 Body Restoration and Assembly (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R AT 50*
Note: *May be taken 3 times*
Course covers basic disassembly and documentation of antique automotive bodies and components. Lab activities will focus on correct detailing, restoration and reassembly of vintage automobiles and related elements, using historically authentic materials and techniques.

AT 160 Associated Studies in Automotives (3)
3 hours lecture
Note: *May be taken 4 times*
Applied science and technology as related to the automotive field. Areas covered include metrics, Ohms Law and electron theory, metal alloys and their properties and uses, thermal expansion, gas laws, limits and fits, and friction and torque.

AT 165 Automotive Air Conditioning (2)
1½ hours lecture - 1½ hours laboratory
The principles of operation and servicing of modern automotive air conditioning systems. Both lecture and lab time will be devoted to studying the refrigeration and heating system, ventilation and ducting, and the electrical system. Students will complete and receive their refrigerant license as well as be prepared for ASE certification.

AT 196 Special Problems in Automotives (1, 2, 3)
3, 6, or 9 hours laboratory
Recommended preparation: *Completion of a minimum of 12 units in Automotive Technology (may include 6 concurrent Automotive Technology units)*
Note: *May be taken 4 times*
Special study in an area of interest related to automotives; generally research in nature. The content to be determined by the need of the student under signed contract with the instructor.

AT 197 Topics in Automotive (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in automotive technology. See Class Schedule for the specific topic offered. Course title will designate subject covered.

AT 210 Specialized Automotive Electronics (3)
2 hours lecture - 3 hours laboratory
Recommended preparation: *AT 105 or 110*
Electronic principles as they pertain to the automobile. Identification, diagnosis, repair, and verification of malfunctioning electronic components is the major objective of the course. Computer controls fundamentals and diagnosis of GM systems, 1981-1990.

AT 215 Automotive Emission Control (3)
3 hours lecture-2 hours laboratory
Recommended preparation: *AT 110 and 115*
Auto emission controls as prescribed by Federal Law and California Air Resources Board. Analysis and testing of emission controls will be presented. Study of current laws for state exam preparation.

AT 220 Advanced Automotive Transmissions (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in AT 120*
Advanced specialized training in automatic transmissions currently in use in General Motors, Ford, and Chrysler cars and light trucks.

AT 225 Automotive Engine Rebuilding (3)
2 hours lecture-4 hours laboratory
The complete rebuilding of at least one automobile engine using the machine tools and techniques of industry.

Aviation Sciences (AVIA)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Aviation Operations and Management
- Aircraft Commercial Pilot

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Aviation Operations and Management
- Aircraft Commercial Pilot

PROGRAMS OF STUDY

Aviation Operations and Management

For students interested in the business or piloting aspects of aviation. Transfers to some four year programs in this field.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AVIA 100	Introduction to Aviation Sciences	3
AVIA 105	Basic Pilot Ground School	3
AVIA 120	Aviation Weather	3
BUS 205	Business Writing	3
ECON 101	Principles of Economics (Macro)	3
ECON 102	Principles of Economics (Micro)	3
Elective Courses (Select 15 units minimum)		
ACCT 103 and	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Laboratory	1
AVIA 106	Commercial Pilot Ground School	3
AVIA 107	Instrument Pilot Ground School	3
AVIA 115	Air Traffic Control	3
AVIA 125	Instrument Simulator Lab	1.5
AVIA 145	Glass Cockpits and GPS Navigation	1
AVIA 205	Principles of Aerodynamics	3
AVIA 210	Aviation Safety and Accident Investigation	3
BUS 115	Business Law	3
BUS 155	Marketing	3
BMGT 110	Human Resource Management	3
BMGT 115	Organizational Theory and Design	3
CSIT 105	Computer Concepts and Applictions	3
GEOG 110	Meteorology: Weather and Climate	3
MATH 115	Trigonometry	3
MATH 120	Elementary Statistics	3
PHYS 120	General Physics	4
PHYS 121	General Physics	4
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**33**

Flight training is the sole responsibility of each student and is contracted with an F.A.A. approved flight school at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the student's flight training program.

Aircraft Commercial Pilot

Prepares students for employment as commercial pilots in air taxi and other field related flying operations. Transfers to some four year programs in this field.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AVIA 75	Private Pilot Certification	2
AVIA 80	Instrument Rating Certification	2
AVIA 85	Commercial Pilot Certification	3
AVIA 100	Introduction to Aviation Sciences	3
AVIA 105	Basic Pilot Ground School	3
AVIA 106	Commercial Pilot Ground School	3
AVIA 107	Instrument Pilot Ground School	3
AVIA 110	Basic Pilot Flight Procedures	2
AVIA 120	Aviation Weather	3
AVIA 125	Instrument Simulator Laboratory	1.5
AVIA 145	Glass Cockpits and GPS Navigation	1
Elective Courses (Select 9 units minimum)		
AVIA 115	Air Traffic Control	3
AVIA 205	Principles of Aerodynamics	3
AVIA 210	Aviation Safety and Accident Investigation	3
AVIA 215	Complex Aircraft Systems and Propulsion	3
GEOG 110	Meteorology: Weather and Climate	3
TOTAL UNITS		**35.5**

Flight training is the sole responsibility of each student and is contracted with an F.A.A. approved flight school at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the student's flight training program.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

AVIA 75 Private Pilot Certification (2)
4 hours lecture/laboratory
Note: *Pass/No Pass grading only*
Upon presentation of a Private Pilot Certificate, the student will be given credit (no grade). Flight training is to be completed off campus with an F.A.A. certified flight instructor of the student's choice and at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the flight training obtained from private instructors. The student should register for this course in the semester during which the training is to be completed.

AVIA 80 Instrument Rating Certification (2)
4 hours lecture/laboratory
Note: *Pass/No Pass grading only*
Upon presentation of an Instrument Rating, the student will be given credit (no grade). Flight training is to be completed off campus with an F.A.A. certified flight instructor of the student's choice and at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the flight training obtained from private instructors. The student should register for this course in the semester during which the training is to be completed.

AVIA 85 Commercial Pilot Certification (3)
6 hours lecture/laboratory
Note: *Pass/No Pass grading only*
Upon presentation of a Commercial Pilot Certificate, the student will be given credit (no grade). Flight training is to be completed off campus with an F.A.A. certified flight instructor of the student's choice and at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the flight training obtained from private instructors. The student should register for this course in the semester during which the training is to be completed.

AVIA 100 Introduction to Aviation Sciences (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of the aerospace field including the functions and operations of various federal and state regulating aviation agencies and airport based companies such as air carrier, general aviation, aviation maintenance, flight schools, and other major occupational and supportive areas.

AVIA 105 Basic Pilot Ground School (3)
3 hours lecture
Transfer acceptability: *CSU*
A study of Federal Aviation Regulations, flight data, aerodynamics, weather and navigation, radio communications, aircraft and engine operation, flight instruments, and aircraft performance. Prepares the student for the Federal Aviation Administration's Private Pilot written examination.

AVIA 106 Commercial Pilot Ground School (3)
3 hours lecture
Prerequisite: *Private Pilot Certificate or AVIA 105 with concurrent or prior flight training*
Transfer acceptability: *CSU*
A comprehensive study of aircraft performance, Federal Aviation Regulations, navigation, flight charts and graphs, radio navigation and communications, meteorology, emergency procedures, aerodynamics, flight instruments, and multi engine procedure. Prepares the student for the Federal Aviation Administration's Commercial Pilot written examination.

AVIA 107 Instrument Pilot Ground School (3)
3 hours lecture
Prerequisite: *Private Pilot Certificate or AVIA 105 with concurrent or prior flight training*
Transfer acceptability: *CSU*
The rules and regulations for instrument flight, interpretation of flight instruments, air navigation, meteorology, instrument flight techniques, air traffic control, and flight planning. Prepares the student for the Federal Aviation Administration's Instrument written examination.

AVIA 110 Basic Pilot Flight Procedures (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in AVIA 105, or concurrent enrollment in AVIA 105*
Transfer acceptability: *CSU*
A classroom study of procedures required for the private pilot practical test. Includes discussion of cross country flight planning, radio navigation, communication procedures, controlled airspace, and airport operations.

AVIA 115 Air Traffic Control (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in AVIA 105*
Transfer acceptability: *CSU*
The national airspace system and the handling of air traffic within this area. Emphasis is placed on the operation of Federal Aviation Administration controlling agencies.

AVIA 120 Aviation Weather (3)
3 hours lecture
Transfer acceptability: *CSU*
Basic principles relating to weather with particular emphasis placed upon the relationship of weather to aviation. Practical instruction is given in the use and interpretation of weather reports, forecasts, and charts.

AVIA 125 Instrument Simulator Laboratory (1.5)
1 hour lecture-2 hours laboratory
Prerequisite: *Private Pilot Certificate*
Note: *May be taken 3 times for increased proficiency by utilizing more advanced lesson plans and taped lesson plans in the lab.*
Transfer acceptability: *CSU*
Instrument flight including VOR navigation, holding patterns, and ILS, LOC, NDB, and VOR approaches through use of a ground trainer.

AVIA 145 Glass Cockpits and GPS Navigation (1)
1 hour lecture
Transfer acceptability: *CSU*
Prerequisite: *A minimum grade of 'C' in AVIA 105 or Private Pilot Certificate*
A practical examination of glass cockpit technology and global positioning system navigation in aviation.

AVIA 197 Aviation Sciences Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times.*
Transfer acceptability: *CSU*
Topics in Aviation Sciences. See class schedule for specific topic covered. Course title will designate subject covered.

AVIA 205 Principles of Aerodynamics (3)
3 hours lecture
Transfer acceptability: *CSU*
Introduction to the theory of flight; applications of the basic laws of physics to the principles of flight. Aircraft design is considered with respect to airfoils, wings, viscous effects, propellers, and aircraft performance.

AVIA 210 Aviation Safety and Accident Investigation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in AVIA 105 or Private Pilot Certificate*
Transfer acceptability: *CSU*
Accident prevention principles through a study of recent mishaps. Pilot physical and psychological factors and their role in mishaps. A study of crash survival and post crash survival techniques. Fundamentals of mishap investigation and reporting.

AVIA 215 Complex Aircraft Systems and Propulsion (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in AVIA 105 or Private Pilot Certificate*
Transfer acceptability: *CSU*
Turboprop and turbojet engines and their operation. Electrical, pressurization, hydraulic, and fuel systems will be examined.

AVIA 295 Directed Study in Aviation Sciences (1, 2, 3)
3, 6, or 9 hours field work
Prerequisite: *A minimum grade of 'C' in AVIA 100 and approval of project proposal*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Individual study in field or library within the field of air transportation.

Biology (BIOL)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Biology - General
- Biology - Preprofessional

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Biology - General
- Biology - Preprofessional

PROGRAMS OF STUDY

Biology – General

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BIOL 200	Foundations of Biology I	5
BIOL 201	Foundations of Biology II	5
ZOO 100 or	General Zoology	
ZOO 101/101L	Animal Kingdom	4
Group One (Select 3-4 units)		
BOT 101/101L	General Botany	4
BOT 110	Botany of Spring Wildflowers	4
BOT 115	Plants and People	3
Group Two (Select 4-5 units)		
BIOL 114/114L	Ecosystem Biology	4.5-5
BIOL 118/118L	General Ecology	4
BIOL 130 or	Marine Biology	
BIOL 131/131L	Marine Biology	4
ZOO 115 or	Natural History of Animal Life	
ZOO 116/116L	Natural History of Animal Life	4
Group Three (Select 9-11 units)		
Biology	Any course not used above (100 and up)	
Botany	Any course not used above	
Microbiology	Any course	
Zoology	Any course not used above	
MINIMUM TOTAL UNITS		**32**

Recommended Electives: BIOL 215; CHEM 100, 110, 110L, 115, 115L; MATH 110, 115, 135; CSIT 105

Biology-Preprofessional

Provides intensive lower division preparation for pursuing advanced studies in biological science, premedical, predental, or preveterinarian programs leading towards a Bachelor's degree and beyond.

Students are advised to consult catalogs of the institution to which they plan to apply to determine special or additional requirements, or see a Palomar College Counselor.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BIOL 200	Foundations of Biology I	5
BIOL 201	Foundations of Biology II	5
CHEM 110/110L	General Chemistry and Laboratory	5
CHEM 115/115L	General Chemistry and Laboratory	5
CHEM 220	Organic Chemistry	5
CHEM 221	Organic Chemistry	5
MATH 140	Calculus/Analytic Geometry, First Course	5
MATH 141	Calculus/Analytic Geometry, Second Course	4
TOTAL UNITS		**39**

Recommended Electives: BIOL 215; MATH 205; PHYS 230, 231, 232; ZOO 203

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

*UC credit limitations –
- BIOL 100, 101/101L, 102 and 200 combined: maximum credit, 5 units
- No credit for BIOL 100 and 101/101L if taken after 200 or 201
- No credit for BIOL 102 if taken after 100, 101/101L or 200 or 201
- BIOL 105, 106/106L and ZOO 145/145L combined: maximum credit, 4 units
- BIOL 114/114L, 118/118L combined: maximum credit, 4 units
- BIOL 130 and 131/131L combined: maximum credit 4 units
- BIOL 185, FCS 165, FCS 185, and HE 165 combined: maximum credit, one course
- BIOL 215, MATH 120, SOC 205, and PSYC 205 combined: maximum credit, one course

BIOL 45A Field Studies in Natural History (.5,1,2,3)
1, 2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times; designed for families. Recommended for children between the ages of 8-14. Parent or guardian must accompany children. See class schedule or contact the Life Sciences Department for locality to be visited, and more information. Fee charged.*
Non-degree Applicable
Field studies of plant and animal species encountered in various habitats, including systematics and major structural and functional characteristics of the taxonomic groups to which these species belong, and emphasizing each species particular adaptations that favor its survival in its natural habitat.

BIOL 47 Biology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Non-degree Applicable
Topics in Biology. See class schedule for specific topic covered. Course title will designate subject covered.

BIOL 100 General Biology (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in BIOL 101 or 101L, BIOL 102, BIOL 105, BIOL 106/106L.*
Transfer acceptability: *CSU; UC**
Basic principles of general biology as they relate to the cellular, organismic, and population levels of organization. Includes cell ultrastructure and function, energy transfer, reproduction, genetics, evolution, diversity of organisms, and ecology. Not recommended for students interested in Biology, Zoology, Botany, Premed, or related majors (see Biology 200 and Biology 201).

BIOL 101 General Biology (Lecture) (3)
3 hours lecture
Note: *Not open to students with prior credit in BIOL 100*
Transfer acceptability: *CSU; UC**
Basic principles of general biology as they relate to the cellular, organismic, and population levels of organization. Includes cell ultrastructure and function, energy transfer, reproduction, genetics, evolution, diversity of organisms, and ecology.

BIOL 101L General Biology (Laboratory) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 101 or 114, or concurrent enrollment in BIOL 101 or 114*
Note: *Not open to students with prior credit in BIOL 100, BIOL 102, BIOL 105, BIOL 106/106L.*
Transfer acceptability: *CSU; UC**
Laboratory exercises in cell structure and function, energy transfer, reproduction, genetics, and ecology. This is a general education course intended for non-science majors.

BIOL 102 Molecules and Cells (3)
2 hours lecture - 4 hours laboratory
Recommended preparation: *MATH 50*
Transfer acceptability: *CSU; UC**
The basic principles of biological systems including the chemistry of life, cell structure and function, energy transfer, cell division, classical and molecular genetics.

BIOL 105 Biology with a Human Emphasis (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in BIOL 100, BIOL 101/101L, BIOL 102, BIOL 106/106L.*
Transfer acceptability: *CSU; UC**
Principles of cellular, organismal and population biology as exemplified by, and relating to, the human organism. Laboratory includes study of cells, tissues, and mammalian organ systems.

BIOL 106 Biology with a Human Emphasis (Lecture) (3)
3 hours lecture
Note: *Not open to students with prior credit in BIOL 100, BIOL 101/101L, BIOL 102, BIOL 105*
Transfer acceptability: *CSU; UC*
Principles of cellular, organismal and population biology as exemplified by, and relating to, the human organism.

BIOL 106L Biology with a Human Emphasis (Laboratory) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 106, or concurrent enrollment in BIOL 106*
Note: *Not open to students with prior credit in BIOL 100, BIOL 101/101L, BIOL 102, BIOL 105*
Transfer acceptability: *CSU; UC*
Laboratory experiences designed to demonstrate cellular structure and function as they relate to the human organism. An examination of major body systems is included.

BIOL 110 Human Genetics (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Principles of human inheritance including gene transmission, genetic diseases, pedigree analysis, molecular genetics, immunogenetics, and population genetics; relationships to other fields of study will be emphasized.

BIOL 114 Ecosystem Biology (Lecture) (3)
3 hours lecture
Note: *See also BIOL 114L*
Transfer acceptability: *CSU; UC**
Basic principles of general biology as they relate to exemplary ecosystems.

BIOL 114L Ecosystem Biology (Laboratory) (1.5,2)
4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 101 or 114, or concurrent enrollment in BIOL 101 or 114*
Note: *A fee is required, and additional costs may be incurred. Contact the Life Sciences Department or see the schedule of classes for specific information about the laboratory field sites, dates and fees.*
Transfer acceptability: *CSU; UC**
Laboratory and field experiences to illustrate and observe biology as it relates to exemplary ecosystems. Typical field sites include the Greater Yellowstone ecosystem, Central America, or the Sea of Cortez.

BIOL 118 General Ecology (Lecture) (3)
3 hours lecture
Transfer acceptability: *CSU; UC**
Basic concepts of evolution, population ecology, community ecology, and ecosystem ecology.

BIOL 118L General Ecology (Laboratory) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 118, or concurrent enrollment in BIOL 118*
Transfer acceptability: *CSU; UC**
Provides hands-on experiences with ecological concepts, methods, and problem-solving techniques by using the plants and animals of local communities in their natural settings. The majority of laboratory sessions will be devoted to off-campus field studies.

BIOL 130 Marine Biology (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in BIOL 131 or 131L*
Transfer acceptability: *CSU; UC**
An introduction to marine biology with an emphasis on the adaptations, classification, and ecology of marine organisms as well as current issues in marine biology. A survey of local marine organisms and habitats. Participation on field trips as scheduled is required.

BIOL 131 Marine Biology (Lecture) (3)
3 hours lecture
Note: *Not open to students with prior credit in BIOL 130*
Transfer acceptability: *CSU; UC**
An introduction to marine biology with an emphasis on the adaptations, classification, and ecology of marine organisms as well as current issues in marine biology.

BIOL 131L Marine Biology (Laboratory) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 131, or concurrent enrollment in BIOL 131*
Note: *Not open to students with prior credit in BIOL 130*
Transfer acceptability: *CSU; UC**
A survey of local marine organisms and local marine habitats. A field trip oriented course; participation on field trips as scheduled is required.

BIOL 135 Biology of Marine Mammals (3)
3 hours lecture
Note: *Cross listed as ZOO 135*
Transfer acceptability: *CSU; UC*
The fundamentals of marine mammal biology are explored. Topics include comparative anatomy, evolution, cladistics, mammalian physiology, ecology and zoogeography, behavior and conservation as they apply to the study of marine mammals.

BIOL 185 Science of Human Nutrition (3)
3 hours lecture
Note: *Cross listed as FCS 185*
Transfer acceptability: *CSU; UC*
Science of food, nutrients, and other substances therein; processes by which the organism ingests, digests, absorbs, transports, utilizes, and excretes food substances. Emphasis on biological, chemical, and physiological implications to human nutrition.

BIOL 195A Field Studies in Natural History (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Field studies of plant and animal species encountered in various habitats, including systematics and major structural and functional characteristics of the taxonomic groups to which these species belong, and emphasizing each species' particular adaptations that favor its survival in its natural habitat. See Class Schedule for locality to be visited.

BIOL 195B Field Studies in Ecology (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Field study of the fauna and biota of selected geographic regions, with emphasis placed upon field identification, observation and interpretation of behavioral and ecological interrelationships of living things to their environment and to one another. See Class Schedule for locality to be visited.

BIOL 195C Field Studies in Marine Biology (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Field study of the fauna and biota of marine intertidal and subtidal habitats of selected geographic regions, with emphasis placed upon field identification, observation and interpretation of behavioral and ecological interrelationships of living things to their environment and to one another. See Class Schedule for locality to be visited.

BIOL 195D Field Studies in Island Ecology (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU*
Field study of the unique ecology of islands, emphasizing systematics, speciation, observation and interpretation of the interactions of indigenous and exotic biota, and how the biotic communities of the study island(s) have adapted to the special limitations of their confined environments. See Class Schedule for locality to be visited.

BIOL 195E Field Studies in Tropical Biology (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU*
Field study in the fauna and flora of selected tropical regions, with emphasis placed upon field identification, observation and interpretation of behavioral and ecological interrelationships of living things to their environment and to one another. See Class Schedule for locality to be visited.

BIOL 197 Biology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Biology. See Class Schedule for specific topic offered. Course title will designate subject covered.

BIOL 200 Foundations of Biology I (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 110, or concurrent enrollment in CHEM 110*
Transfer acceptability: *CSU; UC**
Molecular and cellular biology. Transmission, molecular, and population genetics. Aspects of reproduction of prokaryotes and eukaryotes. Principles of evolution and systematics. Recommended for biology majors.

BIOL 201 Foundations of Biology II (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 200, or concurrent enrollment in BIOL 200*
Transfer acceptability: *CSU; UC**
An examination of the diversity of life, as seen in the Eubacteria, Archaea, and Eukarya, emphasizing the integration of structure and function, development, life histories, phylogenetics, animal behavior, and ecology. Recommended for biology majors.

BIOL 215 Introduction to Biostatistics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 110 and BIOL 201*
Note: *This course does not qualify for mathematics credit*
Transfer acceptability: *CSU; UC*; max credit for one course: BIOL 215, PSYC 205, or SOC 205 and MATH 120, one course*
An introductory course covering the principles and practice of experimental design and statistical analysis of biological data. Topics include hypothesis formation, development of experimental design and execution, data analysis and interpretation with application to biological and health sciences. Includes extensive use of computer software for statistical simulation and analysis.

BIOL 295 Directed Study in Life Science (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: May be taken 4 times
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study for students who have demonstrated skills and/or proficiencies in biology subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Botany (BOT)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

COURSE OFFERINGS

BOT 100 General Botany (4)
3 hours lecture 3 hours laboratory
Note: *Not open to students with prior credit in BOT 101 or 101L.*
Transfer acceptability: *CSU; UC – BOT 100 and 101/101L combined: maximum credit, 4 units*
The diversity, structure, and function of major plant groups including cellular metabolism, soil water relationships, classification, genetics, life cycle patterns, growth, and the basic ecological and evolutionary concepts of botany. This is a general education course intended for non-science majors.

BOT 101 General Botany Lecture (3)
3 hours lecture
Note: *Not open to students with prior credit in BOT 100*
Transfer acceptability: *CSU; UC – BOT 100 and 101/101L combined: maximum credit, 4 units*
The diversity, structure, and function of major plant groups including cellular metabolism, soil water relationships, classification, genetics, life cycle patterns, growth, and the basic ecological and evolutionary concepts of botany.

BOT 101L General Botany Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in BOT 101, or concurrent enrollment in BOT 101*
Note: *Not open to students with prior credit in BOT 100*
Transfer acceptability: *CSU; UC – BOT 100 and 101/101L combined: maximum credit, 4 units*
A laboratory course in plant biology. Special emphasis on the structure, growth, function, genetics, and life cycles of major plant groups. This is a general education course intended for non-science majors.

BOT 110 Botany of Spring Wildflowers (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU; UC*
The identification, distribution, and interrelationships of plants in their natural environment; ecological principles; and representative plant communities. Special emphasis will be given to the study of plant families and the use of taxonomic keys.

BOT 115 Plants and People (3)
3 hours lecture
Transfer acceptability: *CSU; UC – No credit if taken after 100 or 101/101L*
The role of plants in the world ecosystem, including past and present cultural and economic uses for food, medicine, and industrial products. Principles of plant structure and function, with selected topics on plant diversity, plant adaptations, and the interrelationships between plants and people will also be discussed.

BOT 195 Field Study of Native Plants (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Extended field study of the flora of selected geographical areas including habitats, adaptations, and identification of native and naturalized species. See Class Schedule for locality to be visited. Fee charged.

BOT 197 Botany Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus. Topics in Botany. See Class Schedule for specific topic offered. Course title will designate subject covered.*

Business (BUS)

See also Accounting, Business Management, Insurance, International Business, Legal Studies, Office Information Systems, Paralegal Studies, Real Estate

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Advertising, Marketing, and Merchandising
- Business Administration
- Business - General
- Internet - Emphasis in Business Education

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Advertising, Marketing, and Merchandising
- Internet - Emphasis in Business Education
- Retail Management

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- E-Business
- Entrepreneurship
- Salesperson - Retail

PROGRAMS OF STUDY

Advertising, Marketing, and Merchandising

This program is designed to provide a general academic background of course-work pertinent to entry-level employment and/or upper division education in the field of product or service distribution.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103 and	Financial Accounting	4
ACCT 104 or	Accounting Spreadsheet Lab	1
BUS 105 and	Bookkeeping Fundamentals	4
BUS 105L	Bookkeeping Electronic Spreadsheet Lab	.5
BUS 110	Business Mathematics	3
BUS 115	Business Law	3
BUS 140	Selling for Business	3
BUS 145/		
FASH 125	Retailing/Promotion	3
BUS 150	Advertising	3
BUS 155	Marketing	3
Electives (Select 10-11 units)		
BUS 100	Introduction to Business	3
BUS 125	Business English	3
BUS/FCS 136	Personal Finance	3
BUS 157	E-Commerce	3
BUS 158	Marketing Internship	3
BUS 170	Word for Business Basic	1
BUS 205	Business Writing	3
BMGT 110	Human Resource Management	3
BMGT 105	Small Business Management	3
CSIT 105 or	Computer Concepts and Applications	
CSIT 120/		
R CSIS 120	Computer Applications	3
MATH 120	Elementary Statistics	3
OIS 101	Beginning Keyboarding	2
SPCH 100	Oral Communication	3
TOTAL UNITS		**32.5 - 34**

Recommended Elective: BUS 171

Business Administration

Provides a program to prepare the student for transfer. Since requirements vary at each four-year school, transfer students must consult with a counselor, or a Business Administration Department advisor, to develop a program for the specific school they wish to attend.

A.A. DEGREE MAJOR

Program Requirements		Units
ACCT 103	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Lab	1
ACCT 108	Managerial Accounting	4
BUS 115 or	Business Law	
BUS 117	Legal Environment of Business	3
BUS 175	Excel Basic	1
BUS 205	Business Writing	3
CSIT 105 or	Computer Concepts and Applications	
CSIT120/		
R CSIS 120	Computer Applications	3
ECON 100 or	Basic Economics	
ECON 101 and	Principles of Economics (Macro)	
ECON 102	Principles of Economics (Micro)	3,6
MATH 120	Elementary Statistics	3
MATH 130	Calculus for the Social Sciences	4
TOTAL UNITS		**29 - 32**

Business-General

This program is primarily designed for students who are seeking an overview of business educational opportunities prior to a career commitment in a particular area.

A.A. DEGREE MAJOR

Program Requirements		Units
ACCT 103 and	Financial Accounting	4
ACCT 104 or	Accounting Spreadsheet Lab	1
BUS 105 and	Bookkeeping Fundamentals	4
BUS 105L	Bookkeeping Electronic Spreadsheet Lab	.5
BUS 100	Introduction to Business	3
BUS 110	Business Mathematics	3
BUS 115	Business Law	3
BUS 125	Business English	3
BUS 155	Marketing	3
BMGT 101 or	Introduction to Management	
BMGT 105	Small Business Management	3
CSIT 105 or	Computer Concepts and Applications	
CSIT 120/		
R CSIS 120	Computer Applications	3
Electives (Select 6-9 units)		
ACCT 108	Managerial Accounting	4
ACCT 115	Sales Tax, Payroll Taxes, and Employee Benefits	2
BUS 116	Business Law	3
BUS 130	Intro Purchasing and Supply Chain Management	3
BUS 140	Selling for Business	3
BUS 145/		
FASH 125	Retailing/Promotion	3
BUS 150	Advertising	3
BUS 157	E-Commerce	3
BUS 158	Marketing Internship	3
BUS 205	Business Writing	3
OIS 101* or	Beginning Keyboarding	2
OIS 102	Intermediate Keyboarding	2
TOTAL UNITS		**31.5 - 35**

* Not required if acceptable level skill has been completed in high school. Students excused from OIS 101 must substitute an elective.

Recommended Electives: BUS 170, 171; PSYC 100; ECON 101

E-Business

Provides a program, which prepares students in the basic skills necessary to use e-commerce in an ever changing and competitive entrepreneurial market.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
BMGT 105	Small Business Management	3
BUS 155	Marketing	3
BUS 157	E-Commerce	3
GCMW 217	Online Store Design I	4
Electives (Select 3 units minimum)		
BUS 138	Business Ethics	2
BUS 142	Customer Service	1
BUS 180	Access for Business	1
BUS 190	Internet for Business	1
GCMW 218	Online Store Design II	4
GCIP/		
GCMW 290	Copyright for Graphic Designers and Web Developers	1
GCIP/		
GCMW 291	Contracts for Graphic Designers and Web Developers	1
GCIP/		
GCMW 292	Legal Issues for Graphic Designers and Web Developers	3
TOTAL UNITS		**16**

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Entrepreneurship

Provides a program to prepare the student for owning and managing a business.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
BMGT 105	Small Business Management	3
BUS 105	Bookkeeping Fundamentals	4
BUS 105L	Bookkeeping Electronic Spreadsheet Lab	.5
BUS 155	Marketing	3
BUS 157	E-Commerce	3
BUS 170	Word for Business – Basic	1
BUS 175	Excel Basic	1
Electives (Select 2 units)		
BUS 138	Business Ethics	2
BUS 142	Customer Service	1
BUS 171	Word for Business – Advanced	1
BUS 180	Access for Business	1
BUS 185	PowerPoint for Business	1
BUS 190	Internet for Business	1
TOTAL UNITS		**17.5**

Internet

As the vast web of global and local information networks grow, several skills and forms of literacy are becoming essential for anyone who wants to obtain the full benefits of the Communications Age. An individual's ability to capitalize on the opportunities offered by interactive communications requires mastery of these information and communication proveniences:

- **Navigational skills** - The ability to move smoothly among arrays of autonomous and globally interconnected information, contacts, forums, and discussion groups in order to locate and connect to information and expertise from relevant sources.
- **Information literacy** - An understanding of which information is most useful, relevant, and reliable, as well as the ability to analyze, distill, integrate, compose, and classify information to create knowledge.
- **Distribution skills** - Frameworks for rethinking methods of packaging, presenting, providing access, and disseminating information and knowledge in this new medium.
- **Communications literacy** - Integrating new forms of information, knowledge, and message development into evolving patterns of organizational and interpersonal communication.

This certificate offers preparation skills for the above areas of emphasis involving the Internet.

Emphasis in Business Education

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BMGT 105	Small Business Management	3
BUS 140	Selling for Business	3
BUS 150	Advertising	3
BUS 155	Marketing	3
BUS 157	E-Commerce	3
BUS 170	Word for Business – Basic	1
BUS 171	Word for Business – Advanced	1
CSWB 110/ R CSIS 110	Web Site Development with XHTML	3
GCMW/ R GCMW 102 or	Web Page Layout I	4
GCMW 102A and GCMW 102B	Web Page Layout IA Web Page Layout IB	2 2
LT 154	Information for Life Long Learning	3
TOTAL UNITS		**27**

Emphasis in Graphic Communication

See Graphic Communication - Multimedia and Web

Retail Management

A comprehensive program designed to prepare current and future retail employees for the fast paced challenges in a competitive retail environment. This certificate has been endorsed by the Western Association of Food Chains and its member companies.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Lab	1
BMGT 101	Introduction to Management	3
BMGT 110	Human Resource Management	3
BMGT 130	Management/Leadership Issues	3
BUS 110	Business Mathematics	3
BUS 145/ FASH 125	Retailing/Promotion	3
BUS 155	Marketing	3
BUS 205	Business Writing	3
OIS 120	Intro to Office Info Systems	3
SPCH 115	Interpersonal Communication	3
TOTAL UNITS		**32**

Salesperson - Retail

This program is designed to prepare students for entry into the retail sales force. Students will gain a working knowledge of sales techniques and customer service principles within the marketing environment. Emphasis will be placed on a consultative approach toward encouraging sales.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
(Select 3 classes totaling 9 units)		
BUS 140	Selling for Business	3
BUS 145/ FASH 125	Retailing/Promotion	3
BUS 150	Advertising	3
BUS 155	Marketing	3
Elective Courses (Select 6 units)		
BUS 100	Introduction to Business	3
BUS 110	Business Mathematics	3
BUS 138	Business Ethics	2
BUS 142	Customer Service	1
TOTAL UNITS		**15**

COURSE OFFERINGS

BUS 100 Introduction to Business (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Preparation for survival within the global economy. Topics such as small business management, managerial theory, international business, and marketing represent several important class components. Includes strong career guidance component.

BUS 105 Bookkeeping Fundamentals (4)
4 hours lecture
Corequisite: *BUS 105L*
Note: *Not open to students who have completed ACCT 103*
Transfer acceptability: *CSU*
Comprehensive coverage of the basic bookkeeping cycle, including journalizing, posting, worksheet and financial statements; payroll records; petty cash systems; reconciliation of bank statements. Electronic spreadsheeting concepts as they pertain to accounting/bookkeeping are also covered. Designed to give practical preparation for bookkeeping positions.

BUS 105L Bookkeeping Electronic Spreadsheet Lab (.5)
1½ hours laboratory
Corequisite: *BUS 105*
Transfer acceptability: *CSU*
This lab provides students with the skills necessary to apply bookkeeping and electronic spreadsheet theory in developing solutions to bookkeeping problems, and to create and generate various accounting reports and financial statements. The bookkeeping exercises completed throughout the semester will closely parallel the problems completed in the BUS 105 Bookkeeping Fundamentals course.

BUS 110 Business Mathematics (3)
3 hours lecture
Transfer acceptability: *CSU*
Theory and practical application to business situations of computing trade and cash discounts, commissions, payrolls, property taxes, interest, bank discount, compound interest, present value, annuities, sinking funds, insurance, consumer credit, and depreciation.

BUS 115 Business Law (3)
3 hours lecture
Transfer acceptability: *CSU; UC – BUS 115, 116, 117, LS 121, PLS 121 combined: maximum credit, one course*
Law in its relationships to business contracts, agency, bailment, and sales.

BUS 116 Business Law (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in BUS 115*
Transfer acceptability: *CSU; UC – BUS 115, 116, 117, LS 121, PLS 121 combined: maximum credit, one course*
Law in its relationships to negotiable instruments, partnerships, corporations, real property, insurance, wills and estates, and bankruptcy.

BUS 117 Legal Environment of Business (3)
3 hours lecture
Transfer acceptability: *CSU; UC – BUS 115, 116, 117, LS 121, PLS 121 combined: maximum credit, one course*
Business legal systems, sources of law, social and ethical influences, judicial and administrative systems, contracts, torts, bankruptcy, agency, business organizations, securities regulation, regulation of property, and protection of intellectual property interests.

BUS 125 Business English (3)
3 hours lecture
Transfer acceptability: *CSU*
Practical approaches to solving the commonly made errors in English language usage, as specifically applied to business-oriented material. Coverage includes vocabulary, spelling, grammar, idioms, sentence structure, and punctuation.

BUS 130 Introduction to Purchasing and Supply Chain Management (3)
3 hours lecture
Transfer acceptability: *CSU*
Basic principles in purchasing and supply chain management, relationship management, application of processes, inventory management, source selection, obtaining and evaluating offers, buying techniques, contract writing and legal aspects.

BUS 136 Personal Finance (3)
3 hours lecture
Note: *Cross listed as FCS 136*
Transfer acceptability: *CSU*
A study of the effective management of personal and family resources. Budgeting, buying of goods and services, banking, credit, taxation, investing, insurance, home ownership, estate planning, and consumer protection.

BUS 138 Business Ethics (2)
2 hours lecture
Transfer acceptability: *CSU*
This course provides a systems approach for making business decisions that are responsible, practical, and defendable. It examines the gray zone of ethical quandaries and provides a methodical process for selecting alternative solutions that are ethical and good for business.

BUS 140 Selling for Business (3)
3 hours lecture
Transfer acceptability: *CSU*
A study of the working principles of selling in a business environment including prospecting for customers, understanding buying behavior, developing a sales presentation, closing the sale while delivering the best customer service, and maintaining professional relationships.

BUS 142 Customer Service (1)
1 hour lecture
Transfer acceptability: *CSU*
This course covers the entire spectrum of customer service, which includes anything a business does for a customer in order to enhance the customer experience. Central focus of the course is recognition that it is much more costly to attract new customers than it is to maintain current customers.

BUS 145 Retailing/Promotion (3)
3 hours lecture
Note: *Cross listed as FASH 125*
Transfer acceptability: *CSU*
Principles and techniques of retailing, promotion, and advertising pertinent to retail policies and procedures. Includes psychological aspect of retailing. Working foundation for those looking forward to employment in this area.

BUS 150 Advertising (3)
3 hours lecture
Transfer acceptability: *CSU*
A study of advertising media and methods as sales promotional tools in marketing activities including, but not limited to, such areas as the production and evaluation of advertisements and advertising media.

BUS 155 Marketing (3)
3 hours lecture
Transfer acceptability: *CSU*
A study of the role and functions of marketing in the wholesale and retail distribution of industrial and consumer goods and services, to familiarize students with marketing policies and practices, integration of marketing activities, and pertinent government regulations.

BUS 157 E-Commerce (3)
3 hours lecture
Recommended preparation: *BUS 190*
Transfer acceptability: *CSU*
Addresses the methods by which a business can harness the powers of the Web to sell its product. Examines planning an e-business, web site creation and hosting, e-commerce stores, electronic payment issues and security, marketing an e-business, copyright, and privacy policy issues.

BUS 158 Marketing Internship (3)
3 hours lecture
Note: *Course not offered every semester*
Transfer acceptability: *CSU*
A group process whereby students form their own promotions company. Students will work with a local business owner for the purpose of creating and implementing a promotional event to be held on campus, at the client's place of business, or at another location, as identified through the research component of their plan. Students will engage in activities which include, but are not limited to, market research, advertising, public relations, and budgeting.

BUS 165 Keyboarding (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Touch-typing of alphabetic, numeric, and symbol keys on a computer keyboard; development of speed and accuracy on straight copy; introduction to basic business document formatting.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

BUS 170 Word for Business – Basic (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Recommended preparation: *A keyboarding speed of 20 net words a minute*
Note: *May be open entry/open exit; may be taken 4 times with different subject matter; maximum of 4 completions in any combination of BUS 170, BUS 171; This course cannot be used to satisfy the Office Information Systems A.A. Degree/Certificates.*
Transfer acceptability: *CSU*
Hands on application with Microsoft Word. Students will create, save, close, open, edit, and print a variety of business documents utilizing the following software features: finding and replacing text, moving and copying text; spell, thesaurus, grammar, and auto text; character, paragraph, page, and document formatting; envelopes; tables; columns; borders and special characters; footnotes and endnotes; draw objects and graphics; hyperlinks; styles and templates; outlines; smart tags; and headers/footers. Class Schedule will designate software package covered.

BUS 171 Word for Business – Advanced (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Recommended preparation: *A minimum grade of 'C' in BUS 170*
Note: *May be open entry/open exit; may be taken 4 times with different subject matter; maximum of 4 completions in any combination of BUS 170, BUS 171; This course cannot be used to satisfy the Office Information Systems A.A. Degree/Certificates.*
Transfer acceptability: *CSU*
Refinement of basic word processing skills and practice of the more sophisticated software features of merge; labels; fields; index and table of contents; macros; master and subdocuments; customizing Word; on-screen forms; charts; bookmarks and cross-referencing; creating and editing Word web pages; comparing and merging documents; linking and embedding objects; and tracking changes. In addition, more advanced printing, file management, and integration of related software will be covered. The Class Schedule will designate software version covered.

BUS 175 Excel Basic (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Recommended preparation: *BUS 110*
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Introduction to a currently used computer spreadsheet application program. Concepts include defining, designing and navigating spreadsheets; creating, editing, formatting, and printing spreadsheets; working with formulas and functions; and working with charts and graphics. A variety of spreadsheets will be created and edited within practical applications designed for the business environment. Class Schedule will designate software package covered.

BUS 176 Excel Intermediate (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Recommended preparation: *A minimum grade of 'C' in BUS 175 or Equivalent*
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Development of intermediate spreadsheet skills to manipulate worksheet content using a current computer spreadsheet application program. Intermediate concepts include working with lists, filtering, conditional formatting, pivot tables/charts, worksheet groups, workbook templates, lookup functions, auditing tools, document sharing features, macro basics, and publishing to a web page. Concepts are introduced using practical applications designed for the business environment. Class schedule will designate software package covered.

BUS 177 Excel Advanced (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Recommended preparation: *A minimum grade of 'C' in BUS 176 or Equivalent*
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Development of advanced skills using a current computer spreadsheet application program. Advanced concepts and skills include performing complex analyses using data tables, arrays, scenarios, goal seek and problem-solving tools, and application add-ins; importing data from external sources including text, database, schema, XML, and web files and real-time sources; defining queries; and, writing and executing macros and sub-routines. Concepts and software features are introduced applying practical applications designed for the business environment. Class schedule will designate software package covered.

BUS 180 Access for Business (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Introduction to a currently used computer database program. Skills include planning, designing, and using a database; tables; forms and sub forms; reports; queries; and relationships within practical applications designed for the business environment. Class Schedule will designate software package covered.

BUS 185 PowerPoint for Business (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Introduction to a currently used computer presentations program to produce effective presentations using overheads, 35mm photographic slides, or on-screen slides. Skills include defining and designing presentations; preparing slides using the slide, slide sorter, outline, notes page, and slide show views; formatting and animating the presentation; and applying templates within practical applications applied to the business environment. Class Schedule will designate software package covered.

BUS 186 Microsoft Publisher (1)
2 hours lecture/laboratory
Recommended preparation: *R CSIS 127 and R CSIS 170 or CSIT 130, or BUS 170 or OIS 136.1*
Note: *May be open entry/open exit; cross listed as R CSIS 130; may be taken 4 times*
Transfer acceptability: *CSU*
Hands-on applications of Microsoft Publisher, a comprehensive software package that combines text, graphics, illustrations, and photographs to produce typeset quality documents for local printer output or for commercial printing. Includes: newsletters; brochures; flyers; web pages; business cards; letterheads and envelopes; advertising and marketing materials; and greeting cards; PDF and web file formats; and printing options.

BUS 187 Project for Business (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Note: *May be open entry/open exit; may be taken 4 times with different subject matter*
Transfer acceptability: *CSU*
Hands-on application with Microsoft Project, a comprehensive software package that includes the processes of initiating, planning, executing, controlling, and closing a project to meet project goals. Students will identify ways of completing projects more efficiently and effectively by covering the topics of planning a project; creating a project schedule; communicating project information; assigning resources and costs to a project; tracking the progress of and closing a project; and, sharing project information with other people and applications.

BUS 188 Voice Recognition (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Note: *May be open entry/open exit; may be taken 4 times with different subject matter*
Transfer acceptability: *CSU*
Hands-on application with a current voice recognition software package. Training includes training the software to recognize the user's voice; speaking accurately to improve the user's voice profile; opening and closing programs; selecting text; creating, editing, and formatting a variety of business documents; capitalizing, moving, inserting, saving, opening, and printing a variety of business documents;

customizing the software; managing applications and documents; and, managing keyboard and mouse control techniques.

BUS 190 Internet for Business (1)
Course requires 32 hours lecture/laboratory. Students should refer to course listing in Class Schedule for scheduling options.
Note: *May be open entry/open exit; may be taken 2 times*
Transfer acceptability: *CSU*
Basic concepts of navigating the Internet and Intranet including terminology, bookmarks/favorites, copying/pasting web pages, search sites/engines, file transfer, e-mail, and attachments with practical applications designed for the business environment. In addition, basic web pages will be created and edited using HTML.

BUS 195 Microsoft Office Integration (1)
2 hours lecture/laboratory
Recommended preparation: *Intermediate level knowledge of word processing, database, spreadsheet, and presentation software applications*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Preparation of a variety of business projects that integrate database, spreadsheet, word processing, and presentation software applications.

BUS 197 Business Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Business. See Class Schedule for specific topic offered. Course title will designate subject covered.

BUS 205 Business Writing (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in BUS 125 or eligibility determined through the Business English placement process*
Recommended preparation: *ENG 100*
Transfer acceptability: *CSU*
Principles of effective writing applied to business communications. Develops skill in analysis, organization, composition, and presentation of various types of letters, memos, and reports to elicit the desired responses. Formal analytical report required.

Business Management (BMGT)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Business Management

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Business Management

PROGRAMS OF STUDY

Business Management

This program includes a selection of courses that provides academic preparation to individuals who are seeking employment, or are currently employed, within the management structure of business.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Lab	1
BMGT 101	Introduction to Management	3
BMGT 115	Organizational Theory and design	3
BMGT 130	Management/Leadership Issues	3
BUS 110	Business Mathematics	3
BUS 115 or	Business Law	
BUS 117	Legal Environment of Business	3
BUS 138	Business Ethics	2
BUS 155	Marketing	3
BUS 170	Word for Business – Basic	1
BUS 180	Access for Business	1
BUS 185	PowerPoint for Business	1
BUS 205	Business Writing	3
Elective Courses (Select 3-4 units)		
ACCT 108	Managerial Accounting	4
BMGT 105	Small Business Management	3
BMGT 110	Human Resource Management	3
BMGT 125	Introduction to Labor Relations	3
BUS 130	Intro Purchase/Supply Chain Management	3
BUS 140	Selling for Business	3
BUS 145/		
FASH 125	Retailing/Promotion	3
BUS 157	E-Commerce	3
ECON 100	Basic Economics	3
BMGT 295	Directed Study in Business Management	1-3
TOTAL UNITS		**34 – 35**

COURSE OFFERINGS

BMGT 101 Introduction to Management (3)
3 hours lecture
Transfer acceptability: *CSU*
A leadership course designed to enhance understanding of responsibilities associated with management in business. Topics will cover management styles and human behavior factors associated with managing staff.

BMGT 105 Small Business Management (3)
3 hours lecture
Transfer acceptability: *CSU*
For owners and managers of small businesses. Analysis of personal qualifications, forms of ownership, sources of information, financing, planning, legal problems, record keeping, advertising, insurance, sales promotions, credit, public relations, and current aids to successful management.

BMGT 110 Human Resource Management (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of the history and present status of human resource management in the United States. Emphasis on modern techniques of recruitment, placement, wage administration, communications, training, labor relations, and employer employee relationships in modern industry and business.

BMGT 115 Organizational Theory and Design (3)
3 hours lecture
Transfer acceptability: *CSU*
Policies and methods of organization in business enterprises of various types and sizes. Functional components of business organization: planning, controlling, coordinating, and directing to meet organizational objectives. Establishing lines of authority and functions of departments or units with emphasis on systems management.

BMGT 125 Introduction to Labor Relations (3)
3 hours lecture
Transfer acceptability: *CSU*
Introduction to, and development of, an appreciation for labor relations; review of procedures involved in negotiation and administration of labor agreements; development of an understanding of the involvement of labor and management in a collective bargaining agreement; and an overview of the general nature of the labor management relationship and labor law as they currently exist in the United States.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

BMGT 130 Management/Leadership Issues (3)
3 hours lecture
Transfer acceptability: *CSU*
Examination of current issues in management and leadership including: organizing, staffing, decision making, motivating, communicating, and applying such skills to a business organization. Concepts related to group dynamics, change, conflict, organizational communications, and productivity are explored.

BMGT 197 Business Management Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Business Management. See Class Schedule for specific topic offered. Course title will designate subject covered.

BMGT 295 Directed Study in Business Management (1, 2, 3)
3, 6 or 9 hours laboratory
Prerequisite: *Approval of project or research by the instructor and Department Chair*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and or proficiencies in business management subjects and have the initiative to work independently on projects outside the context of regularly scheduled classes. Students will work under the supervision of an instructor.

Cabinet and Furniture Technology (CFT)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-1
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Cabinetmaking and Furniture Design
- Cabinetmaking and Millwork
- Furniture Making

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Cabinetmaking and Furniture Design
- Cabinetmaking and Millwork
- Furniture Making

PROGRAMS OF STUDY

Cabinetmaking and Furniture Design

Provides the student with the theory and skills needed for employment in the field of cabinetmaking and furniture design.

Program begins with the basic safe use of tools and machines and basic woodworking processes. Specific and practical skills and knowledge of the Cabinetmaking and Furniture making industries are covered with required and elected coursework.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CFT 100	Fundamentals of Woodworking	2, 3, 4
CFT 105	Machine Woodworking/Furniture	2, 3, 4
CFT 110	Machine Tool Joinery I	2, 3, 4
CFT 111	Machine Tool Joinery II	2, 3, 4
CFT 153	Studio Furniture Design I	2, 3, 4
CFT 165	Cabinet/Face Frame Construction	2, 3, 4
CFT 167	Cabinetmkg/32mm European Construction	2, 3, 4
CFT 195	Finishing Tech/Touch-Up/Repair	2, 3, 4
Group One (Select 12 units)		
CFT 149	Hand Joinery I	2, 3, 4
CFT 151	Veneering Technology I	2, 3, 4
CFT 155	Classic American Chair Designs	2, 3, 4
CFT 157	Chair/Seating Prototype Construction	2, 3, 4
CFT 158	Chair/Seating Production Manufacturing	2, 3, 4
CFT 161	Tables/Prototype Construction	2, 3, 4
CFT 162	Tables/Production Manufacturing	2, 3, 4
Group Two (Select 12 units)		
CFT 120	Advanced Furniture Lab	.5-3
CFT 122	Cabinetmaking Construction Lab	.5-3
CFT 124	Chair and Table Construction Lab	.5-3
CFT 128	Stringed Instruments Lab	.5-3
CFT 130	Stringed Instruments I	3, 4, 5
CFT 131	Stringed Instruments II	3-5
CFT 141	Making Woodworking Tools	.5-3
CFT 142	The Art and Craft of Planemaking	.5-3
CFT 143	Decorative Box Making	2, 3, 4
CFT 144	Production Furniture Making (Toys)	.5,1
CFT 145	Advanced Manufacturing Production Techniques	.5-1
CFT 148	Marquetry, Inlay and Veneering	2, 3, 4
CFT 150	Hand Joinery Technology II	3,4
CFT 152	Veneering Technology II	2, 3, 4
CFT 154	Studio Furniture Design II	2, 3, 4
CFT 156	Advanced Classic American Chair Design	2, 3, 4
CFT 163	Plastic Laminate Fabrication Techniques	.5,1
CFT 164	Cabinet Installation	.5,1
CFT 166	Cabinetmaking/Production & Manufacturing	2, 3, 4
CFT 168	Cabinetmaking/Architectural Millwork	2, 3, 4
CFT 169	Cabinetmaking/Computer Cabinet Layout	.5,1, 2, 3
CFT 170	Workbench Design and Production	2, 3, 4
CFT 171	Furniture for the Wood Shop	2, 3, 4
CFT 172	Turbo CAD for Cabinets and Furniture	2, 3, 4
CFT 173	Bamboo Fly Rod Building	2, 3, 4
CFT 175	Jigs and Fixtures	2, 3, 4
CFT 176	The Lathe - An Introduction to Woodturning	2, 3, 4
CFT 180	Wood Bending And Lamination/Wood Tech.	2, 3, 4
CFT 185	Machine Tool Set Up and Maintenance	2, 3, 4
CFT 186	Machine Tool/Production Carving	1, 2, 3, 4
CFT 187	Introduction to Carving	1, 2, 3, 4
CFT 188	Intermediate Carving	1, 2, 3, 4
CFT 189	Advanced Carving	1, 2, 3, 4
CFT 190	Specialty and Manufactured Hardware	.5,1, 2, 3
CFT 196	Special Problems in CFT	1, 2, 3, 4,5,6
CFT 197	Cabinet and Furniture Technology Topics	.5-4
CFT 198	Advanced Wood Finishing	2, 3, 4
CFT 295	Directed Study in Woodworking	1, 2, 3, 4,5,6
TOTAL UNITS		**40 – 56**

Cabinetmaking and Millwork

Provides the student with the theory and skills needed for employment in the field of cabinetmaking and millwork. Program begins with the basic safe use of tools and machines and basic woodworking processes. Specific and practical skills and knowledge of the Cabinetmaking and millwork industries are covered with required and elected coursework.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CFT 100	Fundamentals of Woodworking	2, 3, 4
CFT 105	Machine Woodworking/Furniture	2, 3, 4
CFT 165	Cabinet/Face Frame Construction	2, 3, 4
CFT 167	Cabinetmkg/32mm European Const	2, 3, 4

CFT 168	Cabinetmaking/Architectural Millwork	2, 3, 4
CFT 195	Finishing Tech/Touch-Up/Repair	2, 3, 4
Group One (Select 12 units)		
CFT 110	Machine Tool Joinery I	2, 3, 4
CFT 111	Machine Tool Joinery II	2, 3, 4
CFT 151	Veneering Technology I	2, 3, 4
CFT 153	Studio Furniture Design I	2, 3, 4
CFT 166	Cabinetmaking/Production & Manufacturing	2, 3, 4
CFT 169	Cabinetmaking/Computer Cabinet Layout	.5,1, 2, 3
CFT 185	Machine Tool Set-up and Maintenance	2, 3, 4
Group Two (Select 12 units)		
CFT 97	Cabinet and Furniture Technology Topics	.5-4
CFT 120	Advanced Furniture Lab	.5-3
CFT 122	Cabinetmaking Construction Lab	.5-3
CFT 124	Chair and Table Construction Lab	.5-3
CFT 128	Stringed Instruments Lab	.5-3
CFT 130	Stringed Instruments I	3,4,5
CFT 131	Stringed Instruments II	3,4,5
CFT 142	The Art and Craft of Planemaking	.5-3
CFT 143	Decorative Box Making	2, 3, 4
CFT 144	Production Furniture Making (Toys)	.5,1
CFT 145	Advanced Manufacturing Production Techniques	.5-1
CFT 148	Marquetry, Inlay and Veneering	2, 3, 4
CFT 149	Hand Joinery I	2, 3, 4
CFT 154	Studio Furniture Design II	2, 3, 4
CFT 155	Classic American Chair Designs	2, 3, 4
CFT 156	Adv Classic American Chair Design	2, 3, 4
CFT 157	Chair/Seating Prototype Construction	2, 3, 4
CFT 158	Chair/Seating Production Manufacturing	2, 3, 4
CFT 161	Tables/Prototype Construction	2, 3, 4
CFT 162	Tables/Production Manufacturing	2, 3, 4
CFT 163	Plastic Laminate Fabrication Techniques	.5,1
CFT 164	Cabinet Installation	.5,1
CFT 169	Cabinetmaking/Computer Cabinet Layout	.5,1, 2, 3
CFT 170	Workbench Design and Production	2, 3, 4
CFT 172	Turbo CAD for Cabinets and Furniture	2, 3, 4
CFT 173	Bamboo Fly Rod Building	2, 3, 4
CFT 175	Jigs and Fixtures	2, 3, 4
CFT 176	The Lathe - An Introduction to Woodturning	2, 3, 4
CFT 180	Wood Bending And Lamination/Wood Tech.	2, 3, 4
CFT 186	Machine Tool/Production Carving	1, 2, 3, 4
CFT 187	Introduction to Carving	1, 2, 3, 4
CFT 188	Intermediate Carving	1, 2, 3, 4
CFT 189	Advanced Carving	1, 2, 3, 4
CFT 190	Specialty and Manufactured Hardware	.5,1, 2, 3
CFT 196	Special Problems in CFT	1, 2, 3, 4,5,6
CFT 197	Cabinet and Furniture Technology Topics	.5-4
CFT 198	Advanced Wood Finishing	2, 3, 4
CFT 295	Directed Study in Woodworking	1, 2, 3, 4,5,6
TOTAL UNITS		**36 - 48**

Furniture Making

Provides the student with the theory and skills needed for employment in the field of furniture design and manufacture. Program begins with the basic safe use of tools and machines and basic woodworking processes. Specific and practical skills and knowledge of the Furniture Making industries are covered with required and elected coursework.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CFT 100	Fundamentals of Woodworking	2, 3, 4
CFT 105	Machine Woodworking/Furniture	2, 3, 4
CFT 110	Machine Tool Joinery I	2, 3, 4
CFT 111	Machine Tool Joinery II	2, 3, 4
CFT 149	Hand Joinery I	2, 3, 4
CFT 151	Veneering Technology I	2, 3, 4
CFT 153	Studio Furniture Design I	2, 3, 4
CFT 157 or CFT 161	Chair/Seating Prototype Construction Tables/Prototype Construction	2, 3, 4
CFT 195	Finishing Tech/Touch-Up/Repair	2, 3, 4
Group One (Select 5-6 units)		
CFT 155	Classic American Chair Designs	2, 3, 4
CFT 180	Wood Bending And Lamination/Wood Tech.	2, 3, 4
CFT 187	Introduction to Carving	1, 2, 3, 4
CFT 188	Intermediate Carving	1, 2, 3, 4
Group Two (Select 5-6 units)		
CFT 97	Cabinet and Furniture Technology Topics	.5-4
CFT 120	Advanced Furniture Lab	.5-3
CFT 122	Cabinetmaking Construction Lab	.5-3
CFT 124	Chair and Table Construction Lab	.5-3
CFT 128	Stringed Instruments Lab	.5-3
CFT 130	Stringed Instruments I	3,4,5
CFT 131	Stringed Instruments II	3,4,5
CFT 141	Making Woodworking Tools	.5-3
CFT 142	The Art and Craft of Planemaking	.5-3
CFT 143	Decorative Box Making	2, 3, 4
CFT 144	Production Furniture Making (Toys)	.5,1
CFT 145	Advanced Manufacturing Production Techniques	.5-1
CFT 148	Marquetry, Inlay and Veneering	2, 3, 4
CFT 156	Advanced Classic American Chair Design	2, 3, 4
CFT 158	Chair/Seating Production Manufacturing	2, 3, 4
CFT 162	Tables/Production Manufacturing	2, 3, 4
CFT 165	Cabinet/Face Frame Construction	2, 3, 4
CFT 166	Cabinetmaking/Production & Manufacturing	2, 3, 4
CFT 167	Cabinetmaking/32mm European Construction	2, 3, 4
CFT 168	Cabinetmaking/Architectural Millwork	2, 3, 4
CFT 169	Cabinetmaking/Computer Cabinet Layout	.5,1, 2, 3
CFT 170	Workbench Design and Production	2, 3, 4
CFT 172	Turbo CAD for Cabinets and Furniture	2, 3, 4
CFT 173	Bamboo Fly Rod Building	2, 3, 4
CFT 175	Jigs and Fixtures	2, 3, 4
CFT 176	The Lathe - An Introduction to Woodturning	2, 3, 4
CFT 185	Machine Tool Set Up and Maintenance	2, 3, 4
CFT 186	Machine Tool/Production Carving	1, 2, 3, 4
CFT 189	Advanced Carving	1, 2, 3, 4
CFT 190	Specialty and Manufactured Hardware	.5,1, 2, 3
CFT 196	Special Problems in CFT	1, 2, 3, 4,5,6
CFT 197	Cabinet and Furniture Technology Topics	.5-4
CFT 198	Advanced Wood Finishing	2, 3, 4
CFT 295	Directed Study in Woodworking	1, 2, 3, 4,5,6
TOTAL UNITS		**28 - 48**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CFT 97 Cabinet and Furniture Technology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to class schedule.
Note: *May be taken 4 times*
Topics in Cabinet and Furniture Technology. See Class Schedule for specific topic covered. Course title will designate subject covered.

CFT 100 Fundamentals of Woodworking (2,3,4)
4, 6, or 8 hours lecture/laboratory
Transfer acceptability: *CSU*
An introductory course in design and construction of wood products. Survey, use, care and selection of woodworking machines and hand tools. Explanation of the basic techniques of milling, joinery, assembly, and finishing.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

CFT 105 Machine Woodworking/Furniture (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 2 times*
Study, design, and development of practical applications for basic cabinet construction as utilized by the wood products industry. Includes partitions, face frame, carcase, and basic door and drawer construction. Operation of woodworking machines, tools and processes, techniques, and care and suitability of tools and machines.

CFT 110 Machine Tool Joinery I (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 3 times; maximum of 4 completions in any combination of CFT 110, CFT 111*
Through the construction of a specific furniture project, students will advance to a sophisticated level of joinery and design-utilizing mortise and tenon, dovetails, frame and panel, and other joinery appropriate to fine furniture. With the addition of advanced machinery training, students will be able to develop and build a custom design of their choice, creating heirloom furniture in either traditional or contemporary styling.

CFT 111 Machine Tool Joinery II (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 110*
Note: *May be taken 3 times; maximum of 4 completions in any combination of CFT 110, CFT 111*
Completion of student built cabinet furniture project that incorporated solid wood and traditional joinery in its design. Students will explore door and drawer construction methods, furniture hardware, and various finishing choices. Creation of special moldings and spindle turnings for decorating the carcase will also be explored.

CFT 120 Advanced Furniture Lab (.5,1,1.5,2,2.5,3)
1½, 3, 4½, 6, 7½, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Laboratory for students who need additional lab time to complete difficult, complex projects. Students will work under the supervision of an instructor.

CFT 122 Cabinetmaking Construction Lab (.5, 1, 1.5, 2, 2.5, 3)
1½, 3, 4.5, 6, 7½, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Laboratory for students who need additional lab time to complete difficult cabinetry and other complex projects. Students will work under the supervision of an instructor.

CFT 124 Chair and Table Construction Lab (.5, 1, 1.5, 2, 2.5, 3)
1½, 3, 4½, 6, 7½, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Provides additional laboratory time to complete complex projects required in other classes.

CFT 128 Stringed Instruments Lab (.5, 1, 1.5, 2, 2.5, 3)
1½, 3, 4½, 6, 7½, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Laboratory for students who need additional lab time to complete difficult stringed instruments or other complex projects. Students will work under the supervision of an instructor.

CFT 130 Stringed Instruments I (3, 4, 5)
1½, 2, or 2½ hours lecture - 4½, 6, or 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Through the fabrication of a steel stringed guitar, students will study the: history, tone theory, construction processes, materials, finishing and set up of stringed instruments. Students will work together, production style, milling raw lumber from local sources into guitar part blanks. Students will then work individually constructing their own guitar. Traditional and modern methods of construction and fabrication are explored.

CFT 131 Stringed Instruments II (3, 4, 5)
1½, 2, or 2½ hours lecture - 4½, 6, or 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 130 and CFT 100*
Note: *May be taken 4 times*
A continuation of CFT 130, and the second semester of a year long curriculum. Students will complete the construction of the body, neck, and other components of the instrument. Finishing and final set-up techniques will be covered and utilized by students.

CFT 141 Making Woodworking Tools (.5, 1, 2, 3)
1, 2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Making traditional woodworking tools used to make furniture and chairs. Topics include the history and uses of tools, materials and design, layout of the stock, equipment needed to make and finish the tools, sharpening and fitting the blades, forging and heat treating steel parts. Types of tools include spoke shaves, shaving horses, steaming devices and bending forms.

CFT 142 The Art and Craft of Planemaking (.5, 1, 2, 3)
1, 2, 4, or 6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 3 times*
This course will teach students to make wooden hand planes. Through the use of lecture, handouts, demonstrations and videos, the following topics will be covered: the history of planemaking; tuning and using wooden and metal planes; designing a plane; making and tuning laminated planes; cutting, tempering and sharpening a plane iron; designing, making and using a wooden plane.

CFT 143 Decorative Box Making (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 2 times*
Concentrates on the skills and techniques needed to make finely crafted heirloom quality boxes. Types of boxes include: jewelry, cigar humidor, and silver chest. Topics include: design, function, selection of materials, construction techniques, partitions, linings, hardware, assembly techniques, hinge installation, and finishing techniques.

CFT 144 Production Furniture Making (Toys) (.5,1)
s1 or 2 hours lecture/laboratory
Note: *May be taken 4 times*
Methods and techniques of manufacturing production are learned through lecture and demonstration. Skills are acquired as these methods and techniques are applied in extensive lab work in a production mode. To enable the production of relatively large quantities with varied complexity, this course utilizes the manufacture of quality wooden toys, which are donated to local charities.

CFT 145 Advanced Manufacturing Production Techniques (.5,1)
1½ or 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 144*
Note: *May be taken 4 times*
Methods and techniques of manufacturing production are learned through lecture and demonstration. Skills are acquired as these methods and techniques are applied in extensive lab work in a production mode. To enable the production of relatively large quantities with varied complexity, this course utilizes the manufacture of quality wooden toys donated to local charities. Advanced manufacturing students will be team leaders in design, planning and time and material managements.

CFT 148 Marquetry, Inlay and Veneering (2,3,4)
1, 1½, or 2 hours lecture- 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100 and CFT 151*
Note: *May be taken 2 times*
Examines the history of Marquetry. Students will use the tools necessary to com-

plete a Marquetry project which includes: veneer hammer, hide and other glues, veneer tape, scroll saw, veneer saw and related tools and equipment. The various methods of cutting veneers will be examined as well as methods for cutting, assembling and installing inlay.

CFT 149 Hand Joinery I (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 2 times*
Exploration of hand tool techniques with application to fine furniture. Skills will be developed through the construction of sample joints and a simple project. Topics include: marking and layout tools, cutting tools, use of the workbench and its accessories, hand saws and their use, Japanese vs. Western tools, dovetail joinery, mortise and tenon joinery, squaring and sizing with a hand plane, sharpening hand tools and building a simple carcase.

CFT 150 Hand Joinery II (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 149*
Note: *May be taken 2 times*
Comprehensive study of specialized woodworking techniques. The emphasis of this course will be on the development of hand tool skills. Learning exercises will be completed making traditional joinery typical of fine furniture.

CFT 151 Veneering Technology I (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 2 times*
Introduction to the use of veneers in furniture making. Topics include: understanding veneer as a material, cutting and seaming veneer, pressing veneer using traditional and modern methods, creating sunbursts and other multi-piece matches, using and maintaining various cutting tools and sawing your own veneer.

CFT 152 Veneering Technology II (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 151*
Note: *May be taken 2 times*
Study and practice of advanced veneering techniques which includes working with radius shapes, hand and machine marquetry techniques, hammer veneering, and installation of bandings and stringings. Students will demonstrate their abilities in the construction of a small piece of furniture.

CFT 153 Studio Furniture Design I (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 2 times*
Exploration of historical design concepts and their application to contemporary work. Development of drawing skills needed to design one of a kind studio furniture.

CFT 154 Studio Furniture Design II (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 153*
Note: *May be taken 2 times*
Implementation of students' design concepts created in CFT 153. Exploration of market opportunities and client relationships.

CFT 155 Classic American Chair Designs (2,3,4)
4, 6, or 8 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of CFT 155, CFT 156*
Chair making which emphasizes the use of traditional chair making tools to shape raw wood into chair parts. Topics include the history of Windsor and Ladder Back chair designs; harvesting raw materials from a tree; proper sharpening of the hand tools; shaping, steam bending, kiln drying and assembling the chair parts; seat weaving; and traditional finishing appropriate to each chair style.

CFT 156 Advanced Classic American Chair Designs (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 155*
Note: *May be taken 4 times; maximum of 4 completions in any combination of CFT 155, CFT 156*
Chair making which emphasizes the use of traditional chair making tools to shape raw wood into chair parts. Skill development and improved craftsmanship is emphasized while learning to make more complex chairs. Advanced chair designs include: bow back, continuous arm, writing arm, double and triple settees and fan back Windsor chairs; Appalachian style three-slat side chair, four-slat arm chair, bar stools, youth rocker and six-slat rocking chair.

CFT 157 Chair and Seating/Prototype Construction (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 3 times*
In depth study of production chair making. History of chair making and seating. Design and application of pattern making techniques on student selected projects.

CFT 158 Chair and Seating/Production Manufacturing (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 157*
Note: *May be taken 3 times*
Chair and seating construction; production and advanced machine tool techniques as they relate to chair making. Fine joinery, theory, and advanced techniques.

CFT 161 Tables/Prototype Construction (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 3 times*
Table design and construction. Machine tool operations necessary to produce various table leg, trussel, and base designs.

CFT 162 Tables/Production Manufacturing (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 161*
Note: *May be taken 3 times*
Development and refinement of table making skills, processes, and procedures. Construction of extension and drop leaf style tables. Joinery and hardware unique to table making.

CFT 163 Plastic Laminate Fabrication Techniques (.5,1)
1 or 2 hours lecture/laboratory
Note: *May be taken 2 times*
This course examines the manufacturing process for plastic laminate products, including tools, adhesives, jigs, application and installation techniques. Lectures, demonstrations, and hands-on exercises will give students the opportunity to develop the proficiency and knowledge to design, build and install plastic laminate products.

CFT 164 Cabinet Installation (.5,1)
1 or 2 hours lecture/laboratory
Note: *May be taken 2 times*
Installation of both face frame and European (32mm) cabinetry. Topics include: Understanding wall structure, measuring and planning for installation, review of cabinet construction with emphasis on installation, in-depth discussion of the tools, jigs, and techniques used for installation, installation of lower face frame cabinets, installation of upper European (32mm) cabinets, finished scribing of molding.

CFT 165 Cabinetmaking/Face Frame/Construction (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 3 times*
Traditional face frame cabinet construction as applied in kitchens and bathrooms with design, layout, and material analysis. Hands on experience in carcase construction, face frames, partitions, and construction of doors and drawers.

CFT 166 Cabinetmaking/Production and Manufacturing (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 165*
Note: *May be taken 3 times*
Designed to give students the knowledge and ability to enter the cabinetmaking business. Manufacturing and production techniques will be examined along with design, assembly, and installation. Students will learn to bid on jobs, estimate materials, provide client satisfaction, and produce quality work on a profitable basis.

CFT 167 Cabinetmaking/32mm European Construction (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 3 times*
European 32mm production methods as used in cabinetmaking. European design and space utilization; European machinery, hardware, and the latest in European systems. Influence of the 32mm system on the American cabinetmaking industry.

CFT 168 Cabinetmaking/Architectural Millwork (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 3 times*
Historical and modern architectural millworking techniques used in frame and panel systems, doors, fireplaces, wall systems, staircases, and built in components. Hands on experience on student selected projects may include woodcarving, woodturning, construction of doors and windows and the production/installation of moldings.

CFT 169 Cabinetmaking/Computer Cabinet Layout (.5,1,2,3)
1, 2, 4, or 6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 4 times*
Selection and application of appropriate software as developed for the cabinet industry. Development of industrial standard cabinet plans and specifications utilizing personal-size computer and software programs.

CFT 170 Workbench Design and Production (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 2 times*
Design and construction of the most basic of woodworking tools, a workbench. Process rough lumber to maximize yield and minimize waste. Students will be allowed to customize the size of their bench to fit individual requirements within limits. However, mass-production techniques will not be sacrificed. In addition, a broad review of woodworking vises and other bench accessories will be conducted so that students will be able to further customize their own bench.

CFT 171 Furniture for the Wood Shop (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
The individual student will be required to design and construct one or more projects from a broad range of furniture-quality accessories for the woodworking shop such as tool totes, tool boxes, chests and cabinets (both stationary and portable), step stools, saw horses or workbench accessories. Particular attention will be paid to artistic and functional design, utility, material selection and joinery techniques. Skills in spindle turning, marquetry and inlay, compound angle joinery, coopering, and veneering will be developed and employed depending on the project selected.

CFT 172 TurboCAD for Cabinets & Furniture (2, 3, 4)
4, 6, or 8 hours lecture/laboratory
Note: *May be taken 3 times*
Introduction to TurboCAD and to basic CAD concepts and their direct application to the design and drawing of custom cabinets and furniture, as an alternative to "pencil & paper" drawing. Topics will include: extensive 2D and 3D drawing, modifying, and editing tools; the production of measured, shop drawings as an essential first step in the construction of a project; rendering, as a tool in the visualization of concept design.

CFT 173 Bamboo Fly Rod Building (2, 3, 4)
1, 1½, or 2 hours lecture- 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Instruction in the art of bamboo fly rod building. A bamboo culm will be split, straightened, heat treated, planed and glued. Tips, ferrels, cork handle and reel seat are installed. Wire guides are made and installed. Other projects include fish landing nets, hexagon rod storage tubes, cork lined wooden fly boxes and portable fly tying cases.

CFT 175 Jigs and Fixtures (2, 3, 4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 4 times*
Theory of production tooling, fixtures, and jigs; design and develop practical applications of production tooling, fixtures and jigs as used in current machines within the industry. Field trips to local industries will allow students to further understand tooling as used in the trades.

CFT 176 The Lathe - An Introduction to Woodturning (2, 3, 4)
1, 1½, or 2 hours lecture- 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 2 times*
Emphasis on Spindle Turning or turning Between Centers. Students will learn the history of the lathe; the components of the lathe and how to select the best lathe and accessories for their particular turning style. Discussion of tool selection, proper tool sharpening techniques, what to expect from a basic set of turning tools with emphasis on the skew, the gouge, the parting tool and importantly – the handle. Design and fabrication of tool handles, including tool making and tool modification. Additionally, projects will include turning a mallet, tool handles, kitchen utensils, "weed vases" and ornaments. Introduction to bowl turning and turning other than solid wood such as laminates and acrylics.

CFT 180 Wood Bending and Lamination/ Wood Technology (2, 3, 4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 4 times*
Principles and practical applications of both wood bending and lamination. Mechanical and chemical means of bending wood studied and developed, specific structure and properties of wood are developed.

CFT 185 Machine Tool Set up and Maintenance (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Note: *May be taken 4 times*
Set up, repair, rebuild, and maintain tools and machines used in the wood-related industries. Machine tool operations studies and applied. Consumer information developed to acquaint student with machines and tools within the field. Planned maintenance schedules developed and applied.

CFT 186 Machine Tool/Production Carving (1,2,3,4)
2, 4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 4 times for a maximum of 9 units*
Introductory woodcarving course using hand and power machine tools. Design considerations, carving techniques, production carving, and incorporation of woodcarving into cabinetmaking, furniture construction, and architectural millwork.

CFT 187 Introduction to Carving (1,2,3,4)
2, 4, 6, or 8 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of CFT 187, CFT 188, CFT 189*
This beginning course in carving introduces students to the tools and techniques used in carving wood. The course includes specifics of available tools, their proper handling and maintenance, as well as discussions of layout and carving methods as applied to furniture and architectural millwork.

CFT 188 Intermediate Carving (1,2,3,4)
2, 4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 187*
Note: *May be taken 4 times; maximum of 4 completions in any combination of CFT 187, CFT 188, CFT 189*
This course examines methods relating to both low and high relief carving, as well as incised lettering. More complex layout and carving techniques are undertaken. Concepts such as setting-in and blocking-out are introduced while modeling, introduced in the beginning course, is more fully developed.

CFT 189 Advanced Carving (1,2,3,4)
2, 4, 6, or 8 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of CFT 187, CFT 188, CFT 189*
Advanced carving is a topical study of specific carving applications as they relate to furniture or architectural millwork. Topics are largely gathered from period styles and may include ball and claw feet, Newport shells, and Philadelphia rococo, as well as contemporary interpretations, Art Nouveau, and maritime themes. See Class Schedule for specific period styles/themes to be emphasized.

CFT 190 Specialty and Manufactured Hardware (.5,1,2,3)
1, 2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Survey of traditional, contemporary, European, and Oriental market hardware found in the cabinet and furniture industries, including consumer applications. Exploration and application of various system solutions for given problem(s). Study and application of hinges, K D fasteners, fastening systems, joint systems, drawer guides, and runners.

CFT 195 Finishing Technology/Touch Up and Repair (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Finishes as used in the wood-related fields. Study and use of penetrating, surface, epoxy, catalytic, and resin surface finishes. Preparation to include staining, filling, and glazing. Chemistry of lacquers, urethanes, oils, and enamels. Instruction and practice in the touch-up of existing finishes through use of French polishing, burn-in sticks, and dry aniline staining. Repair of fine furniture as necessary prior to finishing.

CFT 196 Special Problems in Cabinet and Furniture Technology (1,2,3,4,5,6)
3, 6, 9, 12, 15, or 18 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100 or 105*
Note: *May be taken 4 times*
A research course through individual contract concentrating in the area of Cabinet and Furniture Technology.

CFT 197 Cabinet and Furniture Technology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Cabinet and Furniture Technology. See class schedule for specific topic covered. Course title will designate subject covered.

CFT 198 Advanced Wood Finishing (2,3,4)
4, 6, or 8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in CFT 195*
Wood finishing history, processes, and application of multiple colors and complex finishes on furniture. Topics include media, solvents and tools used to apply media, faux finishes, gilding, coloring the finishing materials, turning broken or missing parts, and veneer repair.

CFT 295 Directed Study in Woodworking (1,2,3,4,5,6)
48, 96, 144, 192, 240, or 288 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Note: *May be taken 4 times*
Independent study in furniture making, cabinet making, shop layout, design, operation, and maintenance for students who have demonstrated advanced skills and/or proficiencies in Cabinet and Furniture Technology subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Registration requires prior approval of supervising instructor.

Chemistry (CHEM)

Contact the Chemistry Department for further information.
(760) 744-1150, ext. 2505
Office: NS-355B

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Chemistry

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Chemistry

PROGRAM OF STUDY

Chemistry

Provides the background to begin upper division course work and prepares the student for entry level jobs that require a knowledge of chemistry. The student is advised to check with the institution to which he/she wishes to transfer for additional courses, which may be required.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CHEM 110	General Chemistry	3
CHEM 110L	General Chemistry Laboratory	2
CHEM 115	General Chemistry	3
CHEM 115L	General Chemistry Laboratory	2
CHEM 210	Analytical Chemistry	5
CHEM 220	Organic Chemistry	5
CHEM 221	Organic Chemistry	5
TOTAL UNITS		**25**

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

CHEM 10 Chemistry Calculations (1)
1 hour lecture
Note: *Pass/No Pass grading only*
Non-degree Applicable
The basic calculation skills needed for successful performance in CHEM 100, 110, and 115. Areas such as significant figures, exponential numbers, and basic chemical problems are discussed. Emphasizes student practice of chemistry problems.

CHEM 100 Fundamentals of Chemistry (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *One year of high school algebra*
Transfer acceptability: *CSU; UC – no credit if taken after CHEM 110*
Introductory study of the principles and laboratory techniques of general chemistry. Laboratory must be taken concurrently with lecture.

CHEM 104 General Organic and Biochemistry (5)
3 hours lecture - 6 hours laboratory
Transfer acceptability: *CSU; UC*
This course will cover the basic principles of general chemistry, organic chemistry and biochemistry as needed to understand the biochemistry, physiology, and pharmacology of the human body. This course is intended mainly for students pursuing health professions.

CHEM 105 Fundamentals of Organic Chemistry (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 100, or CHEM 110 and 110L*
Transfer acceptability: *CSU; UC*
An introduction to the study of organic chemistry with an emphasis on classification, reactions, and application to allied fields. Laboratory includes techniques of isolation, identification, and synthesis of organic compounds.

CHEM 110 General Chemistry (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHEM 100 or high school chemistry with laboratory, and two years of high school algebra or MATH 60*
Corequisite: *CHEM 110L*
Transfer acceptability: *CSU; UC*
Principles of, and calculations in, areas such as atomic structure, solutions, chemical bonding, chemical formulas and equations, gases, energy transformations accompanying chemical changes, and descriptive chemistry.

CHEM 110L General Chemistry Laboratory (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 110, or concurrent enrollment in CHEM 110*
Transfer acceptability: *CSU; UC*
Qualitative and quantitative investigations designed to accompany CHEM 110.

CHEM 115 General Chemistry (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHEM 110 and 110L*
Recommended preparation: *Concurrent enrollment in CHEM 115L*
Transfer acceptability: *CSU; UC*
Principles of, and calculations in, areas such as reaction spontaneity, energy changes accompanying chemical reactions, rates of reactions, chemical equilibrium, acids and bases, precipitation reactions, complex ions, oxidation and reduction, nuclear reactions, and descriptive chemistry.

CHEM 115L General Chemistry Laboratory (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 110 and 110L; A minimum grade of 'C' in CHEM 115, or current enrollment in CHEM 115*
Transfer acceptability: *CSU; UC*
Qualitative and quantitative investigations designed to accompany CHEM 115.

CHEM 197 Chemistry Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Chemistry. See Class Schedule for specific topic offered. Course title will designate subject covered.

CHEM 205 Introductory Biochemistry (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHEM 105*
Transfer acceptability: *CSU; UC*
Fundamental principles of the chemistry of living systems, including structure and function of proteins, nucleic acids, carbohydrates, and lipids. Emphasis on metabolism, energy storage and utilization.

CHEM 210 Analytical Chemistry (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 115 and 115L*
Transfer acceptability: *CSU; UC*
Principles, calculations, and applications of volumetric, gravimetric, and instrumental analysis. Practice in standardizing reagents and determining the composition of samples of various materials.

CHEM 220 Organic Chemistry (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 115 and CHEM 115L*
Transfer acceptability: *CSU; UC*
Integrated treatment of organic chemistry including electronic and orbital theory with applications to carbon bonding, stereo chemistry, resonance theory, and reaction mechanisms of both aliphatic and aromatic compounds. Strong emphasis on organic nomenclature, reactions, preparations, and synthesis of organic compounds. Laboratory: Techniques and theories involved in organic reactions and preparations, qualitative organic analysis, and instrumental methods.

CHEM 221 Organic Chemistry (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 220*
Transfer acceptability: *CSU; UC*
Continuation of the integrated treatment of organic chemistry including electronic and orbital theory with applications to carbon bonding, stereo chemistry, resonance theory, and reaction mechanisms of both aliphatic and aromatic compounds. Strong emphasis on organic nomenclature, reactions, preparations, and synthesis of organic compounds. Laboratory: techniques and theories involved in organic reactions and preparations, qualitative organic analysis, and instrumental methods.

CHEM 295 Directed Study in Chemistry (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: *May be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study for students who have demonstrated skills and/or proficiencies in chemistry subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Chicano Studies (CS)

See also Multicultural Studies

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: ST-28

COURSE OFFERINGS

CS 100 Introduction to Chicano Studies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The development of contemporary Chicano culture including various pre Columbian and Hispanic cultures in Mexico and the Southwest. A cross disciplinary approach examines applicable methods and theories from sciences and humanities.

CS 101 The Chicano in the United States (3)
3 hours lecture
Note: *This course plus CS 102 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
An historical survey of the Mexican American/Chicano people in the United States. Emphasis on cultural and historical roots from pre Columbian times through the Spanish conquest period and subsequent cultural and racial mix, including the U.S. American culture in the Southwest.

CS 102 The Chicano and the American Political System (3)
3 hours lecture
Note: *This course plus CS 101 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC – CS 102, AS 110 and AIS 102 combined: maximum credit, one course*
A basic and practical approach to understanding and utilizing the American political system. Includes a critical evaluation of leading issues affecting Chicanos as well as a survey of social and political organizations within the community. A description and analysis of Federal, State, and local government.

CS 105 Chicano Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of Chicano literature from its pre-Columbian origins. Analyzes the identity conflicts resulting from the dual cultures of Mexican and American worlds through literary works. Introduces the student to the rich and culturally diverse Chicano and Chicana authors that reflect the literary traditions that have mirrored the Chicano-Mexican reality in the United States.

CS 110 Contemporary Mexican Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of Mexican novels, prose and poetry from the Mexican Revolution to the present. Major landmark novels of Mexico will be examined in their social and historical context. Designed to acquaint non-Spanish major students with Mexican thought, values, and literary heritage relative to world literature.

CS 115 Literature of Latin America (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of Latin American Literature which covers several epochs, genres, authors, cultures, countries, and literary movements in Mexico, Central America, South America, and the Caribbean. Some countries will stand out more than others because of the accessibility of literary works in translation.

CS 120 Introduction to Sociology of the Chicano (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The Chicano and the Chicano community within contemporary American society seen from a sociological perspective. Includes socialization/acculturation of the Chicano and the Chicano's role in societal institutions - family, marriage, religion, education, and economics.

CS 125 The History of Mexico (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the political, economic, and cultural development of the Mexican people and nation from the pre Columbian period through the Revolution of 1910.

CS 130 Contemporary Mexican Culture (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
In-depth study of contemporary Mexican culture from the twentieth century to the present. Through an interdisciplinary approach, explores multiple aspects of Mexico's current trends in the political, historical, social, and cultural realms. Includes the Mexican Revolution of 1910, Cristeros War, PRI's sphere of influence, student movements, Mexico's current political system, U.S.-Mexico relations, and Mexico's current transition towards democracy. Also includes different forms of cultural expressions such as literature, visual arts, film, song, and other written and multimedia sources.

CS 135 Mexican Art History (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Study of a broad spectrum of Mexico's arts through its literature, music, theatre, dance, and visual arts from pre-Columbian times to the present. Topics may include various musical and literary genres, folkloric dances, sculpture, and paintings. Designed to increase knowledge and appreciation of general Mexican arts and culture. Exploration of Mexican history and social development as it is expressed in its artwork. Highlights include analytical approaches to cultural syncretism as well as field trips to performances, film screenings, and exhibitions to galleries and museums.

CS 155 Ancient Civilizations of Meso America (3)
3 hours lecture
Note: *Cross listed as ANTH 155*
Transfer acceptability: *CSU; UC*
Civilizations of Pre Columbian Mexico and Central America with a focus on their origins and achievements.

CS 161 Elementary Classical Nahuatl (3)
3 hours lecture
Note: *Cross listed as AIS 161/FL 161*
Transfer acceptability: *CSU; UC*
This is an introductory course on the Classical Nahuatl language of the Aztec Empire. Students will acquire a basic knowledge of Nahuatl morphology and syntax.

Child Development (CHDV)

Contact the Child Development Department for further information.
(760) 744-1150, ext. 2206
Office: ST-34
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Infant/Toddler Teacher
- Preschool Teacher
- Early Childhood Administration
- Early Intervention Assistant
- Early Intervention Teacher
- Working with Families

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Infant/Toddler Teacher
- Preschool Teacher
- Early Childhood Administration
- Early Intervention Assistant
- Early Intervention Teacher
- Working with Families

Certificates of Proficiency -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- School Age Assistant
- Assistant Teacher

PROGRAMS OF STUDY

Child Development courses prepare students for employment as an aide, teacher, and/or director in a preschool or a child care center (including infant/toddler facilities), family child care providers, and other Child Development careers in early childhood education fields. Courses are also appropriate for parents, nannies, recreation leaders, camp counselors, elementary school teaching assistants (some classes may be used as a foundation for elementary school teachers), social services and health care practitioners, early childhood administrators, and others working with young children.

Community Care Licensing State Regulations require students who work with young children to have a minimum of 12 unit in Child Development. CHDV 100 and 115 are required core courses. Students can choose two other curriculum 3 unit CHDV courses to complete the 12 units. Suggested courses are CHDV 105, 125, 130, 135, 140, or 185.

Certificates meet the course requirements for teachers, site supervisors, and directors of private child care programs licensed by the California State Department of Social Services (Title 22), Community Care Licensing. The program also meets the course requirements for the Child Development Permit issued by the California Commission on Teacher Credentialing. Child Development programs that are state funded or federally funded (Title 5 programs such as, Head Start, state preschool, etc.) follow the Child Development Permit matrix. In addition to the course work listed in the certificate, students must have experience working with young children in order to obtain an actual Child Development Permit from the State of California. For specific questions relating to the Child Development Permit, please contact the Child Development department chair for further information.

In order to earn any of the Child Development degrees or certificates, students must achieve a minimum grade of 'C' in each of the required courses.

CHDV 121 is highly recommended for all Child Development Students.

CHDV 195 is required for the Child Development Permit issued by the Commission on Teacher Credentialing for Master Teacher, Site Supervisor, and Program Director permits.

The Child Development Department strongly recommends students complete CHDV 100 during the fall or spring semester.

Assistant Teacher

This program includes a selection of courses that provides academic preparation to individuals for a career in the field of child development. The program will give students general knowledge and skills in theory, principles, and techniques for working with young children in an entry level position.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
CHDV 100	Child Growth and Development	3
CHDV 105	Observation, Assessment, and Participation	3
and		
CHDV 105A	Observation, Assessment, and Participation Lab - Preschool	1
or		
CHDV 105B	Observation, Assessment, and Participation Lab - Infant/Toddler	1
or		
CHDV 105C	Observation, Assessment, and Participation Lab - Early Intervention	1
CHDV 115	Child, Family, and Community	3
CHDV 120	Children's Health, Safety, and Nutrition	3
CHDV 185	Curriculum in Early Childhood Education	3
TOTAL UNITS		**16**

Early Childhood Administration

This program includes a selection of courses that provides academic preparation to individuals for a career as a director or site supervisor in an early childhood setting. The program will give students general knowledge and skills in theory, principles, and techniques for working in an administrative position.

The 48.5 units listed in this section enable students to complete an Early Childhood Administration Certificate.

Students also have the option to earn an Associate in Arts Degree in Child Development by completing 48.5 units for this Certificate and the General Education courses required by the college.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 100	Child Growth and Development	3
CHDV 102	Working with Parents and Families	3
CHDV 104	Guidance for Young Children	3
CHDV 105	Observation, Assessment, and Participation	3
and		
CHDV 105A	Observation, Assessment, and Participation Lab - Preschool	1
or		
CHDV 105B	Observation, Assessment, and Participation Lab - Infant/Toddler	1
or		
CHDV 105C	Observation, Assessment, and Participation Lab - Early Intervention	1
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 110	Introduction to Special Education	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Children's Health, Safety, and Nutrition	3
CHDV 145	Children: Victims of Violence	3
CHDV 150*	Advanced Administration for Early Childhood Directors	3
CHDV 152	Environmental Rating Scale for Childhood Settings	1.5
CHDV 155*	Advanced Supervision for Early Childhood Directors	3
CHDV 172	Teaching in a Diverse Society	3
CHDV 174	Policies, Politics, and Ethnics in Child Development	1
CHDV 185	Curriculum in Early Childhood Education	3
CHDV 195	Adult Supervision/Mentor Teacher Preparation	3
CHDV 200	Program and Supervised Experiences in Early Childhood	3
and		
CHDV 200A	Program and Supervised Lab Experiences in a Preschool/Early Childhood Setting	2
or		
CHDV 200B	Program and Supervised Lab Experiences in an Infant/Toddler Setting	2
or		
CHDV 200C	Program and Supervised Lab Experiences in an Inclusive Setting	2
TOTAL UNITS		**48.5**

* CHDV 150 and 155 courses are administration courses required for director positions in licensed child care facilities through Community Care Licensing.

Recommended Electives, CHDV 121, CHDV 197A, CHDV 197B, CHDV 197C, CHDV 197D, CHDV 295

Early Intervention Assistant

This program includes a selection of courses that provide academic preparation for a career in working with typically developing children and children with disabilities (birth to 5 years) in inclusive settings. This program will give students general knowledge and skills in theory, principles, and techniques for work in inclusive settings.

The 28 units listed in this section enable students to complete an Early Intervention Assistant Certificate of Achievement.

Students also have the option to earn an Associate in Arts degree in Child Development by completing the 28 units for this Certificate and the General Education courses required by the college.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 100	Child Growth and Development	3
CHDV 103	Infant and Toddler Development	3
CHDV 104	Guidance for Young Children	3
CHDV 105	Observation, Assessment, and Participation	3
and		
CHDV 105C*	Observation, Assessment, and Participation Lab - Early Intervention	1
CHDV 110	Introduction to Special Education	3
CHDV 112	Early Intervention and Inclusion	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Children's Health, Safety, and Nutrition	3
CHDV 185	Curriculum in Early Childhood Education	3
TOTAL UNITS		**28**

* CHDV 105C placement for observation must be in a classroom with children with identified disabilities and IFSP or IEP.

Early Intervention Teacher

This program includes a selection of courses that provide academic preparation for a teaching career in working with typically developing children and children with disabilities (birth to 5 years) in inclusive settings. This program will give students general knowledge and skills in theory, principles, and techniques for work in inclusive settings.

The 43.5 units listed in this section enable students to complete an Early Intervention Teacher Certificate of Achievement.

Students also have the option to earn an Associate in Arts degree in Child Development by completing the 43.5 units for this Certificate and the General Education courses required by the college.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 100	Child Growth and Development	3
CHDV 103	Infant and Toddler Development	3
CHDV 104	Guidance for Young Children	3
CHDV 105 and	Observation, Assessment, and Participation	3
CHDV 105C*	Observation, Assessment, and Participation Lab - Early Intervention	1
CHDV 106	Infant and Toddler Care and Curriculum	3
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 110	Introduction to Special Education	3
CHDV 112	Early Intervention and Inclusion	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Children's Health, Safety, and Nutrition	3
CHDV 142	Using Sign in the Early Childhood Setting	.5
CHDV 145	Children: Victims of Violence	3
CHDV 172	Teaching in a Diverse Society	3
CHDV 185	Curriculum in Early Childhood Education	3
CHDV 200+ and	Program and Supervised Experiences in Early Childhood	3
CHDV 200C*	Program and Supervised Lab Experiences in an Inclusive Setting	2
TOTAL UNITS		**43.5**

* CHDV 105C and CHDV 200C placement for observation and supervised field experience must be in a classroom with children with identified disabilities and IFSP or IEP.

+ CHDV 200 should be taken in the last semester for this certificate or A.A. degree major program.

Infant/Toddler Teacher

This program includes a selection of courses that provides academic preparation to individuals for a teaching career to work with infants and toddlers (birth to 36 months) in early childhood settings. The program will give students the general knowledge and skills in theory, principles, and techniques for this specialized group of children.

The 43.5 units listed in this section enable students to complete an Infant/Toddler Teacher Certificate.

Students also have the option to earn an Associate in Arts Degree in Child Development by completing 43.5 units for this Certificate and the General Education courses required by the college.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 100	Child Growth and Development	3
CHDV 103	Infant and Toddler Development	3
CHDV 104	Guidance for Young Children	3
CHDV 105 and	Observation, Assessment, and Participation	3
CHDV 105B**	Observation, Assessment, and Participation Lab - Infant/Toddler	1
CHDV 106	Infant and Toddler Care and Curriculum	3
CHDV 110	Introduction to Special Education	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Children's Health, Safety, and Nutrition	3
CHDV 145	Children: Victims of Violence	3
CHDV 152#	Environmental Rating Scale for Childhood Settings	1.5
CHDV 185	Curriculum in Early Childhood Education	3
CHDV 200+ and	Program and Supervised Experiences in Early Childhood	3
CHDV 200B**	Program and Supervised Lab Experiences in an Infant/Toddler Setting	2
Electives (select 6 units)		
CHDV 101	Foundations of Child Development	3
CHDV 102	Working with Parents and Families	3
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 142	Using Sign in the Early Childhood Setting	.5
CHDV 144 / COMM 144	Exploring the Effects of Media on Young Children	.5
CHDV 172	Teaching in a Diverse Society	3
CHDV 174	Policies, Politics, and Ethics in Child Development	1
TOTAL UNITS		**43.5**

** CHDV 105B and 200B placement for observation and supervised field experience must be in a classroom with infants or toddlers.

CHDV 152 students must complete the Infant/Toddler Rating Scale (ITERS-R).

+ CHDV 200 should be taken in the last semester for this certificate or A.A. degree major program.

Preschool Teacher

This program includes a selection of courses that provides academic preparation to individuals for a career as a preschool teacher in an early childhood setting. The program will give students general knowledge and skills in theory, principles, and techniques for working with young children.

The 43.5 units listed in this section enable students to complete a Preschool Teacher Certificate.

Students also have the option to earn an Associate in Arts Degree in Child Development by completing 43.5 units for this Certificate and the General Education courses required by the college.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 100	Child Growth and Development	3
CHDV 101	Foundations of Child Development	3
CHDV 104	Guidance for Young Children	3
CHDV 105 and	Observation, Assessment, and Participation	3
CHDV 105A**	Observation, Assessment, and Participation Lab - Preschool	1
CHDV 110	Introduction to Special Education	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Children's Health, Safety, and Nutrition	3
CHDV 145	Children: Victims of Violence	3
CHDV 152#	Environmental Rating Scale for Childhood Settings	1.5
CHDV 185	Curriculum in Early Childhood Education	3
CHDV 200+ and	Program and Supervised Experiences in Early Childhood	3
CHDV 200A**	Program and Supervised Lab Experiences in a Preschool/Early Childhood Setting	2
Electives (Choose 9 units from the following)		
CHDV 125	Art in Early Childhood	3
CHDV 130	Math and Science in Early Childhood	3
CHDV 135	Music and Creative Movement in Early Childhood	3
CHDV 140	Children's Literature and Language Development	3
TOTAL UNITS		**43.5**

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

** CHDV 105A and 200A placement for observation and supervised field experience must be in a classroom with preschool age children.

CHDV 152 students must complete the Early Childhood Environmental Rating Scale (ECERS-R).

+ CHDV 200 should be taken in the last semester for this certificate or A.A. degree major program.

School Age Assistant

This program includes a selection of courses that provides academic preparation to individuals for a career working with school age children in before and after school and enrichment programs. The program will give students general knowledge and skills in theory, principles, and techniques for working with school age children in an entry level position.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CHDV 100	Child Growth and Development	3
CHDV 104	Guidance for Young Children	3
CHDV 115	Child, Family, and Community	3
CHDV 180	Understanding and Working with the School-Age Child	3
CHDV 190	Curriculum for the School-Aged Child	3
TOTAL UNITS		**15**

Working with Families

This program includes a selection of courses that provides academic preparation to individuals for a career in working with families in an early childhood environment. The program will give students general knowledge and skills in theory, principles, and techniques for working with young children and families.

The 34 units listed in this section enable students to complete a Working with Families Certificate.

Students also have the option to earn an Associate in Arts Degree in Child Development by completing 34 units for this Certificate and the General Education courses required by the college.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CHDV 100	Child Growth and Development	3
CHDV 101	Foundations of Child Development	3
CHDV 102	Working with Parents and Families	3
CHDV 104	Guidance for Young Children	3
CHDV 105	Observation, Assessment, and Participation	3
and		
CHDV 105A	Observation, Assessment, and Participation Lab - Preschool	1
or		
CHDV 105B	Observation, Assessment, and Participation Lab - Infant/Toddler	1
or		
CHDV 105C	Observation, Assessment, and Participation Lab - Early Intervention	1
CHDV 110	Introduction to Special Education	3
CHDV 115	Child, Family, and Community	3
CHDV 145	Children: Victims of Violence	3
CHDV 172	Teaching in a Diverse Society	3
Electives (select 6 units)		
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 125	Art in Early Childhood	3
CHDV 130	Math and Science in Early Childhood	3
CHDV 135	Music and Creative Movement in Early Childhood	3
CHDV 140	Children's Literature and Language Development	3
CHDV 144/ COMM 144	Exploring the Effects of Media on Young Children	.5
CHDV 174	Policies, Politics, and Ethics in Child Development	1
CHDV 185	Curriculum in Early Childhood Education	3
TOTAL UNITS		**34**

COURSE OFFERINGS

CHDV 100 Child Growth and Development (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A broad overview of human development, both typical and atypical development, from conception through adolescence with an emphasis on physical, cognitive, and psychosocial needs, with research and theories applied to modern society. Extensive information to assist in understanding human growth and development.

CHDV 101 Foundations of Child Development (3)
3 hours lecture
Transfer acceptability: *CSU*
Introduction to child development designed to familiarize students with the history and development of the field. Topics covered will include theory, philosophy, trends, career opportunities, legal requirements, qualifications, roles and responsibilities of teachers; communication with families, co-workers, and employers; discussion of ethics, politics, and current issues and trends in child development.

CHDV 102 Working with Parents and Families (3)
3 hours lecture
Transfer acceptability: *CSU*
Assists teachers and child care providers in developing a family centered approach to parent involvement. Explores different kinds of families, working with families of diverse cultures and families with children with special needs. Includes communication skills, home visits, conferences, group meetings, and stages of parenting.

CHDV 103 Infant and Toddler Development (3)
3 hours lecture
Transfer acceptability: *CSU*
A study of the process of human development from conception to 36 months of age, as influenced by heredity, society, and human interaction, with implications for guidance. Prenatal development and the birth process are examined. In addition to typical and atypical developmental milestones in all domains, a focus on attachment in relation to development is emphasized.

CHDV 104 Guidance for Young Children (3)
3 hours lecture
Transfer acceptability: *CSU*
Designed to increase understanding of children's behavior. Explores effective techniques for dealing with issues including separation, peer interaction, fears, frustrations and aggression. Emphasizes teaching children pro-social interactions, self control, and decision making skills. Focuses on understanding behavior as communication and expression of needs. Strategies for environmental controls for behavior are emphasized.

CHDV 105 Observation, Assessment, and Participation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHDV 100*
Corequisite: *CHDV 105A, 105B, or 105C*
Recommended preparation: *ENG 50*
Transfer acceptability: *CSU*
Students will analyze developmentally appropriate child development practices by observing and recording behaviors of children of various ages: infant/toddler, preschool, early elementary, and in early intervention settings. Techniques, methods and organization of factual information concerning the young child will be implemented.

CHDV 105A Observation, Assessment, and Participation Lab - Preschool (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHDV 105, or concurrent enrollment in CHDV 105*
Transfer acceptability: *CSU*

Designed to give students direct experience in observing and recording children's behaviors in a preschool or equivalent early childhood setting. Participating and working directly with young children in a preschool classroom or equivalent setting is required. Laboratory experience will be completed at one of the Palomar College Child Development Centers on campus or with a department approved California Mentor Teacher.

CHDV 105B Observation, Assessment, and Participation Lab - Infant/Toddler (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHDV 105, or concurrent enrollment in CHDV 105*
Transfer acceptability: *CSU*
Designed to give students direct experience through observing and recording children's behaviors in an infant and/or toddler setting. Participating and working directly with infants and/or toddlers in a classroom is required. Laboratory experience will be completed at one of the Palomar College Child Development Centers on campus or with a department approved California Mentor Teacher.

CHDV 105C Observation, Assessment, and Participation Lab - Early Intervention (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHDV 105, or concurrent enrollment in CHDV 105*
Transfer acceptability: *CSU*
Designed to give students direct experience through observing and recording children's behaviors in an early childhood inclusive setting. Participating and working directly with children with special needs in a classroom is required. Laboratory experience will be completed at one of the Palomar College Child Development Centers on campus or with a department approved California Mentor Teacher.

CHDV 106 Infant and Toddler Care and Curriculum (3)
3 hours lecture
Recommended preparation: *CHDV 103*
Transfer acceptability: *CSU*
A survey of program and activity planning for infants and toddlers (birth to 36 months) in child care programs, emphasizing the role of the environment on behavior, attachment, and development. Strategies for working with parents, observation and assessment skills and the need for professional development will be explored. Concepts of effective practice for infant and toddler care with an emphasis on communication, cultural differences, problem-solving, and providing an appropriate and nurturing environment for children of all ability levels.

CHDV 108 Developmentally Appropriate Principles and Practices (1)
1 hour lecture
Transfer acceptability: *CSU*
This course is designed to introduce Developmentally Appropriate Practices and Early Learning Standards. A focus will be placed on current best practices in curriculum activities, methods, and materials appropriate for planning a program for young children. Techniques for incorporating Early Learning Standards into Developmentally Appropriate curriculum will be explored.

CHDV 110 Introduction to Special Education (3)
3 hours lecture
Transfer acceptability: *CSU*
Provides an overview of special education in the United States, including the historical antecedents, legislation, and disability categories covered by IDEA. Discussion of societal, family, and classroom issues relevant to children with special needs. Focus on fostering understanding and respect for people with differences, their families, and the professionals that serve them.

CHDV 112 Early Intervention and Inclusion (3)
3 hours lecture
Recommended preparation: *CHDV 110*
Transfer acceptability: *CSU*
This course focuses on the theories, research, and practical applications of special education in an early childhood setting, specifically with children from birth to age 8. Topics covered will include curriculum modification and accommodation strategies to facilitate the development of cognitive, motor, social, emotional, and language skills in infants, toddlers, and young children with disabilities. Specific emphasis will be placed on developing classroom and behavior management plans, collaborative teaching strategies, understanding the IFSP and IEP process as it relates to early childlhood, and methods for working with professionals in the field as well as the families of children with special needs.

CHDV 115 Child, Family, and Community (3)
3 hours lecture
Transfer acceptability: *CSU*
The study of the child in relation to the family, school, and community; family relationships; factors affecting parental attitudes; and values of individuals and families. Focus on understanding the holistic approach to child development, including theory and practice.

CHDV 120 Children's Health, Safety, and Nutrition (3)
3 hours lecture
Transfer acceptability: *CSU*
Physical, psychosocial, and mental health including preventative and treatment measures. Emphasis is placed on development of understanding and practices of preventative health systems including sanitary food handling, child nutrition, child abuse, and emergency preparedness and evacuation. Health assessments and the changing of health behaviors are stressed. Students will create, assess and monitor safe indoor and outdoor environments for children. Focus is on children birth to age 8.

CHDV 121 Pediatric CPR and First Aid (.5)
½ hour lecture
Note: *May be taken 4 times, Pass/No Pass grading only*
Transfer acceptability: *CSU*
Prepares childcare workers, parents, and other adults working with children for skills and knowledge required for pediatric first aid and CPR.

CHDV 125 Art in Early Childhood (3)
3 hours lecture
Transfer acceptability: *CSU*
Methods and processes for developing creativity through art for young children. Students will plan, implement, and evaluate developmentally appropriate art and creative experiences for young children and apply theoretical concepts in a variety of ways. Materials used in art will be explored. An emphasis will be placed on the developmental and experiential approaches and techniques.

CHDV 130 Math and Science in Early Childhood (3)
3 hours lecture
Transfer acceptability: *CSU*
Students will examine math and science concepts for young children, infants through eight years. Students will plan, implement, and evaluate developmentally appropriate math and science experiences for young children and apply theoretical concepts using various methods. An emphasis is placed on developmental and experiential methods.

CHDV 135 Music and Creative Movement in Early Childhood (3)
3 hours lecture
Transfer acceptability: *CSU*
Developing creative experiences through music and movement activities. Songs, movement, and instrument experiences will be presented. Appropriate lesson plans and techniques will be developed.

CHDV 140 Children's Literature and Language Development (3)
3 hours lecture
Transfer acceptability: *CSU*
Survey of historic and contemporary children's literature. A critical look at children's books and the process of choosing age appropriate books for children, infancy through adolescence. Overview of typical language development and literacy development from birth through early childhood, including theoretical approaches and developmental issues, as well as techniques for appropriately incorporating literacy into the classroom.

CHDV 142 Using Sign in the Early Childhood Setting (.5)
½ hour lecture
Transfer acceptability: *CSU*
Explores the benefits and research behind signing with infants, toddlers, and preschoolers. Techniques for implementing use of signs in the classroom with children will be discussed, as well as basic signing exercises and games.

CHDV 144 Exploring the Effects of Media on Young Children (.5)
½ hour lecture
Note: *Cross listed as COMM 144*
Transfer acceptability: *CSU*
Explores the effects of media consumption on children's social-emotional, physical, and cognitive development. Research behind the risks associated with television and computer use and popular culture saturation for young children. Techniques for addressing media consumption with children, parents and families.

CHDV 145 Children: Victims of Violence (3)
3 hours lecture
Transfer acceptability: *CSU*
Prepares the student to identify, report, and work with families who interact violently and children impacted by violence. Includes the historical background and legal aspects of child abuse, as well as practical application, identification and assessment, and community services and agencies.

CHDV 150 Advanced Administration for Early Childhood Directors (3)
3 hours lecture
Recommended preparation: *CHDV 100, 110, 115, 120, 145, 185*
Transfer acceptability: *CSU*
Application of basic management principles in Child Development programs including state regulations, funding, budget preparation, and policy writing. Ethical concerns and professional development will be addressed. This course partially fulfulls the requirement for administration for the Site Supervisor and Program Director Child Development Permits issued by the State of California Commission on Teaching Credentialing, and also meets Title 22 licensing regulations for directors.

CHDV 152 Environmental Rating Scale for Childhood Settings (1.5)
1½ hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
An overview of the Environmental Rating Scale for infant/toddler (ITERS-R), early childhood (ECERS-R), family day care (FDCRS) and school-age (SACERS) settings. Self study and assessment methods for quality environments will be explored. Application of the concepts will be emphasized.

CHDV 155 Advanced Supervision for Early Childhood Directors (3)
3 hours lecture
Recommended preparation: *CHDV 100, 110, 115, 120, 145, 185*
Transfer acceptability: *CSU*
The student will explore the tools that generate productive staff management and identify supervisory techniques such as staff motivation, staff benefits, team building, leadership skills, and situation leadership. This course partially fulfills the requirement for administration for the Site Supervisor and Program Director Child Development Permits isssued by the State of California Commission on Teacher Credentialing, and also meets Title 22 licensing regulations for directors.

CHDV 172 Teaching in a Diverse Society (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of both the Anti-Bias and Peaceable Classroom curricula with a focus on developing the ability of teachers to create early childhood settings that encourage an appreciation, understanding and respect of similarities and differences of cultures. Social and emotional learning and conflict resolution is explored as a part of this process. This course will help students explore and address diversity issues and analyze the many contexts and variables related to an individual's socialization process that impact work with children and families.

CHDV 174 Policies, Politics, and Ethics in Child Development (1)
1 hour lecture
Transfer acceptability: *CSU*
This course provides an overview of professional standards in the child development field. Policies and ethics for working with children, families, and communities are explored in view of changing political times and how professionals are affected and influenced by these changes. The course overviews the steps needed to become effective advocates on behalf of children and families.

CHDV 180 Understanding and Working with the School-Age Child (3)
3 hours lecture
Transfer acceptability: *CSU*
Designed to prepare students to work with children ages five through 12 years, by focusing on the development of the children in this age group. Students will study developmental theories and the practical implications of these theories when working with the school-aged child. Licensing regulations for Title 5 and 22 programs will be explored.

CHDV 185 Curriculum in Early Childhood Education (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHDV 105*
Recommended preparation: *A minimum of 12 Child Development units*
Transfer acceptability: *CSU*
This course provides a foundation in curriculum planning and development. It emphasizes developmentally appropriate environments, activities, guidance, schedules and routines, and daily, weekly, and extended lesson plans. A wide range of theoretical curricular approaches will be explored.

CHDV 190 Curriculum for the School-Age Child (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of programs and activities planning for school-age children, including both before and after school curriculum and activities for groups and individuals of various development levels.

CHDV 195 Adult Supervision/Mentor Teacher Preparation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHDV 100, 105 and 115*
Transfer acceptability: *CSU*
Methods and principles of supervising student teachers in early childhood classrooms. Emphasizes the role of the experienced classroom teacher who functions as a mentor to new teachers while simultaneously addressing the needs of children, parents, staff and community resources. Students study effective models for guidance and evaluation of adults, positive communication skills, and the role of the mentor in a teaching environment. This course is designed for students who plan to supervise other adults in the early childhood classroom. This course is required for the levels of Master Teacher, Site Supervisor, and Program Director for the Child Development Permit issued by the State of California Commission on Teacher Credentialing.

CHDV 197A Child Development Workshop: Cultural and Social Arts (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times; Pass/No Pass grading*
Transfer acceptability: *CSU*
Workshop to provide upgrading of knowledge and skills in state of the art techniques in cultural arts; to include speakers, seminars, and in service training in current aspects of child development.

CHDV 197B Child Development Workshop: Health, Safety, and Nutrition (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times; Pass/No Pass grading*
Transfer acceptability: *CSU*

Workshop will provide current knowledge and skills in state of the art techniques in infant, child, and adolescent health, safety, food service, nutrition, communicable disease, pediatric CPR and first aid, and injury control. Includes speakers, seminars, and in service training in current aspects of child development.

CHDV 197C Child Development Workshop: Professional Education (.5 - 4)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.

Note: *May be taken 4 times; Pass/No Pass grading*

Transfer acceptability: *CSU*

Workshop will provide current knowledge and skills in state of the art techniques in professional education which includes speakers, seminars, and in service training in current aspects of child development.

CHDV 197D Child Development Workshop: Parenting Topics (.5 - 4)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.

Note: *May be taken 4 times; Pass/No Pass grading*

Transfer acceptability: *CSU*

Concepts of effective parenting in various family structures including: nuclear, single parent, extended, and step family. An emphasis will be placed on communication and problem solving, discipline, and values. A one-unit class will satisfy court mandated parenting requirements. Verification given upon request. Student must attend all class sessions to receive verification.

CHDV 200 Program and Supervised Experiences in Early Childhood (3)

3 hours lecture

Prerequisite: *Prerequisites vary according to the student's target Certificate or Degree. Contact the Child Development Department if assistance is needed.*

Prerequisites for Early Childhood Administration A.A. Degree or Certificate of Achievement: *Completion with a minimum grade of 'C', or concurrent enrollment in CHDV 100; CHDV 102; CHDV 104; CHDV 105 and 105A or 105B or 105C; CHDV 108; CHDV 110; CHDV 115; CHDV 120; CHDV 145; CHDV 150; CHDV 152; CHDV 155; CHDV 172; CHDV 174; CHDV 185; CHDV 195; and CHDV 200A or 200B or 200C*

Prerequisites for Early Intervention Teacher A.A. Degree or Certificate of Achievement: *Completion with a minimum grade of 'C', or concurrent enrollment in CHDV 100; CHDV 103; CHDV 104; CHDV 105 and 105C; CHDV 106; CHDV 108; CHDV 110; CHDV 112; CHDV 115; CHDV 120; CHDV 142; CHDV 145; CHDV 172; CHDV 185 and CHDV 200C*

Prerequisites for Infant/Toddler Teacher A.A. Degree or Certificate of Achievement: *Completion with a minimum grade of 'C', or concurrent enrollment in CHDV 100; CHDV 103; CHDV 104; CHDV 105 and 105B; CHDV 106; CHDV 110; CHDV 115; CHDV 120; CHDV 145; CHDV 152; CHDV 185 and CHDV 200B; plus 6 elective units from the following CHDV 101, or CHDV 102, or CHDV 108, or CHDV 142, or CHDV 144/COMM 144, or CHDV 172, or CHDV 174*

Prerequisites for Preschool Teacher A.A. Degree or Certificate of Achievement: *Completion with a minimum grade of 'C', or concurrent enrollment in CHDV 100; CHDV 101; CHDV 104; CHDV 105 and 105A; CHDV 110; CHDV 115; CHDV 120; 3 of the following 4: CHDV 125, CHDV 130, CHDV 135, CHDV 140; CHDV 145, CHDV 152; CHDV 185; and CHDV 200A*

Transfer acceptability: *CSU*

Designed to prepare the student to teach in various types of early childhood programs. Students will create developmentally appropriate lesson plans, curriculum planning, instructional methods, observational methods, guidance techniques, and activities for young children. Self evaluations, resume and interview information will be incorporated. Student lab placement will be designed to meet the requirements for a specific certificate.

CHDV 200A Program and Supervised Lab Experiences in a Preschool/Early Childhood Setting (2)

6 hours laboratory

Prerequisite: *A minimum grade of 'C' in CHDV 200, or concurrent enrollment in CHDV 200*

Transfer acceptability: *CSU*

Students will implement developmentally appropriate lesson plans, curriculum planning, instructional methods, observational methods, guidance techniques, and activities for young children in a supervised preschool/early childhood teaching experience at Palomar College Child Development Centers or at a designated site with a mentor teacher approved by the California Early Childhood Mentor Program.

CHDV 200B Program and Supervised Lab Experiences in an Infant/Toddler Setting (2)

6 hours laboratory

Prerequisite: *A minimum grade of 'C' in CHDV 200, or concurrent enrollment in CHDV 200*

Transfer acceptability: *CSU*

Students will implement developmentally appropriate lesson plans, curriculum planning, instructional methods, observational methods, guidance techniques, and activities for infants/toddlers in a supervised teaching experience at Palomar College Child Development Centers or at a designated site with a mentor teacher approved by the California Early Childhood Mentor Program.

CHDV 200C Program and Supervised Lab Experiences in an Inclusive Setting (2)

6 hours laboratory

Prerequisite: *A minimum grade of 'C' in CHDV 200, or concurrent enrollment in CHDV 200*

Transfer acceptability: *CSU*

Students will implement developmentally appropriate lesson plans, curriculum planning, instructional methods, observational methods, guidance techniques, and activities for young children in an inclusive setting in a supervised teaching experience at Palomar College Child Development Centers or at a designated site with a mentor teacher approved by the California Early Childhood Mentor Program.

CHDV 295 Directed Study in Child Development (1, 2, 3)

3, 6, or 9 hours laboratory

Prerequisite: *Approval of project or research by department chairperson/ director*

Note: *May be taken 4 times for a maximum of 6 units*

Transfer acceptability: *CSU*

Independent study for students who have demonstrated skills and/or proficiencies in child development subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Chinese (CHIN)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

CHIN 101 Chinese I (5)

5 hours lecture - 1 hour laboratory

Transfer acceptability: *CSU; UC*

This course is the first semester of Chinese. This elementary level course is a study of the Chinese language and Chinese-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in Chinese.

CHIN 101A Chinese IA (3)

3 hours lecture

Note: *Covers first half of CHIN 101; not open to students with credit for CHIN 101*

Transfer acceptability: *CSU; UC*
Chinese 101A is equivalent to the first half of Chinese 101. This elementary level course is a study of the Chinese language and Chinese-speaking cultures, with emphasis on the development of communicative skills and basic structures. This beginning-level course is for students with no previous coursework in Chinese.

CHIN 101B Chinese IB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHIN 101A or one year of high school Chinese*
Note: *Covers second half of CHIN 101; not open to students with credit for CHIN 101*
Transfer acceptability: *CSU; UC*
Chinese 101B is equivalent to the second half of Chinese 101, and is a continuation of Chinese 101A. This elementary course is a study of the Chinese language and Chinese-speaking cultures, with emphasis on the development of communicative skills and basic structures.

CHIN 102 Chinese II (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in CHIN 101 or 101B or two years of high school Chinese*
Transfer acceptability: *CSU; UC*
This course is the second semester of Chinese. This elementary level course is a study of the Chinese language and Chinese-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

CHIN 102A Chinese IIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHIN 101 or 101B or two years of high school Chinese*
Note: *Covers first half of CHIN 102; not open to students with credit for CHIN 102*
Transfer acceptability: *CSU; UC*
Chinese 102A is equivalent to the first half of Chinese 102. This elementary level course is a study of the Chinese language and Chinese-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

CHIN 102B Elementary Chinese IIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHIN 102A or two years of high school Chinese*
Note: *Covers second half of CHIN 102; not open to students with credit for CHIN 102*
Transfer acceptability: *CSU; UC*
Chinese 102B is equivalent to the second half of Chinese 102, and is a continuation of Chinese 102A. This elementary level course is a study of the Chinese language and Chinese-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

CHIN 130 Chinese Civilization (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the major developments and characteristics of Chinese civilization and culture from its origins to modern times.

CHIN 197 Chinese Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Chinese. See Class Schedule for specific topic offered. Course title will designate subject covered.

CHIN 201 Chinese III (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in CHIN 102 or 102B or three years of high school Chinese*
Transfer acceptability: *CSU; UC*
This course is the third semester of Chinese. This intermediate level course is a study of the Chinese language and Chinese-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Chinese. Class is largely conducted in Chinese.

CHIN 201A Chinese IIIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHIN 102 or 102B or three years of high school Chinese*
Note: *Covers first half of CHIN 201; not open to students with credit for CHIN 201*
Transfer acceptability: *CSU; UC*
Chinese 201A is equivalent to the first half of Chinese 201. This intermediate level course is a study of the Chinese language and Chinese-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Chinese. Class is largely conducted in Chinese.

CHIN 201B Chinese IIIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHIN 201A*
Note: *Covers second half of CHIN 201; not open to students with credit for CHIN 201*
Transfer acceptability: *CSU; UC*
Chinese 201B is equivalent to the second half of Chinese 201, and is a continuation of Chinese 201A. This intermediate level course is a study of the Chinese language and Chinese-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Chinese. Class is largely conducted in Chinese.

Cinema (CINE)

See also Journalism, and Radio/Television

Contact the Communications Department for further information.
(760) 744-1150, ext. 2440
Office: U-12
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Cinema

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Cinema

PROGRAM OF STUDY

Cinema

Provides the theory and practice necessary for work in the field of film making.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CINE 100	Art of the Cinema	3
CINE 102	History of Film to 1945	3
CINE 103	History of Film 1945–Present	3
CINE 105	Film Subjects	3
CINE 120	Film Criticism	3
CINE/RTV 125	Beginning Film and Video Field Production	3
CINE/RTV 225	Intermediate Film and Video Field Production	3

Electives (Select 6 units)

CINE 110	The Non Fiction Film	3
CINE/RTV 115	Creative Writing for TV/Cinema	3
CINE 122	Identity in American Film	3
CINE 296	Special Projects	1, 2, 3
RTV 110	Broadcast Writing and Producing	3
TOTAL UNITS		**27**

COURSE OFFERINGS

CINE 100 Art of the Cinema (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An aesthetic study of the film. Areas of investigation will include symbolism, characterization, imagery, and uses of realism and fantasy. Criticism of important films will be in terms of thematic coherence, structural unity, technical achievement, and visual beauty. Off campus programs may be required.

CINE 102 History of Film to 1945 (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the development of the motion picture as an art form and cultural phenomenon from its inception to the end of World War II, including early inventors, pioneers of cinematic grammar, and major film movements such as German Expressionism, Soviet Montage, and the golden age of the American studio system. Films are regularly screened in the classroom.

CINE 103 History of Film 1945-Present (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the development of the motion picture as an art form and cultural phenomenon from the end of World War II to the present day, including major film movements such as Italian Neorealism, Film Noir, the French New Wave, and the American Renaissance of the 1960s-70s. Films are regularly screened in the classroom.

CINE 105 Film Subjects (3)
3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
A study of selected motion picture themes such as women in films, the western, the films of Hitchcock/Chabrol. Check the Class Schedule each semester for the particular subject.

CINE 110 The Non-Fiction Film (3)
3 hours lecture
Recommended preparation: *CINE 100*
Transfer acceptability: *CSU; UC*
A study of the complete spectrum of this vital genre, including the documentary, political propaganda, personal poetic statement, and travel record. The contributions of important filmmakers such as Ken Burns, Robert Flaherty, John Grierson, D.A. Pennebaker, Ricky Leacock, Albert and David Maysles, Michael Moore and Frederick Wiseman will be discussed. Significant non-fiction films from the beginning of film to the present will be screened.

CINE 115 Creative Writing for Television and Cinema (3)
3 hours lecture
Note: *Cross listed as RTV 115*
Transfer acceptability: *CSU*
Instruction and practice in the art of dramatic script writing. Emphasis is placed on the development of the initial story idea into a viable, professional shooting script for TV or film.

CINE 120 Film Criticism (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of the writing of major film critics. The work of Kael, Sarris, Youngblood, Farber, and others will be considered in the attempt to formulate aesthetic standards for cinema. Motion picture viewing assignments will be made in connection with the readings.

CINE 122 Identity in American Film (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A critical study of how American identity is formed in relation to American cinema. Areas of investigation include race, class, gender, sexual orientation, age, and ethnicity. Screening and analysis of films will be undertaken to investigate how select films reflect, celebrate, modify, and criticize mainstream American values. Off campus programs may be required.

CINE 125 Beginning Film and Video Field Production (3)
6 hours lecture/laboratory
Note: *Cross listed as RTV 125*
Transfer acceptability: *CSU; UC – CINE/RTV 125 and 225 combined: maximum credit, one course*
A study of the basic techniques of field production using Super 8 or 16mm film or analog or digital video equipment as applied to various cinematic forms. The student will work with a team on a project through the preproduction, shooting, and postproduction phases of storytelling for the screen.

CINE 225 Intermediate Film and Video Field Production (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV 110 and CINE/RTV 125*
Note: *Cross listed as RTV 225*
Transfer acceptability: *CSU; UC – CINE/RTV 125 and 225 combined: maximum credit, one course*
Principles, techniques, and theory of field production using digital or analog video or 16mm film equipment. Theory and practice of off-line linear or nonlinear editing.

CINE 296 Special Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in CINE 115/RTV 115 or CINE 225/RTV 225*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent work on an original film project. The instructor will approve the work plan and afford personal guidance in its completion. Normally a student will make a fully satisfactory and acceptable screenplay or short film.

Communications (COMM)

See also Cinema, Journalism, and Radio/Television

Contact the Communications Department for further information.
(760) 744-1150, ext. 2440
Office: U-12
For transfer information, consult a Palomar College Counselor.

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Public Relations

Public Relations

This certificate includes a selection of courses that provides academic preparation to individuals who are seeking employment, or are currently employed, in public relations. Major growth in this industry is anticipated.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
COMM 104	Principles of Public Relations	3
GCIP/ R GCIP 149	Page Layout and Design I	4
JOUR 101	News Writing and Reporting	3
JOUR 105	Newspaper Production	3
RTV/ENTT 120	Digital Television Production	3
TOTAL UNITS		**16**

COURSE OFFERINGS

COMM 100 Mass Media in America (3)
3 hours lecture
Transfer acceptability: *CSU; UC – COMM 100 and 105 combined: maximum credit, one course*
A multi media approach to a comparative survey of communication in 20th century America, studying the history, structure, and social impact of television, cinema, radio, journalism, and new forms of communication.

COMM 104 Principles of Public Relations (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of public relations history, theories, and practices with emphasis on applications to business, public agencies and institutions. A practical approach to using the media, creating press releases, organizing and executing campaigns, and promoting favorable relations with various segments of the public.

COMM 105 Race, Gender and Media Effects (3)
3 hours lecture
Transfer acceptability: *CSU; UC – COMM 100 and 105 combined: maximum credit, one course*
An analysis of the changing social and ethical issues that confront both our mass communication systems and the public. The media's role in reflecting, creating, and controlling human values, both personal and social. Examination of images of women, African-Americans, Native Americans, Asian-Americans, and Latinos in the mass media and their sociological consequences.

COMM 144 Exploring the Effects of Media on Young Children (.5)
½ hour lecture
Note: *Cross listed as CHDV 144*
Transfer acceptability: *CSU*
Explores the effects of media consumption on children's social-emotional, physical, and cognitive development. Research behind the risks associated with television and computer use and popular culture saturation for young children. Techniques for addressing media consumption with children, parents and families.

Computer Science and Information Systems - Computer Science (CSCI)

See also CSIS - Database, CSIS - Information Technology, CSIS - Networking, and CSIS - Web Technology

Contact the Computer Science and Information Systems Department for further information.
(760) 744-1150, ext. 2387
Office: ST 6
http://www.palomar.edu/csis

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Computer Science
- Computer Science with Emphasis in Video Gaming

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Computer Science
- Computer Science with Emphasis in Video Gaming

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Java Software Development
- Linux
- Mac Programming
- Video Game Artist
- Video Game Developer

PROGRAMS OF STUDY

Computer Science

Computer Science is the study and design of computer systems: both hardware and software. Computer scientists are primarily concerned with the design of algorithms, languages, hardware architectures, systems software, applications software and tools. Applications range from simple game playing to the control of space vehicles, power plants and factories, from banking machines to intelligent medical diagnosis systems. Computer Science professionals are concerned with the creation of computer and information systems for the benefit of society.

Emphasis in the Computer Science program is placed on the ability to solve problems and think independently. The program offers a foundation in data structures, computer architecture, software design, algorithms, programming languages and object-oriented programing. See a Counselor for additional university transfer requirements in this major.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSCI 108	Survey of Computer Science	4
CSCI 110	Programming for Computer Science	4
CSCI 210	Data Structures	4.5
CSCI 212	Machine Organization and Assembler Language	4
CSCI 220	C Programming	4
CSCI 222	C++ and Object-Oriented Programming	4.5
CSCI 230	Java GUI Programming	3
Group One Electives (Select 3 courses)		
CSCI 130	Linux Fundamentals	3
CSCI 240	Windows API Programming	4
CSCI 260	Video Game Programming I	4
CSCI 270	Mac OS Cocoa Programming	3
CSDB 140	Introduction to Oracle	3
CSIT 180	C# Programming I	3
CSIT 290	Systems Analysis and Design	4
CSNT 111	Networking Fundamentals	4
Group Two Electives (Select 1 Course)		
CSCI 170	BSD Unix for Mac	3
CSCI 171	Mac OS AppleScripting	2.5
CSCI 172	Objective-C Programming for Mac	3
CSCI 271	OpenGL for Mac OS	3
CSCI 275	iPhone SDK Programming	3
CSCI 132	Linux Shell Scripting	3
CSCI 232	Java Mobile Programming	3
MATH 245	Discrete Mathematics	3
TOTAL UNITS		**39.5 – 43**

Computer Science with Emphasis in Video Gaming

Computer Science is the study and design of computer systems: both hardware and software. Computer scientists are primarily concerned with the design of algorithms, languages, hardware architectures, systems software, applications software and tools. Applications range from simple game playing to the control of space vehicles, power plants and factories, from banking machines to intelligent medical diagnosis systems. Computer Science professionals are concerned with the creation of computer and information systems for the benefit of society.

Emphasis in the Computer Science program is placed on the ability to solve problems and think independently. The program offers a foundation in data structures, computer architecture, software design, algorithms, programming languages, and object-oriented programming. This program also introduces students to the video game industry, video game design and programming.

See a Counselor for additional university transfer requirements in this major.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSCI 108	Survey of Computer Science	4
CSCI 110	Programming for Computer Science	4
CSCI 210	Data Structures	4.5
CSCI 212	Machine Organization and Assembler Language	4
CSCI 220	C Programming	4
CSCI 222	C++ and Object-Oriented Programming	4.5
CSCI 230	Java GUI Programming	3
Required Video Game Courses		
CSCI 160	Overview of the Video Game Industry	4
CSCI 161	Video Game Design	4
CSCI 260	Video Game Programming I	4
CSCI 261	Video Game Programming II	4
Electives (select 1 course)		
CSDB 140	Introduction to Oracle	3
CSIT 290	Systems Analysis and Design	4
CSNT 111	Networking Fundamentals	4
TOTAL UNITS		**47 - 48**

Java Software Development

The Java Software Development certificate program is designed to introduce the fundamental concepts of object-oriented programming and the Java programming language along with standard Java application programming interface (API) packages. Learn to develop applications that run on servers as well as cross-platform applications (applications that can run on PCs, PDAs, or other devices). Gain an understanding of data structures, functionality, and Java's user-friendly design tools.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSCI 110	Programming for Computer Science	4
CSCI 210	Data Structures	4.5
CSCI 230	Java GUI Programming	3
CSCI 232	Java Mobile Programming	3
CSWB 270	Java Servlets and JSPs	3
TOTAL UNITS		**17.5**

Linux

This certificate program in Linux/UNIX is designed for those currently in the computer industry who want to upgrade their skills, and for those with basic computer literacy who want to enter this fast-growing field. Fluency in Linux/UNIX can make the difference in winning a job or promotion, as more personnel directors regard knowledge and fluency in Linux/UNIX principles as key criteria for job recruitment and selection.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSCI 130	Linux Fundamentals	3
CSCI 132	Linux Shell Scripting	3
CSNT 140	Linux Administration	3
CSNT 141	Linux Networking and Security	3
CSWB 160	Perl Programming	2
TOTAL UNITS		**14**

Mac Programming

The Mac Programming certificate is designed for those wishing to explore Mac OS technologies. The Unix foundation of Mac OS, along with its powerful native application environments, cutting-edge development tools, and support of open source and open standards—make it a powerful, stable, and versatile development environment, capable of supporting development for mutliple deployment targets.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSCI 170	BSD Unix for Mac	2
CSCI 172	Objective-C Programming for Mac	3
CSCI 270	Mac OS Cocoa Programming	3
CSCI 271	OpenGL for Mac OS	3
CSCI 275	iPhone SDK Programming	3
TOTAL UNITS		**14**

Video Game Artist

This certificate program introduces students to the video game industry, video game design, and the creation of both 2D and 3D artwork for video games.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSCI 160	Overview of the Video Game Industry	4
CSCI 161	Video Game Design	4
ARTI 246 or	Digital 3D Design and Modeling	
DT 180 or	3D Studio Max – Intro 3D Modeling/Animation	
DT 182	3D Studio Max – Adv 3D Modeling/Animation	3
ARTD 220 or	Motion Design	
ARTI 247 or	Digital 3D Design and Animation	
DT 184 or	Real Time 3D Technical/Game Animation	
GCMW 204	Motion Graphics for Multimedia	2 - 4
TOTAL UNITS		**13 - 15**

Video Game Artist Certificate of Proficiency is also listed under Graphic Communications - Multimedia and Web.

Video Game Developer

The Video Game Developer certificate program introduces students to the video game industry, video game design and programming.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSCI 160	Overview of the Video Game Industry	4
CSCI 161	Video Game Design	4
CSCI 260	Video Game Programming I	4
CSCI 261	Video Game Programming II	4
TOTAL UNITS		**16**

COURSE OFFERINGS

CSCI 108 Survey of Computer Science (4)
3½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU; UC – CSCI 108 and 110 combined: maximum credit, one course*
An overview of the discipline of computer science including such topics as the history of computer science; machine architecture; data storage and manipulation; operating software engineering; data structures; database and information retrieval; data communications; artificial intelligence; theory of computation; social legal and ethical issues. Includes hands-on laboratory experience reinforcing the lecture material.

CSCI 110 Programming for Computer Science (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 108*
Transfer acceptability: *CSU; UC*
Introduces object-oriented programming and design using Java. Focuses on implementation and testing of software in a platform-independent, event-driven, graphical user interface environment. Covers basic concepts of data representation, user interface design, and software engineering.

CSCI 130 Linux Fundamentals (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

An introduction to fundamental end-user and administrative tools in Red Hat Enterprise Linux, designed for students with little or no command-line Linux or UNIX experience.

CSCI 132 Linux Shell Scripting (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 130*
Transfer acceptability: *CSU*
Intermediate concepts of shell script programming, advanced utilities, file management, and alternative editors. Includes usage of sed (stream editor), awk (a UNIX/Linux scripting language), and graphical user interfaces. Introduction to UNIX/Linux networking concepts.

CSCI 146 FORTRAN 90 for Mathematics and Science (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 135 or MATH 110 and 115, or a passing grade on the appropriate placement test*
Note: *Cross listed as Math 146*
Transfer acceptability: *CSU; UC*
Programming in FORTRAN 90 to solve typical problems in mathematics, computer science, physical sciences, and engineering. Programming is done on a PC.

CSCI 160 Overview of the Video Game Industry (4)
4 hours lecture
Transfer acceptability: *CSU*
Survey of the historical, technological, business, social and psychological aspects of the video game industry. Intended for those considering a career in the video game industry, or those with a strong interest in video games and how they are made.

CSCI 161 Video Game Design (4)
4 hours lecture
Transfer acceptability: *CSU*
An introduction to video game design, including the study of various genres of games, and the preparation of a game design document. Intended for those considering a career in the video game industry, or those with a strong interest in video games and how they are made.

CSCI 170 BSD Unix for Mac (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Introduction to BSD 4.3 UNIX (bash, bourne, tsh, csh) for command line terminal access and shell scripting on a Macintosh system.

CSCI 171 Mac OS AppleScripting (2.5)
2 hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Introduction to scripting using Apple Inc.'s AppleScript Studio. Includes hands-on laboratory experience reinforcing the lecture material.

CSCI 172 Objective-C Programming for Mac (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Prepares students for application development on the iPhone and Macintosh platforms. Students should have some familiarity with a formal programming language.

CSCI 197 Topics in Computer Science (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Topics in Computer Science. See class schedule for specific topic offered. Course title will designate subject covered.

CSCI 210 Data Structures (4.5)
4 hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 110*
Transfer acceptability: *CSU; UC*
A systematic study of data structures, including arrays, stacks, recursion, queues, linear and non-linear linked lists, binary trees, hashing, comparative study of searching and sorting algorithms, graphs, Huffman codes, introductory analysis of algorithms, introduction to the complexity of algorithms including big "O" notation, time and space requirements, and object-oriented design of abstract data types. Focus on object-oriented programming and its principles of objects, classes, encapsulation, inheritance and its relationship to the Java programming language. Includes hands-on laboratory experience reinforcing the lecture material.

CSCI 212 Machine Organization and Assembler Language (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 110*
Transfer acceptability: *CSU; UC*
An introduction to Assembler Language programming. Language syntax is covered, together with a study of the instruction set mnemonics, segment, index, pointer, general purpose and flag registers. A variety of memory addressing techniques will be covered, as well as stack operations, particularly those associated with passing parameters to subroutine calls. Also includes I/O to screen, printer, and disk interfaces. Emphasis will be placed on interaction between the student's code and the operating system's supplied functions for I/O to peripheral devices. Use of editor and debugging tools will also be addressed.

CSCI 220 C Programming (4)
3½ hours lecture- 1½ hours laboratory
Transfer acceptability: *CSU; UC*
An introduction to the C programming language emphasizing top-down design and principles of structured programming. Includes hands-on laboratory experience reinforcing the lecture material. Language syntax is covered, together with operators, standard control structures, functions, input/output, arrays, strings, file manipulation, preprocessor, pointers, structures and dynamic variables.

CSCI 222 C++ and Object Oriented Programming (4.5)
4 hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 110 or CSCI 220*
Transfer acceptability: *CSU; UC*
Detailed study of the C++ programming language and its support for data abstraction and object-oriented programming. Presents an introduction to the fundamental elements of object-oriented programming including encapsulation, classes, inheritance, polymorphism, templates, and exceptions.

CSCI 230 Java GUI Programming (3)
2 hours lecture- 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 210*
Transfer acceptability: *CSU*
Graphical User Interface programming using Java. Emphasizing event-driven programming and the code to create GUI components such as buttons, text area, scrollable views. Includes hands-on laboratory experience reinforcing the lecture material.

CSCI 232 Java Mobile Programming (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 230*
Transfer acceptability: *CSU*
Focus on Java programming for mobile devices, using Java's principles of objects, classes, encapsulation, inheritance, and simple graphical user interfaces suitable for various mobile technologies. Use the principles of modularity, data abstraction, abstract data types as they apply to programs developed using the Java Mobile Environment's packages. Focus on the definition, implementation, and applications of simple Java programs using this environment. Includes hands-on laboratory experience reinforcing the lecture materials.

CSCI 240 Windows API Programming (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 220*
Transfer acceptability: *CSU*
An introduction to the fundamental concepts of Windows programming which will enable students to develop Windows applications using a graphical user interface. Includes a detailed study of the Windows Application Programming Interface.

CSCI 242 Windows MFC Programming (3)
3 hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 222*
Transfer acceptability: *CSU*
Windows programming using the WIN32 API for writing applications that use multitasking, threads, synchronization, and structured exception handling. Covers implementation of Dynamic Link Libraries (DLLs), Graphic Device Interface (GDI) optimization, and creation of Help files. Includes a detailed study of the Microsoft Foundation Class (MFC) Library. Presents techniques to add Object Linking and Embedding (OLE) functionality to Windows applications.

CSCI 260 Video Game Programming I (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 222*
Note: *May be taken 4 times; maximum of 4 completions in any combination of CSCI 260, 261*
Transfer acceptability: *CSU*
Introduction to the programming of video games. Course will explore 3D game development with Microsoft's DirectX 9.0. Students learn how to create a 3D game from scratch. They learn the basics of designing and using a 3D engine. Includes hands-on laboratory experience reinforcing the lecture, text, and course materials.

CSCI 261 Video Game Programming II (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 260*
Note: *May be taken 4 times; maximum of 4 completions in any combination of CSCI 260, 261*
Transfer acceptability: *CSU*
Builds on basic 3D game programming skills acquired during Video Game Programming I. Focuses on sound, input, networking and methods such as artificial intelligence to drive these games. Includes hands-on laboratory experience reinforcing the lecture, text and course materials.

CSCI 270 Mac OS Cocoa Programming (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 110 or CSCI 220*
Transfer acceptability: *CSU*
Introduction to programming using Objective-C language, Apple's X-Code and Interface Builder for creating applications targeting the Macintosh platform with event-driven structures that support the development of graphical user interfaces. Includes hands-on laboratory experience reinforcing the lecture material.

CSCI 271 OpenGL for Mac OS (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 270*
Transfer acceptability: *CSU*
Macintosh OS X Cocoa Software Development Environment. The OpenGL frameworks are geared primarily toward game development or applications that require high frame rates. OpenGL is a C-based interface used to create 2D and 3D content on Macintosh desktop computers. iPhone OS supports OpenGL drawing through the OpenGL ES framework, which provides support for both the OpenGL ES 2.0 and OpenGL ES v1.1 specifications. OpenGL ES is designed specifically for use on embedded hardware systems and differs in many ways from desktop versions of OpenGL.

CSCI 275 iPhone SDK Programming (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 172*
Transfer acceptability: *CSU*
Focus on the tools and APIs required to build applications for the iPhone platform using the iPhone SDK. User interface designs for mobile devices and unique user interactions using multitouch technologies. Object-oriented design using model-view-controller pattern, memory management, and Objective-C programming language. iPhone APIs and tools including Xcode, Interface Builder and Instruments on Mac OS X.

CSCI 295 Directed Study in Computer Science (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/director*
Note: *May be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus*
Designed for the student who has demonstrated a proficiency in computer science subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

Computer Science and Information Systems - Database (CSDB)

See also CSIS - Computer Science, CSIS - Information Technology, CSIS - Networking, and CSIS - Web Technology

Contact the Computer Science and Information Systems Department for further information.
(760) 744-1150, ext. 2387
Office: ST 6
http://www.palomar.edu/csis

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Microsoft SQL Database Administrator
- Oracle Database

PROGRAMS OF STUDY

Microsoft SQL Database Administrator

Microsoft SQL Database Administrator is a validation program that provides a reliable measure of technical proficiency and expertise in implementation and administration of Microsoft SQL Server™ databases.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSDB 210	SQL Server Administration	3
CSDB 220	SQL Server Programming	3
CSNT 111	Networking Fundamentals	4
CSNT 121	Windows Server	3
CSNT 221	Windows Infrastructure Administration	3
TOTAL UNITS		**16**

Oracle Database

Oracle is the most widely used relational database management system in the world. This certificate offers a series of courses designed to provide the fundamentals to become successful in the use of this powerful database system.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSDB 140	Introduction to Oracle	3
CSDB 240	Oracle DBA I	3
CSDB 241	Oracle DBA II	3
CSDB 250	Oracle Performance Tuning	3
Electives (Select 1 course)		
CSDB 150	Oracle Data Base Design	3
CSDB 260	Oracle PL/SQL Programming	3
TOTAL UNITS		**15**

COURSE OFFERINGS

CSDB 110 Introduction to SQL (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Intended for individuals who want to learn how to search for and manipulate data in a database, create tables and indexes, handle security, control transaction processing, and learn the basics of how to design a database.

CSDB 120 SQL Database Design (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 110*
Transfer acceptability: *CSU*
Provides training in administering and implementing Microsoft SQL Server.

CSDB 140 Introduction to Oracle (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
An introduction to relational database concepts including the design and creation of database structures to store, retrieve, update and display data.

CSDB 150 Oracle Database Design (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 140*
Transfer acceptability: *CSU*
A top-down, systematic approach to the development of Oracle relational databases.

CSDB 210 SQL Server Administration (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 110*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to administer and troubleshoot information systems that incorporate Microsoft SQL Server Enterprise Edition.

CSDB 220 SQL Server Programming (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 120*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to design, implement, and program database solutions by using Microsoft SQL Server.

CSDB 240 Oracle DBA I (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 140*
Transfer acceptability: *CSU*
Design, create, and maintain an Oracle database; gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another; and learn how to create an operational database and properly manage the various structures in an effective and efficient manner. Topics are reinforced with structured hands-on practices.

CSDB 241 Oracle DBA II (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 240*
Transfer acceptability: *CSU*
Transporting data between databases, and the utilities to perform these activities. Introduction to networking concepts and configuration parameters, as well as how to solve some common network problems. In hands-on exercises, configure network parameters so that database clients and tools can communicate with the Oracle database server. Addresses backup and recover techniques, and examines various backup, failure, restore and recovery scenarios. Examine backup methodologies based on business requirements in a mission critical enterprise. Use multiple strategies and Oracle Recover Manager to perform backups, and restore and recover operations.

CSDB 250 Oracle Performance Tuning (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 240*
Transfer acceptability: *CSU*
Introduction to the importance of good initial database design and the method used to tune a production Oracle 9i database. The focus is on database and instance tuning rather than specific operating system performance issues. Practical experience tuning an Oracle database. Recognize, troubleshoot, and resolve common peformance related problems in administering an Oracle database.

CSDB 260 Oracle PL/SQL Programming (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSDB 140*
Transfer acceptability: *CSU*
Learn the Oracle PL/SQL language, a flexible procedural extension to SQL, which increases productivity, performance, scalability, portability and security. Use PL/SQL's tight integration with Oracle database that allows application developers to build and deploy distributed applications with considerable flexibility. Learn how to utilize advanced techniques to design PL/SQL applications to solve complex business problems.

Computer Science and Information Systems - Information Technology (CSIT)

See also CSIS - Computer Science, CSIS - Database, CSIS - Networking, and CSIS - Web Technology

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Office: ST 6
http://www.palomar.edu/csis

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Information Technology

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Information Technology

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Microsoft Office User Specialist
• Visual Basic
• Web 2.0

PROGRAMS OF STUDY

Information Technology

This program prepares students for employment in information systems applications development in business and industry. The focus is on developing skills in programming languages, Internet, spreadsheets, databases, presentation graphics, word processing, in systems analysis and design, project management, and database design. See a counselor for additional university transfer requirements in this major.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSIT 105	Computer Concepts and Applications	3
CSIT 120/ R CSIS 120	Computer Applications	3
CSIT 170	Visual Basic I	4
CSIT 290	Systems Analysis and Design	4
CSDB 110 or	Introduction to SQL	3
CSDB 140	Introduction to Oracle	3
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	4
CSWB 110/ R CSIS 110	Web Site Development with XHTML	3
Electives (Select 3 courses)		
CSIT 70	Web 2.0 – The Web's Edge	3
CSIT 121	Advanced Computer Applications	3
CSIT 180	C# Programming I	3
CSIT 270	Visual Basic II	4
CSCI 130	Linux Fundamentals	3
CSDB 120 or	SQL Database Design	3
CSDB 150	Oracle Database Design	3

CSWB 120	JavaScript	3
CSWB 130	Advanced Web Site Development	3
CSWB 150	PHP with MySQL	3
CSWB 170	Java for Information Systems	2.5
TOTAL UNITS		**36.5 - 37.5**

Microsoft Office User Specialist

The Microsoft Office User Specialist (MOUS) Program is a validation program that provides proof of proficiency in Microsoft Office applications. It is available for Microsoft Office applications at both Proficient and Expert User levels. As a general rule of thumb, Proficient Specialists can handle a wide range of everyday tasks with ease. Expert Specialists are expected to do all those everyday tasks, plus handle more complex assignments that require more advanced formatting and functionality.

Users who attain Expert Specialist status on all five core Office applications (Word, Excel, Access, PowerPoint and Outlook) qualify to take the Microsoft Office Integration Exam. Passing this exam demonstrates that the user is not only an expert in the individual Office products, but is also skilled in integrating them into a cohesive whole. This entitles the user to be called a Microsoft Office Expert.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
CSIT 131	Word	1.5
CSIT 132	Excel	1.5
CSIT 133	PowerPoint	1.5
CSIT 134	Outlook	1.5
CSIT 135	Access	1.5
TOTAL UNITS		**7.5**

Visual Basic

This certificate is designed for individuals interested in acquiring the advanced programming skills necessary to design and implement Visual Basic programs.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
CSIT 170	Visual Basic I	4
CSIT 270	Visual Basic II	4
CSIT 271	Visual Basic III	4
CSWB 210	Active Server Pages	3
TOTAL UNITS		**15**

Web 2.0

Program will offer students the opportunity to explore cutting edge technologies of the World Wide Web.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
CSIT 70	Web 2.0 – The Web's Edge	3
CSIT 74	Gmail	1.5
CSIT 75	Google Docs	2
CSIT 77	Google Apps I	2
CSIT 78	Google Apps II	2
TOTAL UNITS		**10.5**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CSIT 50 Practical PC (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 3 times*
An introduction to the personal computer. Focus is on the basic skills to use and manage your home computer. Topics include: PC Basics; Windows Operating System; Computer Files; the Internet, the Web and E-mail; Application Software; Graphics, Sound and Video; and simple upgrades and expansion.

CSIT 60 Introduction to Online Learning (1.5)
1 hour lecture - 1½ hours laboratory
Introduction to developing the skills necessary to succeed in an online or in-house course using modern computer technology. Learn and apply the basics of Windows environment, data organization and management, Blackboard Academic Suite, E-Services, the Internet, the World Wide Web, E-mail, and additional tools to enable successful use of electronic tools in a classroom.

CSIT 70 Web 2.0 - The Web's Edge (3)
2½ hours lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
Surveys new technology at the cutting edge of the World Wide Web. Explores Web 2.0 Rich Internet Applications, Services Oriented Architecture, and Social Web applications.

CSIT 74 Gmail (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
Introduces Google's webmail services including email, instant messaging, and calendar features.

CSIT 75 Google Docs (2)
1 hour lecture - 3 hours laboratory
Note: *May be open entry/open exit*
Introduces Google Docs which allows the creation of documents, spreadsheets, and presentations online.

CSIT 77 Google Apps I (2)
1 hour lecture - 3 hours laboratory
Note: *May be open entry/open exit*
Introduces Google's online applications such as Gmail, Google Talk, Google Calendar, Google Docs, and Google Page Creator.

CSIT 78 Google Apps II (2)
1 hour lecture - 3 hours laboratory
Note: *May be open entry/open exit*
Introduces Google online applications such as Google Search, Google Maps, Google Earth, Blogger, Groups, Orkut, and Photos.

CSIT 105 Computer Concepts and Applications (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU; UC – no credit if taken after CSCI 108 or 110*
The study of computer concepts and basic proficiency in modern application software. Computer concepts will focus on basic terminology; computer literacy; information literacy; hardware; software; information systems; state-of-the-art technology; structured design techniques, overview of the computer industry; ethics and current issues including virus protection and prevention. Hands-on introduction to Windows operating system and application software including basic proficiency of the Internet; browsers and e-mail. The Microsoft Office Suite will be taught using Word, Excel, Access and PowerPoint.

CSIT 120 Computer Applications (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as R CSIS 120; may be taken 4 times; maximum of 4 completions in any combination of CSIT/R CSIS 120, CSIT 121*
Transfer acceptability: *CSU*
Hands-on experience with microcomputers and microcomputer applications featuring the use of Windows, word processing, spreadsheet, database, and presentation graphics software. The Microsoft Office Suite will be taught using Word, Excel, Access and PowerPoint.

CSIT 121 Advanced Computer Applications (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSIT/R CSIS 120*
Transfer acceptability: *CSU*
Hands-on experience with advanced microcomputer applications featuring the

use of word processing, spreadsheet, database and presentation graphics software. The Microsoft Office Suite will be taught using Word, Excel, Access and PowerPoint.

CSIT 130 Windows Vista (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Overview of Windows Vista operating system. Explore the resources provided by the Windows Vista operating system; manage files, documents and folders; run programs and gadgets; explore communication and scheduling; explore the Internet; set up printers; customize Windows Vista; maintain security; and manage Windows Vista.

CSIT 131 Word (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Intended for individuals seeking the fundamental and advanced skills of Microsoft Word word processing software. Prepares individuals who are seeking to become a Microsoft Proficient Specialist and Microsoft Word Expert Specialist.

CSIT 132 Excel (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Intended for individuals seeking the fundamental and advanced skills of Microsoft Excel spreadsheet software. Prepares individuals who are seeking to become a Microsoft Excel Proficient Specialist and Microsoft Excel Expert Specialist

CSIT 133 PowerPoint (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Intended for individuals seeking the fundamental and advanced skills of Microsoft PowerPoint graphics software. Prepares individuals who are seeking to become a Microsoft PowerPoint Expert Specialist.

CSIT 134 Outlook (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction of fundamental and advanced skills of Microsoft Outlook software. Helps prepare individuals who are seeking to become a Microsoft Outlook Proficient Specialist and Microsoft Outlook Expert Specialist.

CSIT 135 Access (1.5)
1 hour lecture - 1½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Intended for individuals seeking the fundamental and advanced skills of Microsoft Access database software. Helps prepare individuals who are seeking to become a Microsoft Access Proficient Specialist and Microsoft Access Expert Specialist.

CSIT 140 Online Social Networks (1.5)
1 hour lecture - 1½ hours laboratory
Focuses on the utilization of social networks to connect with colleagues, customers, family, and friends as well as the dangers and benefits of online social networking. Additional focus on building professional communication channels with Facebook and Twitter utilizing third-party tools. Other social networking forms, such as online gaming and alternate lives in virtual worlds will be explored.

CSIT 170 Visual Basic I (4)
3½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Design, create, test and run computer applications using Visual Basic. Emphasis is on learning the fundamentals of the Visual Basic interface and how to solve problems using structured design logic and the sequence, decision and repetition procedural language control structure. Selected additional features of the Visual Basic interface and procedural language are included to provide a foundation for the study of more advanced courses.

CSIT 180 C# Programming I (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU; UC*
Provides the knowledge and skills necessary to use the C# programming language in the .NET Framework. Build Windows applications and server-side programs; access data with ADO.NET; use C# with Web Forms and .NET CLR.

CSIT 197 Topics in Information Technology (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Information Technology. See class schedule for specific topic offered. Course title will designate subject covered.

CSIT 270 Visual Basic II (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSIT 170*
Transfer acceptability: *CSU*
An intermediate-level programming language which provides for building special purpose Windows applications using the Graphical User Interface of Windows. Includes extensive practice using programming logic control structures in designing algorithms and a wide array of Visual Basic objects in implementing the three-step approach to building Windows applications in Visual Basic.

CSIT 271 Visual Basic III (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSIT 270*
Transfer acceptability: *CSU*
Advanced course in Visual Basic programming. Special emphasis will be placed on the application of the Visual Basic language to solve business problems including requirements definition, design, construction, testing, and documentation. Multiple forms, objects, controls, object linking and embedding (OLE), and the use of the data control object to interface with databases external to Visual Basic will be covered.

CSIT 280 C# Programming II (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSIT 180*
Transfer acceptability: *CSU; UC*
Provides intermediate-level knowledge and skills necessary to use the C# programming language. Topics include language syntax, data types, operators, exception handling, casting, string handling, data structures, collection classes and delegates. Programming of windows-based applications is presented along with object-oriented programming that includes classes, methods, polymorphism and inheritance. Event-driven programming is discussed along with the C# development and execution environment.

CSIT 290 Systems Analysis and Design (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSIT 170 or CSCI 110 or CSCI 220*
Transfer acceptability: *CSU; UC*
Specific projects, problems, and systems. Application of appropriate programming languages and the use of analytical tools in solving case studies and problems.

CSIT 295 Directed Study in Information Technology (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/director*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Designed for the student who has demonstrated a proficiency in Information Technology subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

Computer Science and Information Systems - Networking (CSNT)

See also CSIS - Computer Science, CSIS - Database, CSIS - Information Technology, and CSIS - Web Technology

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Office: ST 6
http://www.palomar.edu/csis

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Computer Network Administration with Emphasis in Cisco and Linux Management
- Computer Network Administration with Emphasis in Cisco and Microsoft Management
- Computer Network Administration with Emphasis in Microsoft and Linux Management

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Computer Network Administration with Emphasis in Cisco and Linux Management
- Computer Network Administration with Emphasis in Cisco and Microsoft Management
- Computer Network Administration with Emphasis in Microsoft and Linux Management

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Cisco
- Desktop Support Specialist - MCSA
- Network Engineer - MCSE

PROGRAMS OF STUDY

Cisco

The Cisco networking program is designed to teach students the skills needed to design, build, and maintain small to medium-sized networks. This provides students the opportunity to enter the workforce and/or further their education and training in the computer-networking field.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSNT 160	Cisco Networking Fundamentals	3
CSNT 161	Cisco Router Configuration	3
CSNT 260	Cisco Advanced Routing/Switching	3
CSNT 261	Cisco WAN Design/Support	3
TOTAL UNITS		12

Computer Network Administration with Emphasis in Cisco and Linux Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Cisco and Linux/Unix. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configuration, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	4
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3
CSNT 140	Linux Administration	3
CSNT 141	Linux Networking and Security	3
CSNT 160	Cisco Networking Fundamentals	3
CSNT 161*	Cisco Router Configuration	3
CSNT 180	Wireless Networking	3
CSNT 181	Hacker Prevention/Security	3
CSNT 260	Cisco Advanced Routing and Switching	3
CSNT 261	Cisco Wide Area Network Design and Support	3
CSCI 108	Survey of Computer Science	4
CSCI 130	Linux Fundamentals	3
TOTAL UNITS		**45**

* Note: CSNT 160 is a prerequisite for CSNT 161

Computer Network Administration with Emphasis in Cisco and Microsoft Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Cisco and Microsoft. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configuration, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	4
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3
CSNT 160	Cisco Networking Fundamentals	3
CSNT 161*	Cisco Router Configuration	3
CSNT 180	Wireless Networking	3
CSNT 181	Hacker Prevention/Security	3
CSNT 221	Windows Infrastructure Administration	3
CSNT 230	Design Windows Active Directory & Infrastructure	2.5
CSNT 260	Cisco Advanced Routing and Switching	3
CSNT 261	Cisco Wide Area Network Design and Support	3
CSCI 108	Survey of Computer Science	4
CSCI 130	Linux Fundamentals	3
TOTAL		**44.5**

* Note: CSNT 160 is a prerequisite for CSNT 161

Computer Network Administration with Emphasis in Microsoft and Linux Management

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the network technologies produced by Microsoft and Linux/UNIX. Specific learning outcomes include developing team dynamics in the following skills: Network Media Installation, LAN and WAN Design, Network Management, Fundamentals of Networking Devices, Client Hardware Repair, Network Operating Systems Installation and Configuration, Networking Device Operating Systems, Installation and Configura-

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

tion, Client Operating Systems Installation and Configuration, Network Security, Remote Access, Routing Principles and Configuration, and Maintaining a Corporate Network.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111 or	Networking Fundamentals	4
CSNT 160	Cisco Networking Fundamentals	3
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3
CSNT 140	Linux Administration	3
CSNT 141	Linux Networking and Security	3
CSNT 180	Wireless Networking	3
CSNT 181	Hacker Prevention/Security	3
CSNT 221	Windows Infrastructure Administration	3
CSNT 224	Active directory Services Administration	3
CSCI 108	Survey of Computer Science	4
CSCI 130	Linux Fundamentals	3
Group One Electives (Select 2 courses)		
CSNT 222	Plan and Manage a Windows Infrastructure	3
CSNT 230	Design Windows Active Directory & Infrastructure	2.5
CSNT 231	Design Windows Network Security	2.5
Group Two Electives (Select 1 course)		
CSNT 235	Microsoft Exchange Server	3
CSDB 120	SQL Database Design	3
CSDB 210	SQL Server Administration	3
TOTAL UNITS		**46 - 47.5**

Note: By adding CSNT 161, CSNT 260 and CSNT 261 to your Microsoft and Linux Management Emphasis you can also earn a Certificate of Proficiency in Cisco in addition to your Computer Network Administration A.A. Degree.

Desktop Support Specialist - MCSA

Desktop support specialists are qualified to successfully troubleshoot, repair and upgrade the desktop computer including hardware and software in a Windows networked environment. The courses in this certificate help prepare students to take the Microsoft exams to earn an MCSA.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	4
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3
Electives (Select 1 course)		
CSNT 140	Linux Administration	3
CSNT 221	Windows Infrastructure Administration	3
CSNT 222	Plan and Manage a Windows Infrastructure	3
CSNT 224	Active Directory Services Administration	3
TOTAL UNITS		**17**

Network Engineer - MCSE

Network Engineers are qualified to effectively plan, implement, maintain, troubleshoot and support networks in a wide range of computing environments using Microsoft Windows. The courses in this certificate help students prepre to take the Microsoft exams to earn an MCSE.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSNT 121	Windows Server	3
CSNT 221	Windows Infrastructure Administration	3
CSNT 222	Plan and Manage a Windows Infrastructure	3
CSNT 224	Active Directory Services Administration	3
Group One Electives (Select 1 course)		
CSNT 230	Design Windows Active Directory & Infrastructure	2.5
CSNT 231	Design Windows Network Security	2
Group Two Electives (Select 1 course) It must not already be taken from Group One.		
CSNT 141	Linux Networking and Security	3
CSNT 230	Design Windows Active Directory & Infrastructure	2.5
CSNT 231	Design Windows Network Security	2.5
CSNT 235	Microsoft Exchange Server	2
CSDB 210	SQL Server Administration	3
CSDB 220	SQL Server Programming	3
TOTAL UNITS		**16 - 17**

COURSE OFFERINGS

CSNT 110 Hardware and O.S. Fundamentals (4)
3½ hours lecture - 1½ hours laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to build a foundation in computer hardware and operating systems. Includes P.C. hardware and operating system fundamentals; installation, configuration and upgrading; diagnosing and troubleshooting; preventative maintenance; motherboards, processors, and memory; printers; and basic networking including network operating systems.

CSNT 111 Networking Fundamentals (4)
3½ hours lecture - 1½ hours laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to build a solid foundation in computer networking. Includes networking fundamentals, the OSI model, subnetting, features and functions of networking components, and the skills needed to install, configure, and troubleshoot basic networking hardware peripherals and protocols.

CSNT 120 Windows Client (3)
2½ hours lecture - 2 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to install and configure Microsoft Windows Client on stand-alone computers and on client computers that are part of a network.

CSNT 121 Windows Server (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 120 and A minimum grade of 'C' in CSNT 110 and CSNT 111, or concurrent enrollment in CSNT 110 and CSNT 111*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to install, configure, and administer a Microsoft Windows Server in a Network. Typical network services and applications include file and print, database, messaging, proxy server or firewall, dial-in server, desktop management, and Web hosting.

CSNT 140 Linux Administration (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 130*
Transfer acceptability: *CSU*
For users of Linux (or UNIX) who want to start building skills in systems administration to a level where they can attach and configure a workstation on an existing network.

CSNT 141 Linux Networking and Security (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 140*
Transfer acceptability: *CSU*
A hands on introduction to important administration activities required to manage a Linux network configuration. Course will cover topics configuring TCP/IP, DNS, PPP, send mail, Apache Web Server and the firewall.

CSNT 160 Cisco Networking Fundamentals (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 110*
Recommended preparation: *CSNT 111*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Emphasis on the OSI model and industry standards. Includes network topologies, IP addressing, subnet masks, basic network design and cable installation. This 70 hour course of instruction prepares the student for Cisco certification examination.

CSNT 161 Cisco Router Configuration (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 160*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Development of knowledge and skills to install, configure, customize, maintain and troubleshoot Cisco routers and components. This 70-hour course of instruction prepares the student for Cisco certification examination.

CSNT 180 Wireless Networking (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 110, and CSNT 111 or CSNT 160*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Provides a hands-on guide to planning, designing, installing and configuring wireless LANs that prepares students for the Certified Wireless Network Administrator (CWNA) certification. In-depth coverage of wireless networks with extensive step-by-step coverage of IEEE 802.11 b/a/g/pre-n implementation, design, security, and troubleshooting. Material is reinforced with hands-on projects at the end of each chapter from two of the principal wireless LAN vendors, Cisco and Linksys.

CSNT 181 Hacker Prevention/Security (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 110, and CSNT 111 or CSNT 160*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
In-depth analysis and hands-on experience in PC and network security concepts specific to Microsoft, Unix-based and Cisco systems. Various topics including hacker prevention and intrusion detection, firewall installation and configuration, wireless network security, disaster recovery, access control lists, identification of malicious code, cryptography and forensics. Team dynamics in a lab environment, planning, installing, and configuring various network security elements regarding hardware, software, and media. Understand and demonstrate proper planning and implementation of a secure network, document and offer training to end- users, executives, and human resources on the proper maintenance of a secure network.

CSNT 221 Windows Infrastructure Administration (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 121*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to install, configure, manage, and support a network infrastructure that uses the Microsoft Windows Server products.

CSNT 222 Plan and Manage a Windows Infrastructure (3)
2½ hours lecture- 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 221*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to plan, manage, administer, support, and troubleshoot networks that incorporate Microsoft Windows.

CSNT 224 Active Directory Services Administration (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 121*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to install, configure, and administer Microsoft Windows Active Directory Services. Also focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers.

CSNT 230 Design Windows Active Directory & Infrastructure (2.5)
2 hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 221, 222, and 224*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to design a Microsoft Windows directory services infrastructure in an enterprise network.

CSNT 231 Design Windows Network Security (2.5)
2 hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 221, 222, and 224*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks using Microsoft Windows technologies.

CSNT 235 Microsoft Exchange Server (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 121, 221, and 224*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to implement, administer, and troubleshoot information systems that incorporate Microsoft Exchange Server.

CSNT 260 Cisco Advanced Routing and Switching (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 161*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Development of knowledge and skills to configure advanced routing protocols, Local Area Networks (LANs), and LAN switching. Design and management of advanced networks. This 70-hour course of instruction prepares the student for Cisco certification examination.

CSNT 261 Cisco Wide Area Network Design and Support (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 260*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Development of knowledge and skills to design and configure advanced Wide Area Network (WAN) projects using Cisco IOS command set. This 70-hour course of instruction prepares the student for Cisco certification examination.

Computer Science and Information Systems - Web Technology (CSWB)

See also CSIS - Computer Science, CSIS - Database, CSIS - Information Technology, and CSIS - Networking

Contact the Computer Science and Information Systems Department for further information.
(760) 744-1150, ext. 2387
Office: ST 6
http://www.palomar.edu/csis

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Web Developer with Emphasis in Java/Open Source
- Web Developer with Emphasis in Windows
- Web Server Administrator with Emphasis in Linux
- Web Server Administrator with Emphasis in Windows

PROGRAMS OF STUDY

Web Developer with Emphasis in Java/Open Source

This program includes the Web page design and programming languages that allow a developer to build dynamic Web applications with emphasis in the Java/ Open Source platform.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110/ R CSIS 110	Web Site Development with XHTML	3
CSWB 120	JavaScript	3
CSWB 150	PHP with MySQL	3
CSWB 170	Java for Information Systems	2.5
CSWB 220	Advanced JavaScript and XML (AJAX)	3
Electives (Select 1 course)		
CSWB 130	Advanced Web Site Development	3
CSWB 180	Python Programming	3
CSWB 270	JAVA Servlets and JSPs	3
CSDB 110	Introduction to SQL	3
CSDB 140	Introduction to Oracle	3
TOTAL UNITS		**17.5**

Web Developer with Emphasis in Windows

This program includes the Web page design and programming languages that allow a developer to build dynamic Web applications with emphasis in the Java/ Open Source platform.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110/ R CSIS 110	Web Site Development with XHTML	3
CSWB 120	JavaScript	3
CSWB 130	Advanced Web Site Development	3
CSWB 210	Active Server Pages	3
CSIT 180	C# Programming I	3
TOTAL UNITS		**15**

Web Server Administrator with Emphasis in Linux

This program includes the use and implementation of web-networked environments for the purpose of administering Internet/Intranet applications. Strong emphasis is placed on hands-on server administration, networking, supplemented with web development and design. The student may choose an emphasis on either the Linux/UNIX or Windows platforms.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110	Web Site Development with XHTML	3
CSWB 160	Perl Programming	2
CSCI 130	Linux Fundamentals	3
CSNT 140	Linux Administration	3
CSNT 141	Linux Networking and Security	3
Electives (Select 1 course)		
CSCI 132	Linux Shell Scripting	3
GCMW 217	Online Store Design I	3
CSWB 290	Implementing and Administering Web Servers	3
TOTAL UNITS		**17**

Web Server Administrator with Emphasis in Windows

This program includes the use and implementation of web-networked environments for the purpose of administering Internet/Intranet applications. Strong emphasis is placed on hands-on server administration, networking, supplemented with web development and design.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSWB 110/ R CSIS 110	Web Site Development with XHTML	2
CSDB 210	SQL Server Administration	3
CSNT 120	Windows Client	3
CSNT 121	Windows Server	3
Electives (Select 1 course)		
CSWB 290	Implementing and Administering Web Servers	2.5
CSDB 220	SQL Programming	3
GCMW 217	Online Store Design I	4
TOTAL UNITS		**13.5 - 14**

COURSE OFFERINGS

CSWB 110 Web Site Development with XHTML (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as R CSIS 110, may be taken 3 times*
Transfer acceptability: *CSU*
A foundation course for Internet/Intranet technologies. Skills required to develop and publish web sites utilizing XHTML, including using HTML tables, frames, web page forms, and basic CSS (Cascading Style Sheets).

CSWB 120 JavaScript (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB/R CSIS 110*
Transfer acceptability: *CSU*
Introduces the skills required to design Web-based applications using the JavaScript scripting language such as writing small scripts; working with data types; creating interactive forms using various form objects; and using the advanced features of JavaScript including loops, frames and cookies.

CSWB 130 Advanced Web Site Development (3)
2 hours lecture - 3 hours laboratory
Recommended preparation: *CSWB 110*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Web-based application development using advanced features of HTML, Dynamic HTML, XHTML, and XML.

CSWB 150 PHP with MySQL (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB 110/R CSIS 110*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to use the PHP scripting language to develop dynamic Web-based applications. Topics of study include the fundamentals of the scripting, using PHP with HTML forms, creating functions, and integrating with databases using MySQL.

CSWB 160 Perl Programming (2)
1½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Develops basic competency in the Perl programming language. Topics of study include scalar and array variables, control structures, file I/O, regular expressions and subroutines.

CSWB 170 Java for Information Systems (2.5)
2 hours lecture - 2 hours laboratory
Recommended preparation: *CSWB 120 or CSIT 170*
Transfer acceptability: *CSU*
An introduction to Java programming with emphasis on the syntax and structure of the Java language. Specific topics will include data types, exception handling, object-oriented programming, event-driven programming and an introduction to Java Servlets and JSPs.

CSWB 180 Python Programming (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB 110*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to use the Python programming language to develop software for Internet applications, perform systems programming, and implement user interfaces. Topics of study include the fundamentals of the language, parallel system tools, system tools, graphical user interfaces, network scripting, client-side scripting, and server-side scripting. Also covered are databases and persistence, and data structures.

CSWB 197 Topics in Web Technology (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Web Technology. See class schedule for specific topic offered. Course title will designate subject covered.

CSWB 210 Active Server Pages (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSWB 110 and CSIT 170*
Transfer acceptability: *CSU*
Introduction to the technologies and features in Active Server Pages. Topics include introduction to ASP, Webforms, controls, events, validation, custom controls, data binding, and various methods of code reuse, state management, configuration, caching, and application deployment.

CSWB 220 Advanced JavaScript and XML (AJAX) (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSWB 120*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to use JavaScript, XML, and server-side languages to develop dynamic Web-based applications. Topics of study include the use of asynchronous JavaScript, how to use the Document Object Model, the use of XML in Web page requests, how to use server-side languages (e.g. PHP, Java) to query and return information from a database and how to design and develop new AJAX applications.

CSWB 270 Java Servlets and JSPs (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB 170*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to perform server-side Java programming using Servlets and JSPs, HTML form data, Session Tracking, Cookies, JSP scripting elements, including Applets in JSP documents, using JavaBeans with JSP, and creating custom JSP Tag libraries.

CSWB 290 Implementing and Administering Web Servers (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSNT 121*
Transfer acceptability: *CSU*
Explores issues dealing with building and managing a web server. Topics will include web server and network issues, TCP/IP connectivity, server setup, web site administration, security, Internet commerce, and the function of the Webmaster.

CSWB 295 Directed Study in Web Technology (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/director*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Designed for the student who has demonstrated a proficiency in computer science subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

Construction Inspection (CI)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Construction Inspection

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Construction Inspection

PROGRAM OF STUDY

Construction Inspection

Prepares students for a career as Building Construction Inspectors, or upgrades skills necessary for employment in the building construction trades.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CI 89	Plumbing Codes	2.5
CI 90	Mechanical Codes	2.5
CI 100	Building Codes I	3
CI 101	Building Codes II	3
CI 105	Electrical Codes I	3
CI 106	Electrical Codes II	3
CI 115	Nonstructural Plan Review	3
CI 120	Structural Plan Review	3
CI 125	Plan Reading	3
TOTAL UNITS		**26**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CI 89 Plumbing Codes (2.5)
2½ hours lecture
Note: *May be taken 2 times*
An in-depth study of the fundamental concepts and interpretations of current state adopted plumbing codes. Topics covered include compliance issues, plumbing specifications, basic plumbing principles, and inspection methods and techniques. International Conference of Building Officials (ICBO) revisions every three years.

CI 90 Mechanical Codes (2.5)
2½ hours lecture
Note: *May be taken 2 times*
An in-depth study of the fundamental concepts and interpretations of current state adopted mechanical codes. Topics covered include compliance issues, mechanical specifications, basic mechanical principles, and inspection methods and techniques. International Conference of Building Officials (ICBO) revisions every three years.

CI 100 Building Codes I (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Introduction to building code requirements with an emphasis on minimum construction standards and code enforcement. Code requirements controlling the design, construction, quality of materials, use, occupancy and location of all buildings are evaluated. Revisions to the International Building Code are every three years.

CI 101 Building Codes II (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
A study of the requirements and standards for design, loads, wood, concrete, masonry and steel buildings. The study of exits, roofs, fireplaces, drywall, glass and stucco systems are examined. Interpretation is based on the International Code Council (ICC) building code which is revised every three years.

CI 105 Electrical Codes I (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
The first half of The National Electrical Code reviewed in an explanatory, easy-to-understand, yet in-depth manner. Basic electrical theory as it pertains to building construction is discussed with real-life situations used as examples of Code items and inspection techniques. Prepares students for electrical certification tests based on the building codes (both the ICC and the IAEI certifications), as well as advaning knowledge levels for existing Inspectors.

CI 106 Electrical Codes II (3)
3 hours lecture
Note: *May be taken 2 times*
Prerequisite: *A minimum grade of 'C' in CI 105*
Transfer acceptability: *CSU*
The second half of The National Electrical Code reviewed in an explanatory, easy-to-understand, yet in-depth manner. Basic electrical theory as it pertains to building construction is discussed with real-life situations used as examples of Code items and inspection techniques. Prepares students for electrical certification tests based on the building codes (both the ICC and the IAEI certifications), as well as advancing knowledge levels for existing Inspectors.

CI 115 Nonstructural Plan Review (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
A study of basic methods used by plans examiners to check the nonstructural details of construction drawings in compliance with the international building code. Topics cover analyzing nonstructural details and determining compliance with the minimum requirements for concrete, masonry, wood, and steel structures.

CI 120 Structural Plan Review (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Provides inspectors, contractors, and building department technicians with the basic methods used for structural review of plans for code compliance required before permits can be issued. The structural provisions of the International Building Code will be studied and applied to typical residential and low-rise construction plan examples. The role and responsibilities of the plan check technician in his or her job performance will be defined according to public needs, industry practice, and the Professional Engineers Act.

CI 125 Plan Reading (3)
3 hours lecture
Transfer acceptability: *CSU*
How to read construction drawings and how to establish a systematic method of reviewing plans for compliance with the Uniform Building Code.

CI 197 Construction Inspection Topics (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Construction Inspection. May be repeated with new subject matter. See Class Schedule for specific topic offered. Course title will designate subject covered.

Cooperative Education (CE)

Contact the Cooperation Education Department for further information.
(760) 744-1150, ext. 2354
Office: ST-54

General Cooperative Work Experience

In accordance with Board Policy 4103, the General Cooperative Work Experience Education Program is designed to give job information and experience to those students employed in jobs not related to coursework in school. Employment may be on or off campus; the student may or may not receive pay depending on where the work is performed. The Cooperative Education Coordinator will assist students in obtaining jobs.

STUDENT QUALIFICATIONS: In order to participate in cooperative work experience education students shall meet the following requirements:

1. Complete no less than seven units (summer session, one course) including cooperative work experience education.
2. Have approval of the Cooperative Work Experience Education Coordinator.
3. Have occupational or education goals to which, in the opinion of the Coordinator, the cooperative work experience education will contribute.
4. Pursue a planned program of cooperative work experience education which, in the opinion of the Coordinator, includes new or expanded responsibilities or learning opportunities beyond those experienced during the previous employment.

The number of units received each semester for on the job experience will be based on the total number of hours worked each semester or summer session as follows:

1 unit - 75 paid hours per semester or session; 60 volunteer hours
2 units - 150 paid hours per semester or session; 120 volunteer hours

A maximum of six units may be earned in general cooperative work experience, not to exceed three units each semester. In addition to the hours worked, a student must attend a coordinating class. Topics of discussion in the class include choice of occupation, employee information, job application, human relations, and appearance and personality development as related to employment in the vocational field.

Occupational Cooperative Work Experience

The Occupational Cooperative Work Experience Program is designed to coordinate on the job training and classroom instruction. Supervised employment is related to the occupational goal of the individual student. Employment may be on or off campus; the student may or may not receive pay, depending on where the work is performed. The Cooperative Education Coordinator will assist students in obtaining jobs.

STUDENT QUALIFICATIONS: In order to participate in cooperative work experience education students shall meet the following requirements:

1. Be a legally indentured or certified apprentice.
   OR
2. Complete no less than seven units (summer session, one course) including cooperative work experience education.
   AND
3. Have approval of the Cooperative Work Experience Education Coordinator.
4. Have occupational or education goals to which, in the opinion of the Coordinator, the cooperative work experience education will contribute.
5. Pursue a planned program of cooperative work experience education which, in the opinion of the Coordinator, includes new or expanded
   responsibilities or learning opportunities beyond those experienced during the previous employment.

The number of units received each semester for on the job experience will be based on the total number of hours worked each semester or summer session as follows:

1 unit 75 paid hours per semester or session; 60 volunteer hours
2 units 150 paid hours per semester or session; 120 volunteer hours
3 units 225 paid hours per semester or session; 180 volunteer hours
4 units 300 paid hours per semester or session; 240 volunteer hours

A maximum of sixteen units may be earned in occupational cooperative work experience, not to exceed four units each semester.

COURSE OFFERINGS

CE 100 Cooperative Education (1, 2, 3, 4)
1, 2, 3, or 4 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Supervised on the job training for all occupational students.

CE 105 Job Hunting Techniques (1, 2, 3)
1, 2, or 3 hours lecture
Transfer acceptability: *CSU*
Comprises the changing work ethic, updated labor market information, sources of job leads, job opportunities, job search, resume preparation, development of confidence and sound communication skills, interviewing techniques, attitudinal and motivational behavior necessary during the job campaign, job hunting techniques, and related topics.

CE 110 Cooperative Education – General (2, 3)
2 or 3 hours lecture
Transfer acceptability: *CSU*
Supervised on the job training for all students.

CE 150 Cooperative Education Internship (2, 3)
10 or 15 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Students learn major-specific knowledge and skills at an internship site that will enhance employment. Students design and complete an internship project in consultation with their internship advisor and job site supervisor.

CE 197 Cooperative Education Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Cooperative Education. See Class Schedule for specific topic offered. Course title will designate subject covered.

Counseling (COUN)

See also Disability Resource

Contact the Counseling Department for further information.
(760) 744-1150, ext. 2179
Office: SSC-18A

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

COUN 45 Basic Study Skills (1)
1 hour lecture
Note: *Open entry/Open exit; Pass/No Pass grading only*
Non-degree Applicable
Study improvement techniques, time management techniques, memory and note taking skills, and test taking methods.

COUN 48 Overcoming Test Anxiety (1)
2 hours lecture/laboratory
Note: *Open entry/Open exit; Pass/No Pass grading only*
Non-degree Applicable
Provides instruction in understanding the sources of test anxiety and the techniques for overcoming it.

COUN 49 Introduction to Financial and Academic Resources (.5)
½ hour lecture
Note: *Pass/No Pass grading only*
Non-degree Applicable
Survey of financial and supportive resources available to students including part-time employment. The course content includes an overview of financial aid programs and eligibility requirements, campus support programs, community support services, money management, and educational planning. This course may be used to fulfill the financial aid orientation requirement.

COUN 100 Introduction to Basic Counseling Skills (3)
3 hours lecture
Transfer acceptability: *CSU*
An introduction to the principles and practices of counseling and interviewing. A systematic development of the basic skills essential for effective counseling. Combines informal lecture, videotapes, and role playing interactions. Practicum experience will be required.

COUN 101 Transfer Success (1)
1 hour lecture
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Introduction to the transfer research process designed for planning long term educational and career goals. Students learn how to evaluate universities, and learn specific transfer requirements. Student will research degrees, housing, financial aid, scholarships and supportive services.

COUN 110 College Success (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Provides students with the skills and knowledge necessary to reach their educational goals. Topics include academic learning strategies, college and life skills, diversity awareness and assessment of personal characteristics related to educational success. The role of race, ethnicity, gender, class, sexual orientation and age in higher education and personal identity is a central theme of the course.

COUN 115 Career/Life Planning (3)
3 hours lecture
Note: *May be offered on educational television*
Transfer acceptability: *CSU*
A course designed to motivate the student to take responsibility for the management of his/her life, recognizing the values of planning as a means of coping with uncertainty, and relating work effectively to one's own life.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

COUN 120 Quest for Identity and Life Skills (3)
3 hours lecture
Transfer acceptability: *CSU*
An exploration of the dynamics involved in the development of the individual who is in search of identity and self-discovery. An examination of one's value and belief system will be studied and compared and contrasted with other American subcultures. Emphasis will also be placed on the role of cultural traditions and practices as well as a set of life skills that will serve to empower one's identity and understanding of self within a multicultural society. Examples of life skills include coping with the physiological effects of stress and anxiety, communicating effectively with multicultural groups, goal setting, emotional development, problem solving, critical thinking skills, and self-esteem.

COUN 165 Career Search (1)
1 hour lecture
Note: *May be Open entry/Open exit; Pass/No Pass grading only*
Transfer acceptability: *CSU*
Designed to assist students in selecting a career goal. This will be accomplished by identifying the students' career interests, personality type, work values, and transferable skills as they relate to occupations.

COUN 170 Major Search (1)
1 hour lecture
Note: *May be Open entry/Open exit; Pass/No Pass grading only*
Transfer acceptability: *CSU*
This course is designed to assist students to select a major goal and create an educational plan. This will be done by identifying academic interests and through researching career options.

COUN 180 Orientation for International Students (1)
1 hour lecture
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Orientation for International Students will explore college life and concerns related to cultural and adjustment issues while living in the United States.

COUN 185 Peer Advising (1)
1 hour lecture
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
This class will teach students how to utilize and provide information from the Palomar College catalog, class schedule, student services, and community resources. Topics covered will be: academic policies, interpersonal communication skills, and peer counseling techniques. This course is required for participation in the Palomar Peer Counselor Program.

COUN 197 Counseling Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Pass/No Pass grading only; may be taken 4 times*
Transfer acceptability: *CSU*
Topics in Counseling. See Class Schedule for specific topic covered. Course title will designate subject covered.

Culinary Arts (CUL)

See also ROP Culinary Arts

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office:

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Culinary Arts

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Culinary Arts

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Culinary Skills
• Patisserie and Baking

PROGRAMS OF STUDY

Culinary Arts

Prepares students for employment and career opportunities in various areas of the foodservice industry. The focus is on food preparation and production skills, with supporting coursework in nutrition, food sanitation and safety, menu planning, purchasing and inventory control, kitchen management and employee supervision. Practical hands-on lab activities in a commercial kitchen environment and directed workplace learning opportunities prepare students for foodservice positions in resorts, casinos, and fine dining establishments.

Students will need to possess a current San Diego County Food Handler Card to participate in kitchen/lab activities.

In order to earn a certificate or degree, students must achieve a minimum grade of 'C' in each of the certificate program courses.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
FCS/MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/CUL 110	Culinary Essentials I	3
R CUL/CUL 111	Culinary Essentials II	3
R CUL/CUL 120	Patisserie and Baking I	3
R CUL/CUL 121	Patisserie and Baking II	3
R CUL/CUL 130	Pantry/Garde Manger	3
R CSIS/CSIT 120	Computer Applications	3
R CUL/CUL 200	Menu Planning and Purchasing	2
R CUL/CUL 210	Foodservice Management	3
R CUL/CUL 220	Catering and Event Planning	3
R CUL/CUL 298	Culinary Directed Practice I	3
R CUL/CUL 299	Culinary Directed Practice II	3
Electives (Select a minimum of 3 units)		
R CUL/CUL 115	Dining Room Service	2
R CUL/CUL 150	International Cuisine	3
R CUL/CUL 230	Adv Garde Manger/Competition	3
R CUL/CUL 240	Wines and Affinities	1
TOTAL UNITS		**41**

Culinary Skills

With a focus on basic food preparation and production skills, nutrition, and food safety and sanitation, the program prepares students for various entry-level positions in the foodservice industry. Practical hands-on lab activities in a modern commercial kitchen environment provide opportunities for students to master the skills required for employment.

Students will need to possess a current San Diego County Food Handler Card to participate in required kitchen/lab activities.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
FCS/MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/CUL 110	Culinary Essentials I	3
R CUL/CUL 111	Culinary Essentials II	3

R CUL/CUL 130	Pantry/Garde Manger	3
R CUL/CUL 115	Dining Room Service	2
TOTAL UNITS		**17**

Patisserie and Baking

With a focus on commercial baking and pastry making, the program prepares students for entry-level positions in bakeries, restaurants, resorts and casino operations. Practical hands-on lab activities in a modern commercial kitchen environment provide opportunities for students to master the skills required for employment.

Students will need to possess a current San Diego County Food Handler Card to participate in required kitchen/lab activities.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
FCS/MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/CUL 120	Patisserie and Baking I	3
R CUL/CUL 121	Patisserie and Baking II	3
TOTAL UNITS		**12**

COURSE OFFERINGS

CUL 110 Culinary Essentials I (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended preparation: *FCS 110/MICR 110*
Note: *Cross listed as R CUL 110; graded only*
Transfer acceptability: *CSU*
Introduction to culinary arts and the foodservice industry. Fundamentals of food preparation and production, emphasizing industry standards. Lab work will focus on knife skills, standard cuts, and preparation of vegetables and starches. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 111 Culinary Essentials II (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 110*
Note: *Cross listed as R CUL 111; graded only*
Transfer acceptability: *CSU*
Advanced food production, including meat and protein fabrication. Lab work will include: stocks, sauces and soups; meat and game; poultry; fish and seafood; breakfast foods and classical cuisine. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 115 Dining Room Service (2)
4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Note: *Cross listed as R CUL 115; graded only*
Orientation to dining room operations with an emphasis on dining room service, techniques of table waiting, and dining room skills. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 120 Patisserie and Baking I (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended preparation: *FCS/MICR 110*
Note: Cross listed as R CUL 120; graded only; may be taken 2 times
Fundamentals of baking, including ingredient properties and function, and preparation and evaluation of a variety of yeast products, quick breads, cookies, cakes, pies and pastries. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 121 Patisserie and Baking II (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 120*
Note: *Cross listed as R CUL 121; graded only; may be taken 2 times*
Advanced skills in the art of patisserie. Includes classic pastries, pâte à choux, and meringues; plated desserts; and cake decorating. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 130 Pantry/Garde Manger (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *San Diego County Food Handler Card*
Recommended preparation: *R CUL/CUL 110*
Note: *Cross listed as R CUL 130; graded only*
Introduction to cold food preparation and display. Includes salads, dressings, sandwiches and canapés. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 150 International Cuisine (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Note: *Cross listed as R CUL 150; graded only*
A hands-on cooking, tasting and evaluating exploration of the major cuisines of the world. Includes Asian, Latin, European and American cuisines with a focus on the cultures that influenced their development. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 197 Culinary Arts Topics (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Cross listed as R CUL 197; may be taken 4 times*
Transfer acceptability: *CSU*
Topics in Culinary Arts. See Class Schedule for specific topic offered. Course title will designate subject covered.

CUL 200 Menu Planning and Purchasing (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and FCS 165/HE 165 and R CSIS/CSIT 120*
Note: *Cross listed as R CUL 200; graded only*
Transfer acceptability: *CSU*
Basic principles of menu planning and purchasing with emphasis on: menu design; specifications and pricing; purchasing, inventory control and storeroom operations; and food and beverage cost control. Includes spreadsheet and database applications. Students will be expected to meet high standards of professionalism and work habits.

CUL 210 Foodservice Management (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111*
Note: *Cross listed as R CUL 210; graded only*
Introduction to foodservice management with emphasis on human relations and employee development. Includes operational planning and coordination, problem-solving and decision-making, and personnel management. Students will be expected to meet high standards of professionalism and work habits.

CUL 220 Catering and Event Planning (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and R CUL/CUL 130*
Note: *Cross listed as R CUL 220; graded only*
Transfer acceptability: *CSU*
Fundamentals of catering, including event planning, menu development and banquet preparation. Includes opportunities to apply culinary theory and skills in actual practice. Students will be expected to meet high standards of professionalism, sanitation and work habits.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

CUL 230 Adv Garde Manger/Competition (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and R CUL/CUL 130*
Note: *Cross listed as R CUL 230; graded only*
Application of advanced garde manger techniques in practical situations and culinary competition. Includes classical buffet presentation, decorative displays and artistic centerpieces. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 240 Wines and Affinities (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111*
Note: *Cross listed as R CUL 240; graded only*
Classification and identification of wines, with emphasis on properties and affinities with food. Includes wines from various regions of the world. Students will be expected to meet high standards of professionalism and work habits.

CUL 298 Culinary Directed Practice I (3)
3 hours lecture - 10 hours lab
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and R CUL/CUL 130 or R CUL/CUL 121*
Note: *Cross listed as R CUL 298; graded only*
Directed learning opportunity for culinary arts students to increase their knowledge and skill in the areas of hot and cold food production through supervised on-the-job training. Students will be expected to follow Culinary Arts standards of professionalism. Current San Diego County Food Handler Card and TB clearance required.

CUL 299 Culinary Directed Practice II (3)
3 hours lecture - 10 hours lab
Prerequisite: *A minimum grade of 'C' in RCUL/CUL 298, R CUL/CUL 200, FCS/MICR 110 and FCS/HE 165*
Note: *Cross listed as R CUL 299; graded only*
Directed entry-level professional work experience in the foodservice industry that provides exposure to the foodservice industry and an opportunity for culinary arts students to practice and demonstrate their employability skills and reflect on their future roles in the industry. Students will be expected to follow Culinary Arts standards of professionalism. Current San Diego County Food Handler Card and TB clearance required.

Dance (DNCE)

Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: D-16

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Dance

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Dance

PROGRAMS OF STUDY

Dance

The degree in Dance provides students with a background to begin upper-divison work leading to a B.A. or B.F.A. in dance, or for continued training leading to a professional career in the field of dance and dance-related professions. Both the degree and the certificate provide students with the basic skills necessary for involvement in community dance activities, such as teaching in recreation centers, YMCA's or YWCA's, private studios; or performing or choreographing for community theatre productions. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DNCE 100*	Survey of Dance	3
DNCE 101	Survey of World Dance	3
DNCE 102	Dance on Film	3
	or	
DNCE 105	Introduction to Dance History	3

*Should be taken the first semester

Electives - Group I (Select two courses)		
DNCE 115	Fundamentals of Ballet	1.5
DNCE 116	Ballet I	1.5
DNCE 117	Beginning Pointe	.5-2.5
DNCE 210	Ballet II	1.5,2.5
DNCE 211	Pointe/Pas de Deux	.5-3

Electives - Group II (Select two courses)		
DNCE 110	Modern Dance I	1.5
DNCE 111	Modern Dance II	1.5
DNCE 205	Modern Dance III	1,1.5
DNCE 206	Advanced Movement Patterns	1,1.5

Electives - Group III (Select two courses)		
DNCE 120	Jazz Technique I	1.5
DNCE 121	Jazz Technique II	1.5
DNCE 215	Jazz Technique III	1,1.5
DNCE 216	Advanced Dance Technique	1,1.5

Electives - Group IV (Select one course)		
DNCE 125	Theatre Dance I	1,1.5
DNCE 126	Theatre Dance II	1,1.5
DNCE 130	Tap Dance I	1,1.5
DNCE 131	Tap Dance II	1,1.5
DNCE 132	Tap Dance III	1,1.5

Electives - Group V (Select one course)		
DNCE 149	Afro-Cuban/Brazilian Dance I	1-3
DNCE 150	Afro-Cuban/Brazilian Dance II	1-3
DNCE 151	Beginning Latin Social Dance	1-2
DNCE 152	Intermediate Latin Social Dance	1-2

Electives - Group VI (Select one course)		
DNCE 140	Dance Improvisation I	2
DNCE 141	Dance Improvisation II	2
DNCE 145	Choreography I	3
DNCE 146	Choreography II	3

Electives - Group VII (Select two courses)		
DNCE/MUS 137	Cuban and Brazilian Drumming I	.5-4
DNCE/MUS 138	Cuban and Brazilian Drumming II	.5-4
DNCE 148	Palomar Drum and Dance Ensemble	1.5-3
DNCE 165	Production Management	1.5-4
DNCE 190	Ethnic Dance Production	1.5, 2
DNCE 197B	Modern Dance Production	1, 1.5
DNCE 197C	Jazz Dance Production	1, 1.5
DNCE 197D	Theatre Dance Production	1, 1.5
DNCE 197E	Ballet Dance Production	1, 1.5
DNCE 197F	Rehearsal and Performance	.5, 1, 1.5, 2, 3
DNCE 197J	Tap Dance Production	1, 1.5
DNCE 197K	Student Choreography Production	.5-6
TOTAL UNITS		**19 - 38**

Recommended Electives: DNCE/ART/MUS/TA 123; DNCE 155, 170; DNCE/MUS 185; MUS 105, TA 100, 106, 115; ZOO 200

Note: Students are screened for level placement in all technique classes the previous semester or the first day of class.

COURSE OFFERINGS

Each activity may be taken four times for credit. Activity is defined to include all ability levels (e.g., A student may take a total of only four Modern Dance courses for credit). Modern Dance, Ballet, Jazz Technique, Tap Dance, Spanish Flamenco Dance, Ethnic Drumming, Martial Arts, Hip Hop, Ballroom Dance, Latin Social Dance, Dance Improvisation, Choreography, Pointe and Theatre Dance classes are defined as activity courses.

Courses numbered under 100 are not intended for transfer credit.

DNCE 96 Special Projects (1, 1.5, 2, 3)
2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to project approval*
Note: *May be taken 4 times*
Participation in performance or research projects beyond those normally expected in regular class sessions.

DNCE 97 Rehearsal and Performance (.5, 1, 1.5, 2, 3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Participation in rehearsal and performance.

DNCE 97A Dance Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Dance. See Class Schedule for specific topic offered. Course title will designate subject covered.

DNCE 100 Survey of Dance (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Survey of present day dance forms experienced through lecture, film, demonstration, and movement. This course covers dance as an art form, the creative process, ways to view and analyze movement, body mechanics/anatomy, prevention of injuries, education and career opportunities, and a study of various dance genres.

DNCE 101 Survey of World Dance (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An analysis of the dances, dance styles, costumes, and musical accompaniment of dances from around the world as experienced through films, lecture, demonstration, and movement.

DNCE 102 Dance on Film (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course will explore the phenomenon of dance on film from cultural, historical, social, economic, and gender viewpoints.

DNCE 105 Introduction to Dance History (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the development of dance from earliest civilizations to the present including Egyptian, Ancient Greek and Roman, and with emphasis on the American Indian and African American influences on the social and performance aspects of dance in the world today.

DNCE 110 Modern Dance I (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 110, 111, 205, 206*
Transfer acceptability: *CSU; UC*
Beginning modern dance techniques with emphasis on movement exploration, alignment, and creativity.

DNCE 111 Modern Dance II (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 110*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 110, 111, 205, 206*
Transfer acceptability: *CSU; UC*
Intermediate dance techniques with emphasis on increasing movement skills and creative range.

DNCE 115 Ballet I (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Recommended preparation: *DNCE 100*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 115, 116, 210, 211*
Transfer acceptability: *CSU; UC*
Introduction to ballet's traditions, principles, techniques, and terminology. Includes fundamental ballet exercises at barre and center with emphasis on technique and alignment.

DNCE 116 Ballet II (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 115*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 115, 116, 210, 211*
Transfer acceptability: *CSU; UC*
Continued study of ballet techniques, principles, and terminology. Intermediate/beginning level with emphasis on combinations and an enlarged vocabulary of steps and terms.

DNCE 117 Pointe I (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 115*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 117, 118, 217, 218*
Transfer acceptability: *CSU; UC*
This course is designed to introduce concepts of pointe technique at the beginning level, while reinforcing intermediate ballet technique. Concentration will be placed on proper alignment, toe placement, ankle strength and flexibility, rotation of the legs from the hip sockets, and overall artistry.

DNCE 118 Pointe II (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 116*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 117, 118, 217, 218*
Transfer acceptability: *CSU; UC (pending)*
Designed to introduce concepts of pointe technique at the beginning/intermediate level, while reinforcing intermediate ballet technique. Concentration will be placed on proper alignment, toe placement, ankle strength and flexibility, rotation of the legs from the hip sockets, and overall artistry.

DNCE 120 Jazz Technique I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 120, 121, 215*
Transfer acceptability: *CSU; UC*
Beginning jazz movement and floor progressions.

DNCE 121 Jazz Technique II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 120*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 120, 121, 215*
Transfer acceptability: *CSU; UC*
Intermediate jazz movement and floor progressions.

DNCE 123 Arts Across the Curriculum (3)
3 hours lecture
Note: *Cross listed as ART 123/MUS 123/TA 123*
Transfer acceptability: *CSU*
This course is an introduction to the artistic creative process through a comparative study of dance, music, theatre, and visual arts, within a social and cultural context. The principles of artistic perception, creative expression, cultural and historical context, and aesthetic valuing will be discussed.

DNCE 125 Theatre Dance I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 125, 126*
Transfer acceptability: *CSU; UC*
Dance steps and styles used in musical theatre, past and present. Basic partnering techniques also included.

DNCE 126 Theatre Dance II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 125*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 125, 126*
Transfer acceptability: *CSU; UC*
A continuation of Theatre Dance I. Dance steps and styles used in musical theatre. Focus on stage projection, partnering, developing stage characters, and auditioning skills.

DNCE 127 Spanish Flamenco Dance (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 127, 128*
Transfer acceptability: *CSU; UC*
Study of specific Spanish dance styles, castanets, steps, and techniques of Spanish/Flamenco dance.

DNCE 128 Intermediate Spanish Flamenco Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 127*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 127, 128*
Transfer acceptability: *CSU; UC*
Study of different Spanish dance styles including regional, classical, Spanish/Flamenco, traditional and modern.

DNCE 130 Tap Dance I (1, 1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 130, 131, 132*
Transfer acceptability: *CSU; UC*
Beginning skills in tap dance covering basic and traditional material.

DNCE 131 Tap Dance II (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 130*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 130, 131, 132*
Transfer acceptability: *CSU; UC*
Intermediate level skills in tap dance with focus on new trends and styles.

DNCE 132 Tap Dance III (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 130 and 131*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 130, 131, 132*
Transfer acceptability: *CSU; UC*
Advanced skills in tap dance with focus on new trends and styles.

DNCE 133 Contemporary Social Dance (1)
2 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Development of beginning through intermediate levels of social dance techniques using West Coast Swing, Hustle, Night Club Two-Step, and Salsa.

DNCE 135 Beginning Ballroom Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 135, 136, 139*
Transfer acceptability: *CSU; UC*
Development of beginning social dance techniques concerning both standard and contemporary social dance steps and styling.

DNCE 136 Intermediate Ballroom Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 135*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 135, 136, 139*
Transfer acceptability: *CSU; UC*
Intermediate level social dance skills, steps, and styling.

DNCE 137 Cuban and Brazilian Drumming I (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Note: *Cross listed as MUS 137; may be taken 4 times; maximum of 4 completions in any combination of DNCE/MUS 137 and DNCE/MUS 138*
Transfer acceptability: *CSU; UC*
Drum, percussion and song classes in the traditions of Escola de Samba from Rio de Janeiro, Brazil and Afro-Cuban traditions, Rumba, Congo, makuta from Cuba. Develop ability to work as part of a drum ensemble.

DNCE 138 Cuban and Brazilian Drumming II (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE/MUS 137*
Note: *Cross listed as MUS 138; may be taken 4 times; maximum of 4 completions in any combination of DNCE/MUS 137 and DNCE/MUS 138*
Transfer acceptability: *CSU; UC*
Intermediate level drum, percussion and song classes in the traditions of Escola de Samba from Rio de Janeiro, Brazil and Afro-Cuban traditions, Rumba, Congo, makuta from Cuba. Develop ability to work as part of a drum ensemble.

DNCE 139 Advanced Ballroom Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 136*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 135, 136, 139*
Transfer acceptability: *CSU; UC*
Advanced level social dance skills, steps, and styling.

DNCE 140 Dance Improvisation I (2)
4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 140, 141*
Transfer acceptability: *CSU; UC*
Study of dance through varied experiences in movement. Exploration of elements of time, space, and energy through movement improvisations and group studies.

DNCE 141 Dance Improvisation II (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 140*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 140, 141*
Transfer acceptability: *CSU; UC*
Study of dance through varied experiences in movement with emphasis on understanding movement principles, beginning music analysis, use of percussion and various forms of accompaniment, and composition of solo studies to composed music.

DNCE 145 Choreography I (3)
3 hours lecture
Corequisite: *DNCE 197K*

Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 145, 146*
Transfer acceptability: *CSU; UC*
Beginning choreography with emphasis on combining movements and developing ideas in relation to motivation, design, and dynamics. Discuss forms and learn how to articulate the art of dance.

DNCE 146 Choreography II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 145*
Corequisite: *DNCE 197K*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 145, 146*
Transfer acceptability: *CSU; UC*
Intermediate choreography with emphasis on combining movements and developing ideas in relation to movements and developing ideas in relation to motivation and form. Discuss forms and develop the skills to articulate the art of dance.

DNCE 147 Repertory (1.5)
3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Previous dance training and performance experience. Knowledge and ability to perform different dance styles such as jazz, ballet, modern, musical theatre, etc.*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Learning, rehearsing, and performing dance routines as an outreach to Palomar College, area high schools, and the community.

DNCE 148 Palomar Drum and Dance Ensemble (1.5, 2, 3, 4)
1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 1½, 3, 4½ hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of traditional music and dances of the African Diaspora: West African, Afro-Cuban, Afro-Brazilian, and Afro-Caribbean. Performance of original work influenced by dances of the African Diaspora. Emphasis will be on performing as an ensemble.

DNCE 149 Afro-Cuban/Brazilian Dance I (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 1½, 3, 4½ hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 149, 150*
Transfer acceptability: *CSU, UC*
Beginning level Afro-Cuban/Brazilian movement.

DNCE 150 Afro-Cuban/Brazilian Dance II (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 1½, 3, 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 149*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 149, 150*
Transfer acceptability: *CSU; UC*
Level II Afro-Cuban/Brazilian movement.

DNCE 151 Latin Social Dance I (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 2, 3, 4½ hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 151, 152*
Transfer acceptability: *CSU; UC*
An exhilarating class designed to introduce students to the vibrant Hispanic culture through contemporary social dances. Through demonstration and movement participation students will explore a variety of social dances that are all part of the Latin Diaspora.

DNCE 152 Latin Social Dance II (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 2, 3, 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 151*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 151, 152*
Transfer acceptability: *CSU; UC*
An exhilarating class designed to continue exploring the vibrant Hispanic culture through contemporary social dances. Through demonstration and movement participation students will explore a variety of social dances that are all part of the Latin Diaspora.

DNCE 153 Capoeira: Afro/Brazil Martial Art I (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 153, 154*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
A class designed to introduce students to the unique martial art form from Brazil known as Capoeira. Through lecture, demonstration and movement participation students will study this multi-faceted art form.

DNCE 154 Capoeira: Afro/Brazil Martial Art II (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 153*
Note: *Maximum of 4 completions in any combination of DNCE 153, 154*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Intermediate level class of the unique martial art form from Brazil known as Capoeira. Through lecture, demonstration and movement participation students will study this multi-faceted art form.

DNCE 155 Hip Hop I (1, 1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 155, 156, 157*
Transfer acceptability: *CSU; UC*
Beginning level of Hip Hop, an exhilarating class. Designed to introduce students to this unique contemporary dance form.

DNCE 156 Hip Hop II (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 155*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 155, 156, 157*
Transfer acceptability: *CSU; UC*
Intermediate level of Hip Hop, an exhilarating class. Designed to introduce students to this unique contemporary dance form.

DNCE 157 Hip Hop III (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 156*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 155, 156, 157*
Transfer acceptability: *CSU; UC*
Advanced level of Hip Hop, an exhilarating class. Designed to introduce students to this unique Contemporary dance form.

DNCE 158 Hawaiian and Tahitian Dance I (1, 1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 158, 159*
Transfer acceptability: *CSU; UC*
Beginning level of an exhilarating class designed to introduce students to the exotic Hawaiian and Tahitian culture through percussion, song and dance. Through demonstrations and movement participation students will explore a variety of dances from these two distinct and unique cultures that are part of the Polynesian Islands.

DNCE 159 Hawaiian and Tahitian Dance II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 158*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 158, 159*

Transfer acceptability: *CSU; UC*
Intermediate level of an exhilarating class designed to introduce students to the exotic Hawaiian and Tahitian culture through percussion, song and dance. Through demonstrations and movement participation students will explore a variety of dances from these two distinct and unique cultures that are part of the Polynesian Islands.

DNCE 161 Teaching Methods in Dance (3)
3 hours lecture
Transfer acceptability: *CSU*
Explore the teaching/learning/knowing process by blending current educational, teaching and learning styles with practical hands on teaching experiences. Through the constant integration of theory and practice, we will utilize our own experiences and understanding and our interpretations of theoretical literature to construct our own personal pedagogies. The construction of a safe and consistent dance environment for all ages will be covered.

DNCE 162 Near and Middle Eastern Dance I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 162, 163*
Transfer acceptability: *CSU; UC*
An introduction to classical and folkloric dances from the Near and Middle East.

DNCE 163 Near and Middle Eastern Dance II (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 162, 163*
Transfer acceptability: *CSU; UC*
A more in depth study of classical and folkloric dances for the Near and Middle East.

DNCE 165 Production Management (1.5, 2, 3, 4)
1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 1½, 3, 4½ hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Principles and methods of organization, operation, promotion, programming, publicity, ticket sales, box office records, public relations, and graphics. Practical experience in college and community dance productions.

DNCE 170 Pilates® (.5,1)
1 or 2 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Pilates® method of body conditioning: an exercise program that improves muscle control, flexibility, coordination, strength, and tone. Teaches efficiency of movement.

DNCE 173 Musical Theatre Scenes (1)
3 hours laboratory
Note: *Cross listed as MUS 173/TA 173*
Transfer acceptability: *CSU*
Rehearsal and performance of solo and group scenes from Broadway musicals dating from the 1930's to the present.

DNCE 182 Introduction to Arts Management (3)
9 hours laboratory
Note: *Cross listed as AMS 182/ART 182/MUS 182/TA 182*
Transfer acceptability: *CSU*
An introduction to the principles and practices of arts management through an interdisciplinary study of management topics in the visual and performing arts.

DNCE 183 Internship in Arts Management (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AMS/ART/DNCE/MUS or TA 182*
Note: *Cross listed as AMS 183/ART 183/MUS 183/TA 183*
Transfer acceptability: *CSU*
Practical experience in arts management in the visual and performing arts.

DNCE 184 Introduction to Kinesiology (3)
3 hours lecture
Transfer acceptability: *CSU*
Designed to provide students with sound knowledge of body structures, systems, and functions. Identify the technical demands of dance and sports and evaluate and implement approaches to long-range development as dancers/ athletes. Experiential anatomy will be introduced with concepts necessary to develop analytical skills of the student.

DNCE 185 Franco Haitian Percussion and Song I (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Note: *Cross listed as MUS 185; may be taken 4 times; maximum of 4 completions in any combination of DNCE/MUS 185, 186*
Transfer acceptability: *CSU; UC*
An introduction to traditional Franco Haitian percussion and songs from the Eastern region of Cuba.

DNCE 186 Franco Haitian Percussion and Song II (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Note: *Cross listed as MUS 186; may be taken 4 times; maximum of 4 completions in any combination of DNCE/MUS 185, 186*
Transfer acceptability: *CSU; UC*
Intermediate level Traditional Franco Haitian percussion and songs from the Eastern region of Cuba.

DNCE 190 World Dance Production (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 1½, 3, 4½ hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 192 Tap and Theatre Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Introduction to the fundamental skills in tap and theatre dance covering basic and traditional material.

DNCE 197A Summer Dance Workshop (1, 1.5, 2, 3)
2, 3, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Concentrated work in a variety of dance areas. Specific content of each workshop differs and is composed of dance styles and techniques not included in the regular dance curriculum.

DNCE 197B Modern Dance Production (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 111 or 205*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197C Jazz Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 121 or 215*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197D Theatre Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197E Ballet Dance Production (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 210*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197F Rehearsal and Performance (.5, 1, 1.5, 2, 3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Participation in dance rehearsal and performance.

DNCE 197H Topics in Dance (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Dance. See Class Schedule for specific topic offered. Course title will designate subject covered.

DNCE 197J Tap Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 131 or 132*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197K Student Choreography Production (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6)
½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5, 5½, 6 hours lecture - 1½, 2, 3 hours laboratory
Corequisite: *DNCE 145 or 146*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 205 Modern Dance III (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 111*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 110, 111, 205, 206*
Transfer acceptability: *CSU; UC*
Advanced dance technique with emphasis on performance skills.

DNCE 206 Modern Dance IV (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 205*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 110, 111, 205, 206*
Transfer acceptability: *CSU; UC*
Advanced level modern dance technique.

DNCE 210 Ballet III (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5)
½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5 hours lecture - 1½, 2, 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 116*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 115, 116, 210, 211*
Transfer acceptability: *CSU; UC*
Ballet techniques, principles, and terminology at the intermediate level with emphasis on line, phrasing, endurance, and progressively difficult steps and combinations.

DNCE 211 Ballet IV (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5)
½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5 hours lecture - 1½, 2, 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 210*
Note: *May be taken taken 4 times; maximum of 4 completions in any combination of DNCE 115, 116, 210, 211*
Transfer acceptability: *CSU; UC*
Ballet techniques, principles, and terminology at the advanced level with emphasis on line, phrasing, endurance, musicality, and progressively difficult steps and combinations.

DNCE 215 Jazz Technique III (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 121*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 120, 121,215*
Transfer acceptability: *CSU; UC*
Advanced jazz movement and floor progressions.

DNCE 216 Advanced Dance Technique (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE 215*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Advanced level dance technique in commercial dance stylizations and rhythms.

DNCE 217 Pointe III (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5)
½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 117*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 117, 118, 217, 218*
Transfer acceptability: *CSU; UC (pending)*
This course is designed to introduce concepts of pointe technique at the Intermediate level, while reinforcing intermediate ballet technique. Concentration will be placed on proper alignment, toe placement, ankle strength and flexibility, rotation of the legs from the hip sockets, and overall musicality artistry.

DNCE 218 Pointe IV (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5)
½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5 hours lecture
Prerequisite: *A minimum grade of 'C' in DNCE 117*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 117, 118, 217, 218*
Transfer acceptability: *CSU; UC (pending)*
This course is designed to introduce concepts of pointe technique at the advanced level, while reinforcing advanced ballet technique. Concentration will be placed on proper alignment, toe placement, ankle strength and flexibility, rotation of the legs from the hip sockets, and overall artistry.

DNCE 225 Palomar Contemporary Dance Ensemble (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4)
½, 1, 1½, 2, 2½, 3, 3½, 4 hours lecture - 1½, 2, 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC (pending)*
Contemporary ballet technique and repertoire.

DNCE 297 Experimental Projects in Dance (.5, 1, 1.5, 2, 3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to project approval*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Advanced dance projects including individual research, tutoring, and performance for college classes and community projects.

Database

See CSIS - Database

Dental Assisting (DA)

Contact the Dental Assisting Program for further information.
(760) 744-1150, ext. 2571
Office: AA-116

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Dental Assisting (Registered Dental Assistant)

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Dental Assisting (Registered Dental Assistant)

PROGRAM OF STUDY

The Dental Assisting Program is accredited by the Commission on Dental Accreditation of the American Dental Association, and is approved by the Dental Board of California.

Certification and Licensing. Upon successful program completion, student will be issued a Certificate of Proficiency in Dental Radiography issued by Palomar College. Students who successfully complete the program are eligible to apply for the California Registered Dental Assistant Examination to become licensed as a California Registered Dental Assistant (RDA) with a Coronal Polishing Certificate; and are eligible to apply for the nationally recognized Certified Dental Assistant Examination offered by the Dental Assisting National Board, Incorporated (DANB).

ADMISSION REQUIREMENTS

Admission to the Dental Assisting Program is by special application. To be eligible for admission, applicants must:

1. Complete Palomar College Application for Admission;
2. Attend a Dental Assisting orientation meeting;
3. Show proof of high school graduation or equivalent by submitting official transcripts, or proof of a passing score on the General Education Development test (GED);
4. Take a Palomar College English assessment test and be eligiible for English 50, or demonstrate completion of a similar, equivalent college English course(s);
5. Submit medical and dental clearances including TB test results;
6. Meet academic requirements as specified in the Dental Assisting Program brochure;
7. Show proof of a valid Social Security number.

Dental assistants need to have good vision, hearing, and the ability to communicate orally. In addition, they must have the ability to comprehend and interpret written information; and the dexterity to use small dental instruments.

Dental Assisting (Registered Dental Assistant)

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

To remain enrolled in the program, students must earn a minimum grade of 'C' (2.0) in each of the required courses. Students must pass all laboratory and clinical evaluations at 75% competency or a substandard grade will be assigned for the course. A student may fail a dental assisting course on the basis of clinical practice even though theory grades may be passing.

Program Requirements		**Units**
DA 50	Introduction to Dental Sciences/Occupations	3
ENG 50 or	Introductory Composition	4
ENG 100 or	English Composition	4
ESL 103	Written Communication III	5
Proof of current BLS for Healthcare Providers Certificate		0
First Semester		
DA 57	Dental Sciences and Anatomy	4
DA 60	Dental Materials	3
DA 65	Dental Practice Management	2
DA 70	Dental Radiography I	2.5
DA 75	Dental Operative Procedures	5
DA 82	Preventive Dentistry I	1
Second Semester		
DA 71	Dental Radiography II	.5
DA 83	Preventitive Dentistry II	.5
DA 85	Advanced Dental Procedures	4
DA 90	Clinical Rotation	6
TOTAL UNITS		**35.5 - 36.5**

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

DA 47 Dental Assisting Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Pass/No Pass grading only; may be taken 4 times*
Non-degree Applicable
Topics in Dental Assisting. See Class Schedule for specific topic offered. Course title will designate subject covered.

DA 50 Introduction to Dental Sciences and Dental Occupations (3)
3 hours lecture
Note: *Graded only*
General orientation to dental assisting. Introduction to basic oral anatomy, oral hygiene techniques and prevention, human behavior, dental nomenclature, dental assisting, history of dentistry, ethics, role of the dental assistant and other auxiliary personnel; licensing and certification of dental assistants; dental jurisprudence and malpractice; psychology and observation in dental offices.

DA 57 Dental Sciences and Anatomy (4)
4 hours lecture
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Introduction of dental terminology, histology, embryology, tooth growth, eruption, and anatomy; head and neck anatomy, and physiology of the body. Form and function of individual teeth, occlusion, oral pathology, diet and nutrition, relation of oral health to general health, microbiology, disease control and dental pharmacology.

DA 60 Dental Materials (3)
3 hours lecture - 1 hour laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Chemical properties and uses of dental materials and solutions; manipulative techniques and methods of preparation.

DA 65 Dental Practice Management (2)
2 hours lecture - 1 hour laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Reception and care of the patient in the dental office, communication skills, telephone techniques, appointment scheduling, dental records (charting health and dental history), filing, recalls, bookkeeping, accounts receivable and accounts payable, purchasing inventory, principles of and use of insurance forms and collections.

DA 70 Dental Radiography I (2.5)
2 hours lecture - 1½ hours laboratory
Prerequisite: *Admission to the Dental Assisting Program*

Note: *Graded only*
Theory and technique of oral radiography, radiation hygiene, anatomical landmarks, and methods and materials for processing radiographs. The laboratory portion will provide the student with knowledge concerning film placement, cone angulation, exposing and developing radiographs, and mounting and evaluating processed films.

DA 71 Dental Radiography II (.5)
1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DA 50 and 70, and proof of Hepatitis B Immunization; and EME 55 or current BLS for Healthcare Providers Certificate*
Note: *Graded only*
Advanced experience regarding film placement, cone angulation, exposing and developing radiographs, mounting and evaluating films to further enhance the student's patient management skills.

DA 75 Dental Operative Procedures (5)
3 hours lecture-6 hours laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Applications of and introduction to preclinical dental assisting in operative and specialty dental procedures, care of equipment, instrumentation, sterilization techniques, disease transmission, charting, utilization of dental materials, dental office emergencies, and functions delegated to the California Registered Dental Assistant.

DA 82 Preventive Dentistry I (1)
1 hour lecture-1 hour laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded Only*
This course teaches laboratory and clinical applications of coronal polishing, periodontics, preventive dentistry and placement of pit and fissure sealants.

DA 83 Preventive Dentistry II (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in DA 50, DA 82, proof of Hepatitis B Immunization, and current BLS for Healthcare Providers Certificate*
Note: *Pass/No Pass grading only*
Application of concepts and skills from DA 82. Emphasis is on the coronal polishing procedure and pit and fissure sealants as applied to clinical patients.

DA 85 Advanced Dental Procedures (4)
2 hours lecture-6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DA 50 , 60 and 75, and proof of Hepatitis B Immunization; and EME 55 or current BLS for Healthcare Providers Certificate*
Note: *Graded only*
Advanced laboratory and clinical experience focusing on basic skills previously learned. Emphasis is placed on 1) clinical use of impression materials for obtaining study models, 2) pouring and trimming plaster and stone models, 3) fabrication of custom trays for preliminary impressions, 4) fabrication of provisional restorations, and 5) advanced prosthodontic and orthodontic instruction.

DA 90 Clinical Rotation (6)
19 hours laboratory/clinical
Prerequisite: *A minimum grade of 'C' in DA 50 and 75, and proof of Hepatitis B Immunization; and EME 55 or current BLS for Healthcare Providers Certificate*
Note: *Pass/No Pass only*
An intensive program of practical dental experiences, working with patients and staff at the Camp Pendleton Naval Dental Clinic and/or private dental offices. Students will assist the dentists in specialized and operative procedures and duties delegated to the California licensed Registered Dental Assistant.

DA 97 Dental Assisting Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Pass/No Pass only; may be taken 4 times*
Topics in Dental Assisting. See Class Schedule for specific topic offered. Course title will designate subject covered.

Diesel Mechanics Technology (DMT)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-1

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Diesel Technology

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Diesel Technology

PROGRAM OF STUDY

Diesel Technology

The Diesel Technology program at Palomar College gives the student an opportunity to gain the skills and knowledge needed for success in the challenging field of Diesel Technology, learning about servicing and maintaining diesel powered highway trucks, off-road heavy equipment, and stationary engines. The two-year program which leads to a Certificate of Achievement can also be applied towards an Associate in Arts Degree in Diesel Technology.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
AT 160	Associated Studies in Automotives	3
AT 197	Topics in Automotive	3
DMT 50	Introduction to Diesel Mechanics	4
DMT 54	Heavy-Duty Electricity	4
DMT 55	Heavy-Duty Diesel Tune-Up/Analysis	4
DMT 61	Diesel Engine Rebuilding I	4
DMT 62	Diesel Engine Rebuilding II	4
DMT 65	Air Brake Systems	4
DMT 66	Truck Transmission and Drive Lines	4
IT/WELD 108	Technical Mathematics	3
Electives (Select 6 units)		
AT 105	Atomotive Electricity	2
AT 125	Automotive Machining	3
DMT 56	Alternative Fuels	4
DMT 70	Med-Duty Diesel Engine Tune-Up	4
DMT 81	Basic Hydraulics	4
DMT 96	Special Problems in Diesel Technology	.5 - 3
DMT 97	Diesel Mechanics Tech Workshop	.5 - 3
WELD 100	Welding I	3
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**43**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

DMT 50 Introduction to Diesel Mechanics (4)
3 hours lecture- 3 hours laboratory
Theory and practice of fundamental skills for the maintenance and operation of basic diesel engines. Topics for study include: basic theory of operation; engine applications; engine lubricating and cooling; intake, exhaust and fuel systems; and electronic control.

DMT 54 Heavy-Duty Electricity (4)
3 hours lecture- 3 hours laboratory
Note: *May be taken 2 times*
Heavy-duty electricity systems principles and service. Topics of study include electrical theory, batteries, wiring diagrams, 12V and 24V starters, alternators and electrical troubleshooting, and test equipment.

DMT 55 Heavy-Duty Diesel Tune Up and Engine Analysis (4)
3 hours lecture- 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DMT 50*
Note: *May be taken 2 times*
The use of software and diagnostic equipment in performing diesel tune-up. Topics include: theory of operation, tune-up procedures, fuel system function and repair, diagnostic equipment usage, electronic engine controls, mechanical and electronic engine system troubleshooting.

DMT 56 Alternative Fuels (4)
3 hours lecture- 3 hours laboratory
Recommended preparation: *DMT 50*
Theory and servicing of alternative fueled engines. Topics for study include various types of fuels, fuel handling and safety procedures, basic principles, regulators and mixers, all system components operation and service, electronic control systems, and emission testing.

DMT 61 Diesel Engine Rebuilding I (4)
3 hours lecture- 3 hours laboratory
Recommended preparation: *DMT 50*
Note: *May be taken 2 times*
Theory and practice in rebuilding diesel engines. Topics for study include disassembly, cleaning, inspection, and analysis of engine parts. Also included are cylinder head service, sleeve and piston service, advanced machining and measuring techniques.

DMT 62 Diesel Engine Rebuilding II (4)
3 hours lecture- 3 hours laboratory
Recommended preparation: *DMT 61*
Theory and practice in rebuilding diesel engines. Topics for study include final cleaning, inspection and reassembly of engine parts. Also included are assembly measuring, torque procedures and torque-turn methods used on engine assembly, and engine testing upon completion of assembly.

DMT 65 Air Brake Systems (4)
3 hours lecture- 3 hours laboratory
The service and repair of heavy duty hydraulic and air brake systems and their components. Topics of study include brake troubleshooting, complete system repair, anti skid brake system, and related axle services.

DMT 66 Truck Transmission and Drive Lines (4)
3 hours lecture- 3 hours laboratory
Service and repair of heavy duty truck drive lines. Topics for study include the disassembly, inspection and reassembly of single and multiple disc clutches, four to fifteen speed transmissions, universal joints, and differentials.

DMT 70 Medium Duty Diesel Engine Tune Up (4)
3 hours lecture- 3 hours laboratory
Note: *May be taken 2 times*
The use of diesel tune up and diagnostic equipment. Topics include: fuel systems; compression testing; fuel pump and injection timing; troubleshooting procedures; alternators, regulators, and starting systems.

DMT 81 Basic Hydraulics (4)
3 hours lecture- 3 hours laboratory
Note: *May be taken 2 times*
Basic hydraulic system principles and service. Topics of study include hydraulic theory, safety requirements, hydraulic diagrams and ISO symbols, component operation, service and repair troubleshooting, and test equipment usage.

DMT 96 Special Problems in Diesel Technology (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *A minimum grade of 'C' in DMT 50*
Note: *May be taken 4 times*
A special study in topics in the area of interest to diesel mechanics, generally research in nature. The content to be determined by the need of the student under a signed contract with the instructor.

DMT 97 Diesel Mechanics Technology Workshop (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
A special selection of topics specific in nature. The contents will vary depending on specific needs of the students and community.

Disability Resource (DR)

Contact the Disability Resosurce Center for further information.
(760) 744-1150, ext. 2375
Office: DSPS

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

DR 5 Personal Adjustment and Growth (2)
1½ hours lecture-1½ hours laboratory
Note: *May be taken 3 times*
Non-degree Applicable
An individualized class which explores existing concepts, theories, and practices pertaining to self appraisal defense mechanisms and interpersonal relations, and how that relates to school management and to the student's particular disability. This course is designed to meet the needs of students with disabilities.

DR 10 Educational Assessment/Guidance (.5)
½ hour lecture
Note: *Open entry/Open exit; Pass/No Pass grading only; may be taken 2 times*
Non-degree Applicable
This individualized course is designed to assess, by means of diagnostic testing and the California Community College learning disability eligibility process, the student's need for academic accommodations in the community college setting. The student will be counseled in planning appropriate educational goals and in selecting and preparing for college classes.

DR 15 English Essentials for Students with Disabilities (3)
3 hours lecture
Note: *Pass/No Pass grading only; may be taken 4 times; Students must have the ability to learn in a group setting. Students must be able to produce computer generated work by using the keyboard or other assistive technology.*
Non-degree Applicable
Provides special assistance for students with disabilities to develop basic skills in written communication. Working with computers is part of the class format.

DR 18 Phonics for Students with Disabilities (3)
3 hours lecture
Note: *May be taken 3 times*
Non-degree Applicable
This course is designed to meet the needs of students with disabilities. It teaches the use of phonics as a spelling and reading strategy.

DR 20 Pre-Algebra Support (3)
3 hours lecture
Note: *Pass/No Pass grading only; may be taken 4 times*
Non-degree Applicable
Provides programmed instruction on an individual and/or small group basis to students with disabilities. Practice in understanding and performing basic arithmetic tasks necessary for successful functioning in society.

DR 25 Algebra Support (1.5,3)
1½ or 3 hours lecture
Recommended preparation: *MATH 15 or eligibility for MATH 50*
Note: *Pass/No Pass grading only; may be taken 4 times*
Non-degree Applicable
Provides personalized instruction in basic study management techniques for the support of students with disabilities in mainstream classes. The course will help students with disabilities to develop specialized study techniques and interpersonal skills needed for success in mainstream classes.

DR 26 Composition Skills and Strategies for the Intermediate Writer (3)
3 hours lecture
Recommended preparation: *ENG 10 or eligibility for ENG 50*
Note: *May be taken 2 times*
Non-degree Applicable
This class is designed to help students with disabilities improve their intermediate composition skills through methods and strategies specific to their disabilities.

DR 40 Adapted Computer Skills (3)
3 hours lecture
Note: *May be taken 3 times*
Non-degree Applicable
Provides computer training using specialized software and hardware adaptations to assist students with disabilities to develop skills in word processing and Internet research.

DR 41 Advanced Adapted Computers for Students with Disabilities (3)
3 hours lecture
Recommended preparation: *DR 40*
Note: *May be taken 3 times*
Non-degree Applicable
Provides training in more advanced software for students with disabilities by using their prescribed access technology. Course work meets computer literacy competence for CSUSM.

DR 42 Voice Recognition for Students with Disabilities (3)
3 hours lecture
Note: *May be taken 3 times*
Non-degree Applicable
Provides voice recognition computer training for students with disabilities.

DR 43.1 Software for Students with Vision Loss I (3)
3 hours lecture
Recommended Preparation: *Keyboarding skills with a minimum of 15 words per minute*
Note: *May be taken 2 times*
Non-degree Applicable
Provides training using specialized software and hardware adaptations to assist students with blindness/low vision to develop computer skills.

DR 43.2 Software for Students with Vision Loss II (3)
3 hours lecture
Recommended Preparation: *Keyboarding skills with a minimum of 15 words per minute along with prior experience with a screen reading or magnification application*
Note: *May be taken 2 times*
Non-degree Applicable
Provides training using specialized software and hardware adaptations in combination with Microsoft Office, Internet Explorer, and other academic applications.

DR 45L Adapted Computer Laboratory (1)
3 hours laboratory
Note: *Pass/No Pass grading only; may be taken 4 times*
Non-degree Applicable
Provides supervised hands on opportunities to acquire and reinforce skills on computer equipment adapted for students with disabilities.

DR 47 Topics in Disability Resource (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or lecture/laboratory may be scheduled by the department.
Note: *May be taken 3 times*
Non-degree Applicable
Topics in disability resource. See Class Schedule for specific topic offered. Course title will designate subject covered.

Drafting Technology (DT)

Contact the Design and Consumer Eudcation Department for further information.
(760) 744-1150, ext. 2349
Office: ST-49

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Computer Assisted Drafting
- Drafting Technology - Multimedia
- Drafting Technology - Technical
- Electro-Mechanical Drafting and Design
- Interactive Media Design - Emphasis in 3D Modeling and Animation
- Interactive Media Design - Emphasis in Multimedia Design

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Computer Assisted Drafting
- Drafting Technology - Multimedia
- Drafting Technology - Technical
- Electro-Mechanical Drafting and Design
- Interactive Media Design - Emphasis in 3D Modeling and Animation
- Interactive Media Design - Emphasis in Multimedia Design

PROGRAMS OF STUDY

Computer Assisted Drafting

Prepares students in the skills necessary for employment as a computer assisted drafting operator.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DT/ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT 127	AutoCAD Customization	2
DT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 131	SolidWorks Advanced 3D Design and Presentation	3
IT 108/ WELD 108	Technical Mathematics	3
or		
MATH 50	Beginning Algebra	4
or		
MATH 50A	Beginning Algebra Part I	2
and		
MATH 50B	Beginning Algebra Part II	2
or		
MATH 56	Beginning/Intermediate Algebra	6
or		
MATH 60	Intermediate Algebra	4
Electives (Select 12 units)		
ARCH 200	Advanced Computer Aided Architectural Drafting	4
DT 110	Technical Drafting I with AutoCAD	4
DT 111	Technical Drafting II with AutoCAD	4
DT 116	Geometric Dimensioning and Tolerancing	3
DT 196A	Special Problems in Drafting	1 - 3
or		
DT 196B	Special Problems/CAD	1 - 3
DT 202	Introduction to Revit Architecture	3
DT 210	Printed Circuit Board Design	3
DT 211	Advanced Printed Circuit Board Design	3

MATH 110	College Algebra	4
or		
MATH 115	Trigonometry	3
CE 100	Cooperative Education	1 - 4
or		
CE 105	Job Hunting Techniques	1 - 3
TOTAL UNITS		**29 - 32**

Drafting Technology - Multimedia

Prepares students in the skills necessary for employment in the multimedia presentation field.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
DT/ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max – Advanced 3D Modeling/Animation	3
DT 184	Real Time 3D Technical/Game Animation	2
IT/WELD 108	Technical Mathematics	3
or		
MATH 50A	Beginning Algebra Part I	2
and		
MATH 50B	Beginning Algebra Part II	2
or		
MATH 50	Beginning Algebra	4
Electives (Select 12 units)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
CE 105	Job Hunting Techniques	1, 2, 3
COMM 100	Mass Media in America	3
CSIT 120/		
R CSIS 120	Computer Applications	3
DT 131	SolidWorks Adv to 3D Design and Presentation	3
DT 196A	Special Problems in Drafting	1 - 3
or		
DT 196B	Special Problems in Computer Aided Drafting	3
DT 202	Introduction to Revit Architecture	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	3
GCMW/		
R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
MATH 110	College Algebra	4
or		
MATH 115	Trigonometry	3
MUS 180	Computer Music I	3
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**33 - 36**

Drafting Technology - Technical

Prepares students in the skills necessary for employment as a drafter in machine, mechanical, electrical, aeronautical, civil, and other related engineering fields.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
DT 110	Technical Drafting I with AutoCAD	4
DT 111	Technical Drafting II with AutoCAD	4
DT 125 /		
ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT 127	AutoCAD Customization	2
DT 128	SolidWorks Introduction to 3D Design and Presentation	3
DT 131	SolidWorks Advanced 3D Design and Presentation	3
IT 108 /		
WELD 108	Technical Mathematics	3
or		
MATH 50A	Beginning Algebra Part I	2
and		
MATH 50B	Beginning Algebra Part II	2
or		
MATH 50	Beginning Algebra	4
or		
MATH 60	Intermediate Algebra	4
Electives (Select 6 units)		
CSIT 120 /		
R CSIS 120	Computer Applications	3
DT 100	Basic Mechanical Drawing	3
DT 116	Geometric Dimensioning and Tolerancing	2
DT 130	CAD/CAM Machining	3
DT 180	3D Studio Max - Introduction to 3D Modeling and Animation	3
DT 182	3D Studio Max-Advanced 3D Modeling and Animation	3
DT 184	Real Time 3D Technical/Game Animation	2
DT 196A	Special Problems in Drafting	1 - 3
or		
DT 196B	Special Problems in Computer Aided Drafting	1 - 3
DT 202 /		
ARCH 202	Introduction to Revit Architecture	3
MATH 110	College Algebra	4
or		
MATH 115	Trigonometry	3
SURV 105	Survey Map Production	4
CE 100	Cooperative Education	1 - 4
or		
CE 105	Job Hunting Techniques	1 - 3
TOTAL UNITS		**31 - 32**

Electro-Mechanical Drafting and Design

Drafts detailed working drawings of electro mechanical equipment and devices. Indicates dimensions, materials, and manufacturing procedures for electronic industry.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
DT 110	Technical Drafting I with AutoCAD	4
DT 111	Technical Drafting II with AutoCAD	4
DT/ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 127	AutoCAD Customization	2
DT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 210	Printed Circuit Board Design	3
DT 211	Advanced Printed Circuit Board Design	3
IT/WELD 108	Technical Mathematics	3
or		
MATH 50A	Beginning Algebra Part I	2
and		
MATH 50B	Beginning Algebra Part II	2
or		
MATH 50	Beginning Algebra	4
or		
MATH 60	Intermediate Algebra	4
Electives (Select 6 units)		
CSIT 120/		
R CSIS 120	Computer Applications	3

DT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT 130	CAD/CAM Machining	3
DT 131	SolidWorks Advanced 3D Design and Presentation	3
DT 196A	Special Problems in Drafting	1 - 3
or		
DT 196B	Special Problems in CAD	1 - 3
MATH 110	College Algebra	4
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**31 - 32**

Interactive Media Design

Prepares students with specific skills necessary for employment in the field of multimedia design and production. Students may choose an emphasis in either 3D modeling and animation, which emphasizes production skills and authoring systems, or multimedia design, which emphasizes content development and visual design of multimedia productions. Both areas of emphasis collaborate on an actual multimedia production.

Emphasis in 3D Modeling and Animation

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
ARTI 100	Introduction to Illustration	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max – Adv 3D Modeling/Animation	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	4
GCMW 204	Motion Graphics for Multimedia	4
Electives (Select two courses)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
DT 128	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
GCIP 240	Digital Imaging/Photoshop III	4
GCMW 100	History of Multimedia	3
GCMW 201	Multimedia II	4
ENTT/RTV 120	Digital Television Production	3
TOTAL UNITS		**26 – 27**

Emphasis in Multimedia Design

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
ARTD 100	Graphic Design I	3
ARTD 220	Motion Design	3
ARTI 247	Digital 3D Design and Animation	3
GCIP 240	Digital Imaging/Photoshop III	4
GCMW/		
R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
GCMW 204	Motion Graphics for Multimedia	4
Electives (Select two courses)		
ART 197G	Topics in Art – Computer Art	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 246	Digital 3D Design/Modeling	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max – Adv 3D Modeling/Animation	3
GC 100	Graphic Communications	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	4
GCMW 100	History of Multimedia	3
GCMW 197B	Topics in Multimedia	3
GCMW/		
R GCMW 102	Web Page Layout I	4
GCMW 203	Web Multimedia	4
MUS 180	Computer Music I	3
RTV 170	Introduction to Video Editing	3
TOTAL UNITS		**31 - 33**

Interactive Media Design A.A. Degree or Certificate of Achievement is also listed in Art and in Graphic Communications.

COURSE OFFERINGS

DT 100 Basic Mechanical Drawing (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Fundamentals of mechanical drawing including theory, lettering, sketching, geometric constructions, orthographic projection, sectioning, developments, dimensioning, and pictorial and working drawings.

DT 110 Technical Drafting I with AutoCAD (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ARCH 125, or concurrent enrollment in DT/ARCH 125*
Transfer acceptability: *CSU*
Fundamentals of drafting including lettering, sketching, instruments, geometric constructions, orthographic projections, dimensioning, tolerancing, sectional views and auxiliary views. Drafting will be performed on the computer using AutoCAD software.

DT 111 Technical Drafting II with AutoCAD (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 110 and DT 125/ARCH 125*
Transfer acceptability: *CSU*
The study of Advanced Drafting practices using AutoCAD software. Basic studies will lead into geometric dimensioning, tolerancing, pictorial drafting, descriptive geometry and revolutions. Working/shop drawings in topography, developments, cabinet/millwork, structural steel, and welding will be performed.

DT 116 Geometric Dimensioning and Tolerancing (2)
2 hours lecture
Transfer acceptability: *CSU*
An introduction to geometric dimensioning and tolerancing as used in the electro/mechanical industry. The student will learn to identify and use appropriate geometric symbols and techniques of geometric dimension and produce industrial quality drawings.

DT 125 AutoCAD Introduction to Computer Aided Drafting (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as ARCH 125. May be taken 2 times; maximum of 4 completions in any combination of DT/ARCH 125, DT 126 and DT 127.*
Transfer acceptability: *CSU; UC – DT/ARCH 125 and 126 combined: maximum credit, one course*
An introduction to computer aided drafting using AutoCAD software and IBM compatible computers. Hands on experience with AutoCAD to include the following operations: preparing and editing drawings, storage and retrieval of drawings, and production of commercial quality drawings on a plotter. Introductory computer terminology and techniques in Windows.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

DT 126 AutoCAD Intermediate Computer Aided Drafting (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ARCH 125*
Note: *May be taken 2 times; maximum of 4 completions in any combination of DT/ ARCH 125, DT 126 and DT 127.*
Transfer acceptability: *CSU; UC – DT 125 and 126 combined: maximum credit, one course*
Advanced theory and hands on operation of a CAD system. Emphasis is placed on large scale drawings, three dimensional software techniques, orthographic projections, and complex computer aided manufacturing applications.

DT 127 AutoCAD Customization (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ARCH 125*
Note: *May be taken 2 times; maximum of 4 completions in any combination of DT/ ARCH 125, DT 126 and DT 127.*
Transfer acceptability: *CSU*
Advanced theory and hands on operation of a CAD system. Emphasis is placed on increased productivity using customization and portfolio presentation for successful career opportunities.

DT 128 SolidWorks Introduction to 3D Design and Presentation (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ARCH 125*
Recommended preparation: *DT 110*
Note: *May be taken 2 times.*
Transfer acceptability: *CSU*
Advanced theory and hands on operation of three-dimensional software techniques. Emphasis is placed on wireframe, surface, solid, and parametric three-dimensional modeling.

DT 129 Basic Architectural Drafting with Auto CAD (3)
6 hours lecture /laboratory
Transfer acceptability: CSU
Basic fundamentals of architectural drafting using AutoCAD software to include the following drawings: plot plans, floor plans, foundation plans, framing plans, sections, elevations, and basic construction details.

DT 130 CAD/CAM Machining (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 110 and DT 128*
Transfer acceptability: *CSU*
Note: *Cross listed as as WELD 130. May be taken 2 times*
Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

DT 131 SolidWorks Advanced 3D Design and Presentation (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 128*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced theory and hands-on operation of solid and parametric three-dimensional models. Emphasis is placed on creating molds, advanced sheet metal design and developing dynamic assemblies.

DT 140 Electronic Drafting and Design (3)
1½ hours lecture - 4½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Electro mechanical drafting and design generally required for an entry level position in the electronic industry.

DT 180 3D Studio Max – Introduction to 3D Modeling and Animation (3)
1½ hours lecture - 4½ hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
An overview of 3D Studio Max. Hands-on operation of the software to produce basic three-dimensional models and basic technical animations.

DT 182 3D Studio Max – Advanced 3D Modeling and Animation (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 180*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced 3D Studio Max applications to create special visual effects for high-end image production. Advanced keyframing, time-based editing, controllers, and video post will be employed to master state-of-the-art rendering and animation. The class is structured to help students start using 3D Studio Max in a production environment.

DT 184 Real Time 3D Technical/Game Animation (2)
1 hour lecture - 3 hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Students will create interactive 3D applications using a direct X base real time engine for the game industry, computer based training and product visualization.

DT 185 Architectural 3D Studio MAX (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ARCH/DT 125*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
An overview of 3D Studio MAX and AutoCAD to create realistic architectural three-dimensional models for rendering and animation.

DT 196A Special Problems in Drafting (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course is designed to aid the student in the enrichment of the area of concentration in drafting and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

DT 196B Special Problems in Computer Aided Drafting (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU*
This is an advanced course designed to aid the student in the enrichment of an area of concentration in AutoCAD and third party drafting software and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

DT 197 Drafting Technology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Drafting. See class schedule for specific topic covered. Course title will designate subject covered.

DT 202 Introduction to Revit Architecture (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ARCH 200*
Note: *Cross listed as as ARCH 202. May be taken 2 times*
Transfer acceptability: *CSU*
Preparation of basic 3D architectural information models and (BIM). Manipulation for preparation of individual architectural working drawings, including: dimensioned floor plans, building sections, elevations, etc. using Revit software.

DT 210 Printed Circuit Board Design (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 110*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Instruction in printed circuit board design generally required for entry level positions in the electronic industry. Includes artwork and complete documentation

for analog and digital multi-layer, flexible and high-speed boards using current IPC standards. Drafting will be performed on the computer using high-end printed circuit board software.

DT 211 Advanced Printed Circuit Board Design (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 210*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced problems and instruction in printed circuit board design generally required for entry-level position in the electronic industry. Special emphasis will be placed on advanced applications including surface mount technology. Includes artwork and complete documentation for analog and digital multi-layer, flexible and high-speed boards using current IPC standards. Drafting will be performed on the computer using AutoCAD and PADS software.

Earth Sciences (ES)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G

COURSE OFFERINGS

ES 100 The Earth as a System: Case Studies of Change in Space and Time (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An overview of the fields of geology, geography, oceanography, and astronomy that approach Earth as a system. Areas of study include those related to plate tectonics, earthquakes, volcanoes, geologic time, landscape evolution, weather systems, ocean circulation, climate change, and exploration of the solar system.

ES 115 Natural Disasters and Environmental Hazards (3)
3 hours lecture
Note: *Cross listed as GEOG 115*
Transfer acceptability: *CSU; UC*
Examination and analysis of natural disasters and environmental hazards including earthquakes, tsunamis, volcanic activity, hurricanes, flooding, air and water pollution, and global climate change.

ES 195 Regional Field Studies in Earth Science (1, 2, 3)
2, 4 or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Extended field studies that examine Earth Science-related topics in selected regions. Emphasis is upon field observation, interpretation, and analysis of varying Earth Science phenomena including formation of landforms, natural resources, ecosystems, climate patterns, tectonic processes and human impacts.

Economics (ECON)

Contact the Economics, History and Political Science Department for further information.
(760) 744-1150, ext. 2412
Office: P-17K
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Economics

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Economics

PROGRAM OF STUDY

Economics

Provides lower division preparation for pursuing advanced studies in economics or prepares a complementary base for many professions and areas of interest including business administration, law, engineering, journalism, public administration, and environmental studies. Transfer students should consult the four year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
ECON 101	Principles of Economics (Macro)	3
ECON 102	Principles of Economics (Micro)	3
Group I (Select 6 units)		
ECON 110	Comparative Economic Systems	3
ECON 115	Economic History of the United States	3
ECON 295	Directed Study in Economics	3
IBUS 100	Intro to Int'l Business Management	3
Group II (Select 7-8 units)		
MATH 110	College Algebra	4
MATH 120	Elementary Statistics	3
MATH 130	Calculus for the Social Sciences	4
Group III (Select 3 units)		
CSIT 105	Computer Concepts and Applicatons	3
PHIL 115	Critical Thinking	3
TOTAL UNITS		**22 - 23**

COURSE OFFERINGS

ECON 100 Basic Economics (3)
3 hours lecture
Note: *Not intended for programs which require Principles of Economics ECON 101 and/or 102*
Transfer acceptability: *CSU; UC – no credit if taken after ECON 101 or 102*
A study of the American economic system as it affects the decision making of the individual as income earner, taxpayer, and voter. Emphasis is on application of the analyses of supply and demand, productivity, wages and the labor force, the money and banking system, the role of government, and domestic and international economic issues.

ECON 101 Principles of Economics (Macro) (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 60*
Transfer acceptability: *CSU; UC*
Descriptive analysis of the structure and functioning of the economy of the United States. Emphasizes national income, problems of inflation and unemployment, the role of government, specifically fiscal and monetary policies, money and banking, economic growth, and analysis of global issues.

ECON 102 Principles of Economics (Micro) (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 60*
Transfer acceptability: *CSU; UC*
Analyzes decision-making of individuals and groups as it relates to economic behavior. Examines market structures and resource markets under varying degrees of competition. Investigates causes of market failures such as public goods and externalities. Includes international trade and finance.

ECON 110 Comparative Economic Systems (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of various types of economic institutions and decision making systems. Emphasis is given to the theories of capitalism, Marxian economics, and the vari-

ous types of social market economies. The theories will be applied to the study of several countries, including the former Soviet Union, Japan, China, Mexico, and a Western European country, as they compare to the United States.

ECON 115 Economic History of the United States (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Development of the United States economy from the colonial period to the present. Emphasis will be on the evolution of such institutions as labor unions, business, banking, and government. Economic theory will be used to analyze historical problems.

ECON 197 Economics Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Economics. See Class Schedule for specific topic offered. Course title will designate subject covered.

ECON 295 Directed Study in Economics (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: May be taken 4 times
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study for students who have demonstrated a proficiency in economics subjects and have the initiative to work independently on projects or research that does not fit into the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Education (ED)

Contact Reading Services for further information.
(760) 744-1150, ext. 2568
Office: RC-1

COURSE OFFERINGS

ED 200 Careers in Teaching (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An overview of the teaching profession for those students contemplating a career in education. Foundations of education, critical issues in the classroom, and the history and philosophy of education are addressed. Effective and active learning, diversity in the classroom and teaching profession standards are discussed. Guided classroom observations (45 hours) of a K-12 classroom in a variety of subject areas are a requirement for this course.

Electrician Trainee (ELTR)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

Certificates of Achievement

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Electrician Trainee

PROGRAM OF STUDY

Electrician Trainee

The Electrician Trainee program prepares the student in the elements of electrical inside construction in compliance with the requirements of State of California for non-certificated electricians. Upon completion of the program, the student is eligible to take the California State Electricians Certification exam.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ELTR 101	Introduction to the Electrical Trade and Industry and Construction Safety	3.5
ELTR 102	Introduction to Electrical Theory, Basic Algebra Concepts, and the National Electric Code	3.5
ELTR 103	Advanced DC Circuit Concepts, Introduction to 3Ø Circuits, and National Electric Code Applications	3.5
ELTR 104	AC Circuit Concepts, Applied Electronics, and National Electric Code Applications	3.5
ELTR 105	Digital Logic Circuits, Conductor Characteristics and Applications, and National Electric Code	3.5
ELTR 106	Overcurrent Protection, Lighting Systems, Basic Blueprints and Specifications, and National Electric Code	3.5
ELTR 107	Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and National Electric Code	3.5
ELTR 108	Motor Control Principles, Generators and Power Supplies, and National Electric Code	3.5
ELTR 109	Transformer Theory, Leadership and Management, and Test Equipment	3.5
ELTR 110	Specialty Systems	3.5
TOTAL UNITS		**35**

COURSE OFFERINGS

ELTR 101 Introduction to the Electrical Trade and Industry and Construction Safety (3.5)
3 hours lecture- 1½ hours laboratory
Note: *May be taken 4 times*
Examines safety issues surrounding construction jobsites and installation of electrical systems. Includes OSHA 10 certification, identification of job-site hazards, safe work practices and personal protective equipment for various construction site hazards. Care for breathing and cardiac emergencies along with basic first aid and AED training for both adults and children is covered. Substance abuse will be addressed. Basic math operations will be reviewed and reinforced.

ELTR 102 Introduction to Electrical Theory, Basic Algebra Concepts, and the National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Note: *May be taken 4 times*
Provides an introduction to algebraic and trigonometric concepts and application of their principles to solve basic electrical equations and layout conduit bends. Teaches the student to apply basic electrical theory to predict circuit behavior. Basic conduit bending techniques will be developed. The National Electric Code will be introduced.

ELTR 103 Advanced DC Circuit Concepts, Introduction to 3Ø Circuits, and National Electric Code Applications (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 102*
Note: *May be taken 4 times*
Study of circuit analysis techniques, series, parallel, and combination DC circuits, test instruments, National Electric Code (NEC), and elementary 3Ø circuits.

ELTR 104 AC Circuit Concepts, Applied Electronics, and National Electric Code Applications (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 103*
Note: *May be taken 4 times*
Study of AC theory, exploration of inductance and capacitance and the effect of their reactance on AC circuits and the application of electronic concepts and components.

ELTR 105 Digital Logic Circuits, Conductor Characteristics and Applications, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 104*

Note: *May be taken 4 times*
Study of digital logic concepts and their real-world application. Identification, selection, and installation of electrical conductors.

ELTR 106 Overcurrent Protection, Lighting Systems, Basic Blueprints and Specifications, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 105*
Note: *May be taken 4 times*
Study of blueprints and specifications. Application of the National Electric Code to cover current protection, panelboards, and lighting systems.

ELTR 107 Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 106*
Note: *May be taken 4 times*
Advanced concepts for blueprints and specifications. Study of motor design and application and National Electric Code concepts.

ELTR 108 Motor Control Principles, Generators and Power Supplies, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 107*
Note: *May be taken 4 times*
Addresses techniques for controlling AC and DC motors. Students examine conventional and breaking technologies for power generation.

ELTR 109 Transformer Theory, Leadership and Management, and Test Equipment (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 108*
Note: *May be taken 4 times*
Explores the theory and field application of transformers. Electrical test equipment operation and use will be addressed. Includes management and leadership principles for supervisors. Special equipment for security systems is discussed.

ELTR 110 Specialty Systems (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 109*
Note: *May be taken 4 times*
Examines specialty electrical systems commonly found in building construction. Includes fire alarm systems, closed-circuit television (CCTV) systems, telephone systems, cable television (CATV & MATV) systems, local area networks (LANs), fiber optic data systems, heating and air conditioning control systems, and lightning protection systems.

Electro-Mechanical Equipment Technician (EMET)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Mail Processing Equipment Mechanic

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Maintenance Mechanic

PROGRAMS OF STUDY

Mail Processing Equipment Mechanic

This certificate will provide the student with the necessary knowledge, skills and abilities to perform at the level of Mail Processing Equipment Mechanic level 8. Students will learn to maintain the electrical and mechanical components for various mail processing eqiuipment.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CI 105	Electrical Codes I	3
CI 106	Electrical Codes II	3
DMT 81	Basic Hydraulics	4
EMET 50	Basic Mechanics for Servicing Electro-Mechanical Equip.	3
EMET 51	Mail Processing Equipment Mechanic Exam Preparation	3
IT/WELD 108	Technical Mathematics	3
TOTAL UNITS		**19**

Maintenance Mechanic

Specifically for individual employed or seeking employment in a medium to large distribution center and to prepare candidates to pass the mail processing equipment (EMET) technician's examination.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
EMET 50	Basic Mechanics for Servicing Electro-Mechanical Equip.	3
EMET 51	Mail Processing Equipment Mechanic Exam Preparation	3
TOTAL UNITS		**6**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

EMET 50 Basic Mechanics for Servicing Electro-Mechanical Equipment (3)
3 hours lecture
Recommended preparation: *Knowledge of simple algebraic equations; different number systems; different types of gears; mechanical advantage; and fluid dynamics*
Provides students with a basic overview of the maintenance process for postal service electro-mechanical equipment. Topics of study include levers and lever assemblies, gears and gear trains, sprockets and pulleys, basic hydraulics.

EMET 51 Mail Processing Equipment Mechanic Exam Preparation (3)
3 hours lecture
Recommended preparation: *Technical Mathematics-Ability to perform simple algebraic equations; Electricity-Understand DC and AC fundamentals; Electronics-Understand basic electronic principles; Mechanics-Understand basic mechanic fundamentals; Digital Electronics-Understand basic digital electronic principles.*
Designed to prepare students for the U.S. Postal Service Maintenance Mechanic, MPE-8 Entrance Examination. Highly recommended for students interested in a U.S. Postal Service Career focusing on equipment maintenance. Topics will cover all the aspects of mail processing equipment (MPE) maintenance, such as mechanics, electrical, and basic electronic systems.

Emergency Medical Education (EME)

Contact the Emergency Medical Education Department for further information.
(760) 744-1150, ext. 8150
Office: ESC-610

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Paramedic Training

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Paramedic Training

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• EMT Basic

College Credit for Certified Paramedics
This policy is for granting college credit for certified paramedics toward an Associate in Arts degree in Emergency Medical Technician Paramedic. In order for an already certified Paramedic to be granted college units for his/her certification, the following requirements must be met:

1. The EMT P must be currently certified in California as an EMT P.
2. The EMT P must be currently registered at Palomar College.

EMT P Credit

1. The student may receive a maximum of 40.5 units for EMT P training, which is equal to the number of units given at Palomar College for the EMT P courses.
2. The student may receive a maximum of 7 units for former EMT B training, which is equal to the number of units given at Palomar College for the EMT B courses.
3. The student may not receive duplicate credit for any other EMT B or EMT P courses.

Degree Requirements
The Associate in Arts degree in Emergency Medical Technician Paramedic requires 60 units. The following criteria must be met:

1. 30 units must be issued by an accredited college on a letter grade basis, of which 12 units must be completed at Palomar College.
2. All other general education and competency requirements for the Associate in Arts degree as provided in the college catalog must be met.
3. When the student has completed the general education and competency requirements for the Associate in Arts degree and the 12 units required to be completed at Palomar College, the student will be awarded unit credit for education/training received in becoming an EMT P.

Paramedics interested in taking advantage of this policy should contact the Emergency Medical Education Department at (760) 744 1150, ext. 8150. Paramedics will be required to provide a copy of his or her paramedic license and course completion certificate for verification of paramedic licensure. Paramedics must also send prior college transcripts to the College and make an appointment with the Counseling Department at (760) 744-1150, ext. 2179 for evaluation of general education requirements.

PROGRAMS OF STUDY

EMT Basic

This program prepares the student with the knowledge and skills necessary to take the National Registry EMT examination and enter the workforce in the State of California.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
EME 100/PE 104	First Responder	3
EME 106	Emergency Medical Technician Basic (Lecture)	6
EME 106L	Emergency Medical Technician Basic Skills (Laboratory)	1
Total Units		**10**

Paramedic Training

The Paramedic Program prepares the student in all elements of prehospital advanced life support. Upon successful completion of the program, the student is eligible to take the State of California EMT-P certification exam, which is the National Registry Emergency Medical Technician-Paramedic Exam.

Admission to the program is by special application.
To be eligible for consideration, the applicant must:

1. Have one year full-time pre-hospital experience as an EMT Basic.
2. Be eligible for admission to Palomar College.
3. Meet academic requirements outlined in the Paramedic Program brochure produced by the EME Program.

AND

4. Have completed ZOO 145 with a grade of 'C' or better and EME 175 and EME 175L with a "B" or better.

Prerequisite Courses		Units
ZOO 145	Intro to Anatomy/Physiology	3
EME 106	EMT Basic (Lecture)	6
EME 106L	EMT Basic Skills (Laboratory)	1
EME 175	Paramedic Preparation (Lecture)	2
EME 175L	Paramedic Preparation Skills (Laboratory)	1

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Students must achieve a minimum score of 80% in each of the required courses in order to continue in the program.

Program Requirements		Units
EME 206	Intro/Paramedic Training (Lecture)	4
EME 206L	Intro/Paramedic Training (Laboratory)	1
EME 207	Paramedic Medical Training (Lecture)	10
EME 207L	Paramedic Medical Skills (Laboratory)	1.5
EME 208	Paramedic Trauma Training (Lecture)	4.5
EME 208L	Trauma Skills (Laboratory)	.5
EME 209	Paramedic Obstetrical/Pediatric Training (Lecture)	2.5
EME 209L	Paramedic Obstetrical/Pediatric Skills (Laboratory)	.5
EME 210	Hospital Clinical Experience	4
EME 211	Clinical Integration I	1.5
EME 212	Clinical Integration II	1.5
EME 215	Field Internship	9
TOTAL UNITS		**40.5**

Note: EME 220, 223, and/or 224 are to be taken by students who have not satisfactorily met program requirements. The EME Department will determine which course or courses should be taken and the number of hours required to make up the deficiencies.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.
EME courses may not be taken as an audit.

EME 55 CPR for Health Care Providers (.5)
½ hour lecture
Note: *Pass/No Pass grading only; may be taken 4 times*
Cardio-pulmonary resuscitation (CPR) course for one person CPR, two person CPR, child CPR, infant CPR, AED, obstructed airway, BVM, and mouth-to-mask ventilation based on current American Heart Association standards.

EME 100 First Responder (3)
3 hours lecture
Note: *Cross listed as PE 104*
Transfer acceptability: *CSU; UC*
The study and application of emergency medical skills and procedures, including basic anatomy and physiology, terminology, and prevention of disease transmission, for CPR certification from the American Heart Association.

EME 106 Emergency Medical Technician Basic (Lecture) (6)
6 hours lecture
Prerequisite: *Current BLS course CPR card and Emergency Response or equivalent card, and must be age 18 by the first day of class. Proof of meeting the prerequisite will be required at the first class meeting.*
Corequisite: *EME 106L*
Note: *May not be taken for Pass/No Pass grading; may only be taken 2 times*
The study of EMT theory and knowledge required for identification and treatment of pre-hospital emergencies. The course prepares the student for National Registry, California, and San Diego County EMT-Basic certification.

EME 106L Emergency Medical Technician Basic Skills (Laboratory) (1)
3 hours laboratory
Prerequisite: *Current American Heart Association CPR for Health Care Providers CPR and American Red Cross Emergency Response card, and must be age 18 on the first day of EME 106*
Corequisite: *EME 106*
Note: *Pass/No Pass grading only; may be taken 2 times*
Application of skills required for treatment of pre-hospital emergencies. This course prepares the student for National Registry, California, and San Diego County EMT-Basic certification. Student is required to complete 16 hours supervised ambulance and emergency department observation.

EME 116 Emergency Medical Technician Refresher Course (1.5)
1½ hour lecture
Prerequisite: *Possess a valid current EMT-B, EMT-II or EMT-P certificate, or have possessed one within the last four years*
Note: *Pass/No Pass grading only*
Review of basic EMT material and update of new material and techniques. Meets State of California requirements for EMT-B recertification continuing education units. An Optional NREMT-B Recertification Exam available the day after the class ends.

EME 125 EMT Interface (5)
2 hours lecture- 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in EME 106 or EMT Basic, or concurrent enrollment in EME 106*
Note: *Pass/No Pass grading only*
Necessary skills to take the EMT Basic from the classroom to the work environment. Covers county EMS legalities, and provides more in-depth knowledge and skills for EMS personnel to improve success and advancement in the EMS workforce.

EME 175 Paramedic Preparation (2)
2 hours lecture
Prerequisite: *Current EMT with a minimum of 3 months full time pre-hospital experience*
Corequisite: *EME 175L*
An overview of paramedic-level assessment skills combined with appropriate paramedic-level anatomy, physiology, and treatment relevant to the disease processes studied.

EME 175L Paramedic Preparation Skills (Laboratory) (1)
3 hours laboratory
Prerequisite: *Current EMT with a minimum of 3 months full time pre-hospital experience*
Corequisite: *EME 175*
Note: *Pass/No Pass grading only*
Performance of EMT skills combined with appropriate paramedic-level anatomy, physiology and treatment relevant to the disease processes studied.

EME 196 Special Problems in Field Internship (3, 3.5, 4, 4.5, 5)
9, 10½, 12, 13½, or 15 hours laboratory
Corequisite: *EME 210 or EME 215*
Application of skills and knowledge necessary for student to successfully complete either the Clinical or Field Internship of Paramedic Training. This is for a student who needs to be extended up to 10 shifts to allow fulfillment of EME 210 or 215 course obligations and requires an individual student specific contract.

EME 197A Emergency Medical Education Workshop: Emergency Medical Technician-Paramedic (.5-6)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Workshops to provide upgrading of knowledge and skills relative to paramedics. Will provide paramedic continuing education hours for classroom time. See Class Schedule for specific topic covered. Course title will designate subject covered.

EME 197B Emergency Medical Education Workshop: Emergency Medical Technician-Basic (.5-6)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Workshops to provide upgrading of knowledge and skills relative to EMT's. Will provide EMT continuing education hours for classroom time as indicated by topic. See Class Schedule for specific topic covered. Course title will designate subject covered.

EME 197E Emergency Medical Education Workshop: General (.5-6)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Innovative and creative aspects updating Emergency Medical Education professions. See Class Schedule for specific topic covered. Course title will designate subject covered.

EME 200 Advanced Cardiac Life Support (1)
1 hour lecture
Prerequisite: *Current CPR for Health Care Providers Certificate or "BLS" CPR card and must be an M.D., R.N. or EMT-P*
Note: *Pass/No Pass grading only; may be taken 4 times*
Advanced Cardiac Life Support knowledge and skills necessary to provide the appropriate early treatment for cardiopulmonary arrest. Based on current American Heart Association guidelines.

EME 201 Pediatric Advanced Life Support (1)
1 hour lecture
Prerequisite: *Current CPR for Health Care Providers Certificate or "BLS" CPR card and must be an M.D., R.N., or EMT-P*
Note: *May be taken 3 times*
Pediatric Advanced Life Support knowledge and skills necessary to provide the appropriate early treatment for pediatric emergencies. Based on current American Heart Association guidelines.

EME 202 Prehospital Trauma Life Support (1)
1 hour lecture
Prerequisite: *Current CPR for Health Care Providers Certificate or "BLS" CPR card and must be an M.D., R.N. or EMT-P*
Note: *Pass/No Pass grading only; may be taken 3 times*
Knowledge and skills taught to provide prehospital trauma life support appropriate for the care of the trauma patient. National Association of Emergency Medical Technicians based course.

EME 203 Paramedic Challenge (Lecture) (2)
2 hours lecture
Prerequisite: *RN, MD, PA or former Paramedic who meets State of California challenge requirements*
Corequisite: *EME 203L*
Note: Pass/No Pass grading only; may be taken 2 times
Didactic challenge course for individuals who qualify for Paramedic Challenge per State of California Code of Regulations, Title 22. Allows the individual to attend the didactic portion of Paramedic training as needed to meet paramedic course content per individual student contract.

EME 203L Paramedic Challenge Skills (Laboratory) (.5)
1½ hours laboratory
Prerequisite: *RN, MD, PA or former Paramedic who meets State of California challenge requirements*
Corequisite: *EME 203*
Note: Pass/No Pass grading only; may be taken 2 times
Application of skills necessary for challenge course for individuals who qualify for Paramedic Challenge per State of California Code of Regulations, Title 22. Allows the individual to attend the skills portion of Paramedic Training as needed to meet paramedic course content per individual student contract.

EME 206 Introduction to Paramedic Training (Lecture) (4)
4 hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 206L*
Note: *May be taken 2 times*
Introduction to Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 206L Introduction to Paramedic Training (Laboratory) (1)
3 hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 206*
Note: *Pass/No Pass grading only; may be taken 2 times*
Application of skills used in the Introduction to Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 207 Paramedic Medical Training (Lecture) (10)
10 hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 207L and EME 211*
Note: *May be taken 2 times*
The study of medical diseases for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes ACLS training and certification.

EME 207L Paramedic Medical Skills (Laboratory) (1.5)
4½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 207*
Note: *Pass/No Pass grading only; may be taken 2 times*
Application of skills necessary for the medical portion of Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 208 Paramedic Trauma Training (Lecture) (4.5)
4½ hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 208L and EME 212*
Note: *May be taken 2 times*
The study of traumatic emergencies for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 208L Trauma Skills (Laboratory) (.5)
1½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 208*
Note: *Pass/No Pass grading only; may be taken 2 times*
Application of skills necessary for trauma class of Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 209 Paramedic Obstetrical and Pediatric Training (Lecture) (2.5)
2½ hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 209L and EME 212*
Note: *May be taken 2 times*
The study of Obstetrical and Pediatric emergencies for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals.

EME 209L Paramedic Obstetrical and Pediatric Skills (Laboratory) (.5)
1½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 209*
Note: *Pass/No Pass grading only; may be taken 2 times*
Application of skills necessary for the Obstetrical and Pediatric class for Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals.

EME 210 Hospital Clinical Experience (4)
12 hours laboratory
Prerequisite: *A minimum grade of 'C' in EME 209 and EME 209L*
Note: *May be taken 2 times*
Supervised clinical experience in acute care areas of hospitals where knowledge of advanced life support techniques is necessary.

EME 211 Clinical Integration I (1.5)
4½ hours laboratory
Corequisite: *EME 207*
Note: *May be taken 2 times; Pass/No Pass grading only*
Application of assessment and BLS skills necessary to be successful in Paramedic Training.

EME 212 Clinical Integration II (1.5)
4½ hours laboratory
Corequisite: *EME 208 and EME 209*
Note: *Pass/No Pass grading only; may be taken 2 times*
Application of assessment and BLS skills necessary to be successful in Paramedic Training.

EME 215 Field Internship (9)
28 hours laboratory
Prerequisite: *A minimum grade of 'C' in EME 210*
Note: *May be taken 2 times*
Assignment to a response vehicle with a field preceptor. Includes direct patient care responsibilities in providing advanced life support.

EME 220 Paramedic Refresher (2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8)
2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8 hours lecture
Prerequisite: *Provide proof of receiving a failing grade in one or more of the following courses: EME 207, 207L, 208, 208L, 210, 215 within the previous 24 months.*
Provides students who were unsuccessful in one or more of the following courses, EME 207, 207L, 208, 208L, 210 or 215, an opportunity to refresh, strengthen, and maintain their clinical abilities and knowledge base.

EME 223 OB/Peds Block Refresher (1, 2)
1, 2 hours lecture
Prerequisite: *Provide proof of receiving a failing grade in one or more of the following courses: EME 210, 215 within the previous 24 months*
Corequisite: *EME 224*
Provides students who were unsuccessful in one or more of the following courses, EME 210 or 215, an opportunity to refresh, strengthen, and maintain their academic knowledge base in obstetrical and pediatric medicine.

EME 224 Clinical Refresher (1.5)
½ hour lecture - 3 hours laboratory
Prerequisite: *Failure in EME 215*
Corequisite: *EME 223*
Provides students who were unsuccessful in EME 215 an opportunity to refresh, strengthen, and maintain their clinical abilities and knowledge base.

EME 295 Directed Study in Emergency Medical Education (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Note: *May be taken 4 times*
Independent study for students who have demonstrated skills and/or proficiencies in Emergency Medical Education subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Engineering (ENGR)

Contact the Physics and Engineering Department for further information.
(760) 744-1150, ext. 2505
Office: NS-355B

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Engineering

PROGRAMS OF STUDY

Engineering

Provides the background to begin upper division coursework and will prepare the student for entry level jobs that require a knowledge of engineering and engineering related topics. The highly sequential nature of the engineering curriculum necessitates completion of lower division requirements before being admitted into upper division courses.

Engineering students are urged to give priority to the completion of major field requirements over the completion of general education requirements. Engineering lower division requirements are not the same for different universities. These institutions recommend that their particular lower division requirements be completed before transfer. Students should seek early assistance in planning their specific program from the Counseling Department, the Transfer Center, or the Physics/Engineering Department.

A.A. DEGREE MAJOR

Program Requirements		**Units**
(Select a minimum of 11 units)		
ARCH/DT 125 or AutoCAD	Introduction to Computer Aided Drafting	
DT 128	SolidWorks Introduction to 3D Design and Presentation	3
ENGR126	Intro Electric/Computer Engineering	4
ENGR 210	Electrical Network Analysis	3
ENGR 210L	Electrical Network Analysis Laboratory	1
ENGR 231	Engineering Measurement Analysis	3
ENGR 235	Engineering Mechanics Statics	3
ENGR 236	Engineering Mechanics Dynamics	3
ENGR 245	Properties of Materials	4
Electives (Select a minimum of 30 units)		
Note that mathematics courses are often prerequisite to engineering and physics courses.		
MATH 140*	Calculus/Analytic Geometry, First Course	5
MATH 141	Calculus/Analytic Geometry, Second Course	4
MATH 205	Calculus/Analytic Geometry, Third Course	4
MATH 206	Calculus with Differential Equations	4
PHYS 230*	Principles of Physics	5
PHYS 231	Principles of Physics	5
PHYS 232	Principles of Physics	4
CHEM 110*	General Chemistry	3
CHEM 115*	General Chemistry	3
CHEM 110L*	General Chemistry Laboratory	2
CHEM 115L*	General Chemistry Laboratory	2
MINIMUM TOTAL UNITS		**41**

Recommended Elective: ENGR 100
* Courses marked with an asterisk may be used to fulfill General Education requirements.

ENG 100, ENG 202, and BIOL 100 are highly recommended as electives to fulfill General Education requirements.

COURSE OFFERINGS

ENGR 100 Introduction to Engineering (1)
1 hour lecture
Transfer acceptability: *CSU; UC*
An overview of the engineering profession including not only the different engineering fields but also the specialized demands and rewards of each. It will afford the opportunity for community building among the students, who usually are otherwise isolated in the community college milieu. Group projects in the course will encourage socialization and human relations training in what is often perceived as a dry and dull profession. Academic success strategies will be explained and practiced; ethical concepts will be examined through case histories and practical applications.

ENGR 126 Introduction to Electrical and Computer Engineering (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 140*
Transfer acceptability: *CSU*
Introductory concepts covering a broad range of topics in Electrical and Computer Engineering presented in an integrated approach at a hands-on level. Students work in small teams to analyze, build, and test a small programmable robot for competition at the end of the semester. Provides basic understanding and skills for students to later build their theoretical understanding in more advanced physics and engineering courses.

ENGR 130 Fundamentals of Electric Circuits (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 140*
Transfer acceptability: *CSU*
Fundamentals of DC and AC: Ohm's Law, Kirchoff's Laws, Thevenin's Theorem, magnetism, transformers, capacitance, inductance, and tuned circuits. Laboratory covers application of theory, use of test equipment, circuit design, construction techniques, and troubleshooting carried out through traditional workstation procedures and by computer simulation programs.

ENGR 131 Introduction to Electronics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENGR 126 and/or ENGR 130*
Transfer acceptability: *CSU*
Fundamentals of discrete semiconductors, linear and non-linear, analog: diodes, power supplies, transistors, and amplifiers. Fundamentals of linear and non-linear, analog, integrated circuits: thyristors, frequency effects, operational amplifiers, feedback, non-liner OPAMPS, oscillators, power supplies, and communication circuits. Laboratory covers application of theory, use of test equipment, circuit design, construction techniques, and troubleshooting.

ENGR 135 Integrated Electronic Circuits (4.5)
3 hours lecture - 3 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ENGR 130*
Transfer acceptability: *CSU*
Fundamentals of linear and non linear, analog, integrated circuits: thyristors, frequency effects, operational amplifiers, feedback, non-linear OPAMPS, oscillators, power supplies, and communication circuits. Laboratory covers application of theory, use of test equipment, circuit design, construction techniques, and troubleshooting.

ENGR 197 Engineering Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Engineering. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENGR 203 Digital/Computer Electronics (4.5)
3 hours lecture - 3 hours lecture/laboratory
Recommended preparation: *ENGR 130*
Transfer acceptability: *CSU*
Fundamental logic functions of AND'ing, OR'ing, and inverting will be studied in various combinational and sequential logic circuits such as: encoders, decoders, multiplexers, demultiplexers, flip-flops, registers, counters, clocks, memories, and microprocessors. The architecture and programming of the digital microproces-

sor will be emphasized. The primary components required for proper operation of a PC (personal computer) will be addressed. Designing, testing, and troubleshooting of computers and special projects.

ENGR 210 Electrical Network Analysis (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ENGR 210L and PHYS 231, or concurrent enrollment in ENGR 210L and PHYS 231*
Transfer acceptability: *CSU; UC*
Circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, \transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 210L Electrical Network Analysis Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENGR 210, or concurrent enrollment in ENGR 210*
Transfer acceptability: *CSU; UC*
Laboratory exercises of circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 231 Engineering Measurement Analysis (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 140*
Transfer acceptability: *CSU; UC*
Analysis and treatment of engineering data. Probability, statistics, error theory, correlation and regression analysis, dimensional analysis, data processing, and preparation of technical reports. Laboratory experiments in hydraulic flow, surveying, heat transfer, and static and dynamic test systems.

ENGR 235 Engineering Mechanics – Statics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in PHYS 230 and MATH 140*
Transfer acceptability: *CSU; UC*
Force systems and equilibrium conditions. Engineering problems covering structures, machines, distributed forces, and friction. Graphical and algebraic solutions, and vectorial analysis.

ENGR 236 Engineering Mechanics – Dynamics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ENGR 235*
Transfer acceptability: *CSU; UC*
Fundamental principles of bodies in motion; kinetics and kinematics of particles; system of particles; central force; work and energy; linear and angular momentum; moments and products of inertia; vibrations and time response; engineering applications.

ENGR 245 Properties of Materials (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHEM 110 and 110L*
Transfer acceptability: *CSU,UC*
Physical properties of engineering materials. Atomic, molecular, and crystal lattice characteristics. Relations between these and mechanical, thermal, electrical, corrosion, and radiation properties. Metallic, ceramic, polymer, and agglomerate materials. Selection, treatment, and use of materials.

ENGR 295 Directed Study in Engineering (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Designed for the student who has demonstrated a proficiency in engineering subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

English (ENG)

Contact the English Department for further information.
(760) 744-1150, ext. 2392
Office: P-2

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• English

PROGRAM OF STUDY

English

Focuses on the English language and literatures in English. Provides the background for students to succeed in diverse fields, such as advertising and marketing, teaching, journalism and telecommunications, law, technical writing, and business administration. Prepares students for upper division course work in English. For specific transfer requirements, the student should consult an academic counselor or the catalog for the school to which he or she wishes to transfer.

AA DEGREE MAJOR

Program Requirements		**Units**
ENG 205 and	Introduction to Literature	3
ENG 202 or	Critical Thinking /Composition	
ENG 203	Critical Thinking/Composition Through Literature	4
Literature Surveys (Select 9 Units) Of these nine units, students must take either a two-semester survey of British literature or a semester each of British and United States literature.		
ENG 210	Survey of British Literature I	3
ENG 211	Survey of British Literature II	3
ENG 220	Survey of World Literature I	3
ENG 221	Survey of World Literature II	3
ENG 225	Literature of the United States I	3
ENG 226	Literature of the United States II	3
Elective Courses (Select 2 courses) Any of the above courses not previously taken or pick from the following:		
ENG 135	Introduction to Creative Writing	4
ENG 136	Intermediate Creative Writing	4
ENG 137	The Literary Magazine: History/Production	4
ENG 215	Introduction to the British Novel	3
ENG 230	Introduction to the American Novel	3
ENG 240	Introduction to Classical Mythology	3
ENG 245	Survey of Biblical Literature	3
ENG 250	Introduction to Shakespeare	3
ENG 260	Literature Through Film	3
ENG 265	Science Fiction	3
ENG 270	Popular Literature	3
ENG 280	Women and Literature	3
TOTAL UNITS		**22 - 24**

COURSE OFFERINGS

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of 'C' or better. The student must participate in the English placement process before enrolling in any English or English as a Second Language composition class except ENG 10 and 150. The eligibility will indicate whether the student may enroll in ENG 50 or ENG 100. Students whose first language is not English may find, however, that ESL instruction meets their needs better than immediate enrollment in ENG 10 or 50. Such students may take one or more ESL classes (ESL 101, 102, 103) instead; then by again participating in the English placement process, they may qualify for ENG 50 or ENG 100. Non resident international students may be required to take one or more classes of English as a Second Language.
Students should sign up for English assessment as soon as possible because some students may take three or more semesters to finish the competence in English. Please contact the Counseling Department for the English assessment schedule.

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

ENG 10 English Essentials (4)
4 hours lecture
Note: *A grade of 'C' or better is required for eligibility for ENG 50*
Non-degree Applicable
Offers basic instruction in grammar, usage, mechanics, sentence structure, and paragraph and essay development.

ENG 50 Introductory Composition (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 10 or eligibility determined through the English placement process*
Note: *A grade of 'C' or better is required for eligibility for ENG 100*
A writing course for the student who wants to develop fundamental essay writing skills, acquire an A.A. degree, or enter a transfer program, but who needs further preparation in composition skills.

ENG 97 English Topics (1-4)
Units awarded in topics courses are dependent upon the number of lecture hours required of the student. Refer to Class Schedule.
Note: *May be taken 3 times*
Topics in English. See class schedule for specific topic covered. Course title will designate subject covered.

ENG 100 English Composition (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 50 or eligibility determined through the English placement process*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC*
Practice in expository and argumentative writing based on analytical reading and critical thinking. Topics include methods of invention, organization and development, principles of basic research, and the elements of style.

ENG 135 Introduction to Creative Writing (4)
4 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 136 Intermediate Creative Writing (4)
4 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 137 The Literary Magazine: History and Production (4)
2 hours lecture - 6 hours laboratory
Recommended preparation: *Eligibility for ENG 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Historical examination of the genre of the literary magazine from the 18th century to the present, with an emphasis on the late 20th century. Also, after selecting and editing material for Palomar College's literary journal, Bravura, students will structure, format, produce, and distribute the magazine.

ENG 150 Introduction to Linguistics (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to the principles and practices of modern language study. Examines the origins and development of language, its social uses and implications, and its structure.

ENG 197 English Topics (1-4)
Units awarded in topics courses are dependent upon the number of lecture hours required of the student. Refer to Class Schedule.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in English. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENG 202 Critical Thinking and Composition (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 100*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC*
Provides instruction and practice in methods of critical thinking and formal composition, emphasizing the following: awareness of language and its implications through rhetorical and semiotic analysis based on systematic consideration of language in context; awareness of principles of classical argument in light of the traditions of rational thought. Students will be required to engage in both traditional and current methods of research through the use of information technology.

ENG 203 Critical Thinking and Composition Through Literature (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 100*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC*
Practice in writing essays about literature with emphasis on critical thinking, reading, and writing skills; principles of inductive and deductive reasoning; the relationship of language to logic; analysis, criticism, and advocation of ideas; methods of research; advanced elements of style and organization.

ENG 205 Introduction to Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
An introduction to fiction, poetry, drama, and other genres in literary form. Students will read and discuss assigned selections from various literary genres and examine themes, language, forms, techniques, and other strategies that influence the production and reception of literature.

ENG 210 Survey of British Literature I (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the significant texts in British literature from the Middle Ages to the Eighteenth Century; considers a variety of authors, literary genres and trends, as well the historical and cultural contexts of the literary texts.

ENG 211 Survey of British Literature II (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of significant texts in British literature from the Romantic period to the present. Considers a variety of authors, literary genres and trends, as well as the historical and cultural contexts of the literary texts.

ENG 215 Introduction to the British Novel (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the British novel through reading such writers as Aphra Behn, Daniel Defoe, Laurence Sterne, Samuel Richardson, Fanny Burney, Jane Austen, Mary Shelley, Charlotte Bronte, Emily Bronte, Wilkie Collins, Charles Dickens, George Eliot, Thomas Hardy, Joseph Conrad, Virginia Woolf, James Joyce, Jean Rhys, Chinua Achebe, Salman Rushdie.

ENG 220 Survey of World Literature I (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A survey of the major literature of Africa, the Americas, Asia and Europe from ancient times to about 1600. A comparative study of literary themes and expression will be pursued.

ENG 221 Survey of World Literature II (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A survey of the major literatures of Europe, Asia, the Americas, Africa, and Australia from about 1600 to the present. A comparative study of literary themes and influences will be pursued.

ENG 225 Literature of the United States I (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Significant texts written in the territories that would become the United States, from the pre-colonial period to the Civil War; considers a variety of literary genres and trends, with a focus on such issues as the interaction of texts and history, the expansion and politics of the literary canon, and the influence of the cultural contexts in which the literature of the United States is written and interpreted.

ENG 226 Literature of the United States II (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Significant texts written in the United States from the Civil War to the present; considers a variety of literary genres and trends, with a focus on such issues as the interaction of texts and history, the expansion and politics of the literary canon, and the influence of the cultural contexts in which the literature of the United States is written and interpreted.

ENG 230 Introduction to the American Novel (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the development of the American novel through reading such writers as Nathaniel Hawthorne, Louisa May Alcott, Herman Melville, Mark Twain, Henry James, Elizabeth Stewart Phelps, Kate Chopin, William Faulkner, Ernest Hemingway, Nella Larsen, Bernard Malamud, Zora Neale Hurston, Willa Cather, Ralph Ellison, Thomas Pynchon, Toni Morrison, Maxine Hong Kingston, Louise Erdrich, and James Baldwin.

ENG 240 Introduction to Classical Mythology (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the meaning and function of myth in the classical literature of Ancient Greece and Rome. Read translations of representative epic, poetic, and dramatic literature of Hesiod, Homer, Aeschylus, Sophocles, Euripides, Aristophanes, Vergil, and Ovid. An examination of the cultures which helped shape the literature and values with us today.

ENG 245 Survey of Biblical Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
An introduction to the study of the Bible in English as an anthology of literary types and genres: stories, poetry, proverbs, gospels, parables, epistles, satire, and visionary literature.

ENG 250 Introduction to Shakespeare (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Introduction to the life, times, background, poems, and plays of William Shakespeare.

ENG 255 Literature and Ideas (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
An introduction to selected major philosophical ideas, questions, and attitudes in significant literature of the world, from the ancient world to the present. The course will trace treatment of a thematic idea through literature of particular times and cultures. Recommended for English and Philosophy majors, and for those interested in broadening their background in the humanities.

ENG 260 Literature Through Film (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – max credit, one course*
Analysis of the expectations and conventions used in literature -- novels, short stories, dramas -- and how those expectations and conventions are affected when they are translated into film. Critical analysis of the various works and comparison/contrast of the different interpretations of these ideas will be stressed.

ENG 265 Science Fiction (3)
3 hour lecture
Prerequisite: *Eligibility for ENG 100*
Note: *Graded only*
Transfer acceptability: *CSU; UC*
An introduction to science fiction - its major authors and stories, themes, trends, and cultural impact.

ENG 270 Popular Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Note: *Graded only; may be taken 2 times*
Transfer acceptability: *CSU; UC – max credit, one course*
An introduction to one genre of popular literature such as science fiction, fantasy, detective fiction, war fiction, humor, or western literature using short stories and novels, and how these works are affected by the expectations, and conventions of the genre in which the author is writing.

ENG 280 Women and Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Examines from a multicultural perspective women's relationship to literature. Examines what it means to be a "woman" writer, exploring historical and cultural conditions that have shaped women's relationship to literature. Explores gender stereotypes in literature by and about women and analyzes the ways in which women writers engage with, resist, and/or subvert dominant ideas about gender in literature.

ENG 290 Comic Books as Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
An analysis of the comic book in terms of its unique poetics (the complicated interplay of word and image); the themes that are suggested in various works; the history and development of the form and its subgenres; and the expectations of comic book readers. Examines the influence of history, culture, and economics on comic book artists and writers. Explores definitions of "literature," how these definitions apply to comic books, and the tensions that arise from such applications.

ENG 295 Directed Study in Literature (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Eligibility for ENG 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*

Independent study for students who have demonstrated skills and/or proficiencies in English subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

English as a Second Language (ESL)

Contact the English as a Second Language Department for further information.
(760) 744-1150, ext. 2272
Office: A-17

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of 'C' or better.

Students whose first language is not English are advised to participate in an English placement process given by the English as a Second Language Department before enrolling in any English or English as a Second Language class. The assessment process will determine which level is appropriate for the student.

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

The following courses are for students whose first language is not English.

ESL 1 Beginning ESL I (1, 1.5, 2, 2.5, 3, 3.5, 4)
3, 4½, 6, 7½, 9, 10½, or 12 hours lecture/laboratory
Prerequisite: Eligibility established through the English as a Second Language placement process
Non-degree Applicable
Listening, speaking, reading, and writing skills for non native speakers of English at the low-beginning level.

ESL 2 Beginning ESL II (1, 1.5, 2, 2.5, 3, 3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours lecture/laboratory
Prerequisite: A minimum grade of 'C' in ESL 1 or eligibility determined through the English as a Second Language placement process
Non-degree Applicable
Listening, speaking, reading, and writing skills for non-native speakers of English at the mid-beginning level.

ESL 3 Beginning ESL III (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours lecture/laboratory
Prerequisite: A minimum grade of 'C' in ESL 2 or eligibility determined through the English as a Second Language placement proces
Non-degree Applicable
Listening, speaking, reading, and writing skills for non-native speakers of English at the high-beginning level.

ESL 9 English Pronunciation I (3)
3 hours lecture
Non-degree Applicable
Development of students' ability to identify and replicate English intonation, stress patterns, and certain common word combinations as they are pronounced in informal speech.

ESL 10 English Pronunciation II (3)
3 hours lecture
Non-degree Applicable
Identifies standard spoken American English intonation, stress and rhythm sounds. Provides practice to retrain the speech organs to produce those sounds. Emphasis on self correction of speech problems.

ESL 15 Grammar Skills for ESL Writers I (3)
3 hours lecture
Non-degree Applicable
Instruction in editing of written material by applying conventions of standard written English.

ESL 16 Grammar Skills for ESL Writers II (3)
3 hours lecture
Non-degree Applicable
Instruction in editing of written material by applying conventions of standard written English.

ESL 20 Academic Speaking and Listening (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in ESL 3 or eligibility determined through the English as a Second Language placement process*
Non-degree Applicable
Develops speaking and listening skills necessary for non-native speakers of English to be successful in the college environment. This class emphasizes linguistic and interpersonal skills in order for participation in discussions and performance of tasks in personal, academic, and formal or informal situations. Vocabulary, conversation strategies, presentation techniques, and strategies for notetaking and listening for main ideas and details are introduced within interesting and meaningful contexts.

ESL 34 Intermediate ESL I (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ESL 3 or eligibility determined through the English as a Second Language placement process*
Non-degree Applicable
Listening, speaking, reading, and writing skills for non native speakers of English at the low-intermediate level.

ESL 35 Intermediate ESL II (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in ESL 34 or eligibility determined through the English as a Second Language placement process*
Non-degree Applicable
Listening, speaking, reading, and writing skills for non native speakers of English at the mid-intermediate level.

ESL 36 Intermediate ESL III (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours laboratory
Prerequisite: *A minimum grade of 'C' in ESL 35 or eligibility determined through the English as a Second Language placement process*
Non-degree Applicable
Listening, speaking, reading, and writing skills for non native speakers of English at the high-intermediate level.

ESL 40 Introduction to Academic Reading and Writing (2)
2 hours lecture
Non-degree Applicable
A multilevel reading and writing course designed to help students improve their reading and writing skills. This course will provide a review of grammar, paragraph organization and development, and the conventions of academic writing. It will also address reading strategies such as using textual clues to aid comprehension, finding a balance between speed and accuracy, and vocabulary building.

ESL 97 English as a Second Language Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in English as a Second Language. See Class Schedule for specific topic covered. Course title will designate subject covered.

ESL 98.1 Vocational ESL I (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours laboratory
Beginning level English as a Second Language instruction in preparation for a vocational program. Self-paced modules provide an introduction to complementary language and academic skills necessary to succeed in a vocational program. Includes reading, writing, speaking, listening, and basic computer literacy skills.

ESL 98.2 Vocational ESL II (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours laboratory
Prerequisite: *A minimum grade of 'C' in ESL 98.1*
Intermediate English as a Second Language instruction in preparation for a vocational program. Continued self-paced intermediate instruction in complementary language and academic skills necessary to succeed in a vocational program. Includes reading, writing, speaking, listening, and intermediate computer literacy skills.

ESL 98.3 Vocational ESL III (1,1.5,2,2.5,3,3.5,4)
3, 4½, 6, 7½, 9, 10½, or 12 hours laboratory
Prerequisite: *A minimum grade of 'C' in ESL 98.2*
Advanced English as a Second Language instruction in preparation for a vocational program. Provides advanced complementary instruction in language and academic skills necessary to succeed in a vocational program through self-paced modules. Includes reading, writing, speaking, listening, and advanced computer literacy skills. For students who are completing their Vocational ESL program of studies.

ESL 101 Written Communication I (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in ESL 36 or eligibility determined through the English as a Second Language placement process*
Transfer acceptability: *CSU*
A review of word level and sentence level grammar, paragraph organization, paragraph development, development of the five paragraph essay and appropriate vocabulary for academic writing. Emphasizes writing as a process; develops analytical skills and critical thinking.

ESL 102 Written Communication II (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in ESL 101 or eligibility determined through the English as a Second Language placement process*
Transfer acceptability: *CSU; UC – ESL 102 and 103 combined: maximum credit, 8 units*
A review of sentence level grammar, paragraph organization, development of the five paragraph essay, and appropriate vocabulary for academic writing. Introduces writing as a response to published materials which cultivate the affective and intellectual abilities of the students. Emphasizes writing as a process; develops analytical skills and critical thinking.

ESL 103 Written Communication III (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in ESL 102 or eligibility determined through the English as a Second Language placement process*
Transfer acceptability: *CSU; UC – ESL 102 and 103 combined: maximum credit, 8 units*
Expansion of the basic five paragraph essay through the development of detailed, specific, and appropriate support. Further develops the students' abilities to read, analyze, interpret, and respond both objectively and subjectively to published materials that are linguistically, conceptually, and culturally challenging. Emphasizes writing as a process.

ESL 130 Academic Reading for ESL I (3)
3 hours lecture
Transfer acceptability: *CSU*
An introduction to reading skills necessary for understanding academic and other writing. Emphasis is on vocabulary development, critical thinking skills, paraphrasing, and summarizing. Additional focus is on the improvement of oral reporting.

ESL 131 Academic Reading for ESL II (3)
3 hours lecture
Transfer acceptability: *CSU*
Reading skills for understanding the complex nature of the language and concepts presented in college textbooks. Emphasis is on the organization of textbook writing, the signals which help the student to analyze and comprehend each part of a chapter, and the patterns of writing which students must recognize such as cause and effect, comparison and contrast, exemplification and process which are most common in college textbook material.

Entertainment Technology (ENTT)

Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: D-16

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Entertainment Technology

PROGRAMS OF STUDY

Entertainment Technology

This program will prepare students for employment in the fields of entertainment technologies at entry level. The areas of potential employment include theme parks, casinos, cruise ships, concerts, gallery display and design, event installations, live event technical support, and theatre venues providing non-theatre related events. Basic rigging and production safety will be a component of this program.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CSNT 110	Hardware and O.S. Fundamentals	3
ENTT 100	Introduction to Entertainment Technology	1
ENTT/RTV 103	Introduction to Audio-Visual Systems	3
ENTT/TA 105	Introduction to Technical Theatre	2.5
ENTT/TA 107	Lighting for Stage and Television	3
ENTT/TA 112	Entertainment Audio Production	3
ENTT/RTV 130	Radio Production	3
TA 197D	Stage Crew Workshop	2
TA 297 or	Experimental Topics in Theatre	
ENTT/RTV 294B	Television Internships/Production	1
Electives (Select 11 units)		
ENTT/RTV 294B	Television Internships/Production	1-3
FASH 126	Fashion Show Presentation	1
FASH 135	Basic Sewing Construction	3
FASH 139	Pattern Making/Fashion Design	3
RTV 100	Introduction to Radio/TV	3
RTV 120/ ENTT 120	Digital Television Production	3
RTV 230	Digital Audio with Pro Tools	3
TA 106	Elementary Stage Costume	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and TV	3
TA 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	.5
TA 170	Computer Aided Drafting for Theatre	3
TA 297	Experimental Topics in Theatre	1-3
WELD 100	Welding I	3
TOTAL UNITS		**32.5**

Entertainment Technology Certificate of Achievement also listed in Radio and Television and in Theatre Arts.

COURSE OFFERINGS

ENTT 100 Introduction to Entertainment Technology (1)
1 hour lecture
Transfer acceptability: *CSU*
An introduction to the live entertainment technology industry, including: working methods, processes, equipment and facilities for theatre, opera, dance, concert productions, theme parks, themed retail, cruise ship venues, and corporate special events. Related current events and career opportunities will be discussed. Attendance at several of the type of events listed above is required.

ENTT 103 Introduction to Audio-Visual Systems (3)
6 hours lecture/laboratory
Note: *Cross listed as RTV 103*
Transfer acceptability: *CSU*
Provides a theoretical and practical foundation in temporary and permanent video and audio systems technology for entertainment applications such as theatre, corporate events, hotel/ballroom A/V work, theme parks, museums and other related applications.

ENTT 105 Introduction to Technical Theatre (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as TA 105*
Transfer acceptability: *CSU; UC*
A general survey of technical theatre including stagecraft, lighting, sound design, costuming, make up, production organization, business management, and promotion. Course will include practical skills in all areas.

ENTT 107 Lighting for Stage and Television (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT 105/TA 105*
Note: *Cross listed as TA 107*
Transfer acceptability: *CSU; UC*
Techniques, theories, and procedures necessary to develop lighting and lighting effects integrated into film, television, and theatre productions. Practical experience in college productions.

ENTT 108 Stagecraft and Scene Design for Theatre and Television (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105*
Note: *Cross listed as TA 108*
Transfer acceptability: *CSU; UC*
Technical practices and organization of production for theatre, film, and television. Practice in drafting, designing, and construction of scenery for college productions.

ENTT 112 Entertainment Audio Production (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as TA 112*
Transfer acceptability: *CSU*
Audio applications and technology for entertainment based uses. To understand set up, operation, troubleshooting techniques with audio signal chain.

ENTT 120 Digital Television Production (3)
6 hours lecture/laboratory
Note: *Cross listed as RTV 120*
Transfer acceptability: *CSU*
The terminology, practices, and aesthetic considerations of visual and sound productions. Principles of producing, staging, shot composition, directing, blocking, graphics, studio techniques, and lighting for television.

ENTT 130 Radio Production (3)
6 hours lecture/laboratory
Note: *Cross listed as RTV 130*
Transfer acceptability: *CSU*
Techniques and theories of audio production in the preparation of radio programs. Use of audio mixing and recording equipment, editing and dubbing, microphone techniques and program construction. Several programs produced by the student will be broadcast on radio station KKSM.

ENTT 294B Television Internships/Production (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *Cross listed as RTV 294B; May be taken 4 times*
Transfer acceptability: *CSU*
Work on advanced television production including individual research, work on college produced programs, or internships at local broadcast stations, cable companies, and other communications facilities.

Family and Consumer Sciences (FCS)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: ST-49
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Family and Consumer Sciences - General

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Family and Consumer Sciences - General

PROGRAM OF STUDY

Family and Consumer Sciences-General

For students desiring to improve their skills as home managers or to enter careers in social services or related fields requiring knowledge of family management skills.

Students should be aware that not all Family and Consumer Sciences, Fashion, and Interior Design courses are offered every semester. See Class Schedule or Department Chairperson for additional information.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
FCS 101	Life Management	3
FCS 105	Family Dynamics	3
FCS/BUS 136	Personal Finance	3
FCS/HE 165	Fundamentals of Nutrition	3
FASH 110	Textiles	3
FASH 135	Basic Sewing Construction	3
ID 100	Interior Design	3
CHDV 100 or PSYC 110	Child Growth and Development / Developmental Psychology – Child Through Adult	3
TOTAL UNITS		**24**

Recommended Electives: It is recommended that candidates for the certificate and transfer students take one or more of the following courses: FCS 197, FASH 100, 105, 136; ID 105, 115; ART 120; CHEM 100; CHDV 145; CE 100; PSYC 100; SOC 100; SPCH 100

Students planning to transfer to San Diego State University should seek counseling from the director of the Family and Consumer Sciences program.

COURSE OFFERINGS

FCS 101 Life Management (3)
3 hours lecture
Transfer acceptability: *CSU*
Principles of managing human systems through the techniques of goal setting, decision making, communication, and time and energy structuring. Emphasizes problem solving skills transferable to management of education, residence, or work environments.

FCS 105 Family Dynamics (3)
3 hours lecture
Transfer acceptability: *CSU*
Explores the elements which lead to successful adjustment in family living. Dynamics of love, communication, and sexuality are examined as part of the developmental process of family life.

FCS 110 Microbiology and Foods (3)
2 hours lecture-2 hours lecture/laboratory
Note: *Cross listed as MICR 110*
Transfer acceptability: *CSU*
Introduction to the principles of microbiology with an emphasis on foodborne pathogens. Students will explore biological factors and controls relating to reproduction of microorganisms and the effects on public health. This course does not meet microbiology requirement for pre-health students.

FCS 136 Personal Finance (3)
3 hours lecture
Note: *Cross listed as BUS 136*
Transfer acceptability: *CSU*
A study of the effective management of personal and family resources. Budgeting, buying of goods and services, banking, credit, taxation, investing, insurance, home ownership, estate planning, and consumer protection.

FCS 150 Food and Culture (3)
3 hours lecture
Transfer acceptability: *CSU*
Food is an expression of cultural diversity, and traditional foods reflect geographic area and culture. Regional, ethnic, cultural, religious, historical, and social influences on food patterns are explored. Influence of socio-economic class, gender, and age on diet, health, and disease are also discussed.

FCS 165 Fundamentals of Nutrition (3)
3 hours lecture
Note: *Cross listed as HE 165*
Transfer acceptability: *CSU; UC – FCS 165, FCS 185, BIOL 185, HE 165 combined: maximum credit, one course*
The study of how food nourishes the body. Investigation of diet fads and fallacies, eating for fitness, and planning meals for optimum health throughout the life cycle.

FCS 170 Nutrition: Eating Disorders and Obesity (3)
3 hours lecture
Transfer acceptability: CSU
Review of etiology, incidence, socio-economic influences, and treatments. Interrelationships of genetics and environment (diet, exercise, and behavior) on weight management. Includes vocational information for working with the obese or eating-disordered.

FCS 185 Science of Human Nutrition (3)
3 hours lecture
Note: *Cross listed as BIOL 185*
Transfer acceptability: *CSU; UC – FCS 165, FCS 185, BIOL 185, HE 165 combined: maximum credit, one course*
Science of food, nutrients, and other substances therein; processes by which the organism ingests, digests, absorbs, transports, utilizes, and excretes food substances. Emphasis on biological, chemical, and physiological implications to human nutrition.

FCS 197 Family and Consumer Sciences Workshop (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Materials relative to the field of Family and Consumer Sciences.

Fashion (FASH)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: ST-49
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Fashion: Buying and Management
- Fashion Design/Technical
- Fashion Merchandising

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Fashion: Buying and Management

PROGRAMS OF STUDY

Fashion: Buying and Management

A program designed to prepare future personnel for employment in a retail management position with an emphasis in fashion retailing.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT*

Program Requirements		Units
FASH 100	Fashion Industry	3
FASH 115	Visual Merchandising I	3.5
FASH 119	Fashion Buying/Management I	3
FASH 120	Fashion Buying/Management II	3
FASH 175	Analysis, Evaluation, and Comparison of Ready-to-Wear	3
FASH 178	Fashion Career Portfolio	2
FASH 195	Field Studies in Fashion	2
FASH 197A	Fashion Merchandising Workshop	0.5 - 3
BUS 125	Business English	3
BUS 145/ FASH 125	Retailing/Promotion	3
CSIT 120/ R CSIS 120	Computer Applications	3
CE 150	Cooperative Education Internship	2-3
TOTAL UNITS		**31 - 34.5**

*Fashion: Buying and Management A.A. Degree Major or Certificate of Achievement pending approval by the California Community Colleges Chancellor's Office at the time of catalog production.

Fashion Design/Technical

Courses required for employment in the fashion industry; specifically in pattern making, sample work, fashion design, and illustration.

Students should be aware that not all Fashion courses are offered every semester. See Class Schedule or Department Chairperson for additional information.

A.A. DEGREE MAJOR

Program Requirements		Units
FASH 100	Fashion Industry	3
FASH 105	Fashion Analysis/Clothing Selection	3
FASH 110	Textiles	3
FASH 130	History of Fashion/Costume	3
FASH 135	Basic Sewing Construction	3
FASH 136	Advanced Sewing Construction	3
FASH 137 or FASH 149	Tailoring Fine Dressmaking	3
FASH 139	Pattern Making/Fashion Design	3
FASH 141	Adv Patternmaking/Fashion Design	3
FASH 145	Fashion Illustration/Presentation	4
FASH 146	Computer Aided Design (CAD) for Fashion	3
FASH 148	Digital Design for Fashion	3
FASH 165	Sewing Laboratory	1
FASH 166	Tailoring Laboratory	.5
FASH 167	Pattern-Making Laboratory	.5
FASH 195	Field Studies in Fashion	2
CE 150	Coperative Education Internship	2-3

Electives (Select one course)		
FASH 93	Specification Packets/Technical Design	3
FASH 125/ BUS 145	Retailing/Promotion	3
FASH 132	Costume and Culture	3
FASH 147	Advanced Computer Aided Design (CAD) for Fashion	3
FASH 170	Introduction to Fabric Design/Painting	3
FASH 178	Fashion Career Portfolio	2
TOTAL UNITS		**48 - 50**

Fashion Merchandising

The Fashion Merchandising A.A. degree program provides students with an option for a career or the requisite foundation for transfer to a four-year college or university. Careers might include assistant buyer, assistant department manager, small store owner, visual merchandiser, advertising consultant, fashion coordinator, promotion coordinator, sales associate, or manufacturer's sales representative.

Students should be aware that not all Fashion courses are offered every semester. See Class Schedule or Department Chairperson for additional information.

A.A. DEGREE MAJOR

Program Requirements		**Units**
FASH 100	Fashion Industry	3
FASH 105	Fashion Analysis/Clothing Selection	3
FASH 110	Textiles	3
FASH 115	Visual Merchandising I	3.5
FASH 120	Fashion Buying/Management II	3
FASH 125/ BUS 145	Retailing/Promotion	3
FASH 126	Fashion Show Promotion	1
FASH 130	History of Fashion/Costume	3
FASH 148	Digital Design for Fashion	3
FASH 175	Analysis, Evaluation, and Comparison of Ready-to-Wear	3
FASH 195	Field Studies in Fashion	2
CE 150	Internship	2-3
TOTAL UNITS		**32.5 - 33.5**

Recommended Electives: FASH 116, 132, 155; BUS 155

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

FASH 90 Design Collection (1)
2 hours lecture/laboratory
Recommended preparation: *At least one of the following courses: FASH 135, 136, 139, 145*
Note: *May be taken 3 times*
Lab course for fashion show line designers in any clothing category of women's, men's, teen's, and children's wear.

FASH 93 Specification Packets/Technical Design (3)
1½ hours lecture- 4½ hours laboratory
Note: *May be taken 2 times*
Spec and record garment measurements. Draw specification flats manually and digitally using Adobe Illustrator.

FASH 100 Fashion Industry (3)
3 hours lecture
Transfer acceptability: *CSU*
A study of the background and technology of the clothing industry. Includes contemporary problems of production and distribution; emphasis is on career options in the fashion industry.

FASH 105 Fashion Analysis and Clothing Selection (3)
3 hours lecture
Transfer acceptability: *CSU*
Examines fashion for professional and personal need as it relates to culture, wardrobe planning, and coordination.

FASH 110 Textiles (3)
3 hours lecture-1 hour laboratory
Transfer acceptability: *CSU*
Fibers, yarn, fabric construction, and finishes as related to selection, use, and care of textiles.

FASH 115 Visual Merchandising I (3.5)
3 hours lecture-1½ hours laboratory
Transfer acceptability: *CSU*
Designed to acquaint the student with basic techniques of effective retail store presentations including window and interior displays. Course activities include constructing and installing visual displays using the principles of design and designing store environments, utilizing fixtures, lighting, and other display materials.

FASH 116 Visual Merchandising II (3.5)
3 hours lecture-1½ hours laboratory
Transfer acceptability: *CSU*
Advanced visual design and application. Hands on experience in merchandise presentation and display; basic drafting techniques and drafting tools related to store planning and visual merchandising.

FASH 119 Fashion Buying/Management I (3)
3 hours lecture
A study of management opportunities within the field of fashion retailing, at both the corporate and store level, with an emphasis on the role of store department management. The role and responsibilities of each management position will be fully explored, including fiscal responsibilities of each and the math skills necessary to accomplish goals. Topics covered include basic management skills, inventory control, labor laws governing the fashion retail industry, recruitment and interviewing, employee relations, including coaching and counseling, math skills pertinent to each position, and merchandise management and control.

FASH 120 Fashion Buying/Management II (3)
3 hours lecture
Transfer acceptability: *CSU*
Principles of fashion buying utilizing practical applications and case studies. Topics covered include merchandise planning and selection, resource relations, legal trade regulations, pricing, and merchandise management and control.

FASH 125 Retailing/Promotion (3)
3 hours lecture
Note: *Cross listed as BUS 145*
Transfer acceptability: *CSU*
Principles and techniques of retailing, promotion, and advertising pertinent to retail policies and procedures. Includes psychological aspect of retailing. Working foundation for those looking forward to employment in this area.

FASH 126 Fashion Show Presentation (1)
2 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Applied study and practical application of fashion show and special event production and promotional skills. Strategies and techniques studied include organizing, advertising, staging, timing, and coordinating models and their clothing and accessories. Produce the Fashion Merchandising/Fashion Design program's annual fashion show.

FASH 130 History of Fashion/Costume (3)
3 hours lecture
Transfer acceptability: *CSU*
Styles of dress from the Paleolithic period to the present as depicted in art forms and other media. Focuses on Western European costume.

FASH 131 Elementary Stage Costume and Make Up (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as TA 131*
Transfer acceptability: *CSU*
Basic theories, techniques, and procedures of costume production and make-up application for stage, film, and television. Practical training in college productions.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

FASH 132 Costume and Culture (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Patterns of dress and human adornment of three cultures: African, Asian/Pacific Islanders and the Americas. Socio-cultural developments in dress. Clothing images and meaning in a contemporary multicultural American society.

FASH 135 Basic Sewing Construction (3)
6 hours lecture/laboratory
Corequisite: *FASH 165*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Quality garments will be produced utilizing machine and manual industry sewing and pattern techniques.

FASH 136 Advanced Sewing Construction (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in FASH 135*
Corequisite: *FASH 165*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Sewing construction techniques beyond basic level, with increased difficulty in pattern assembly.

FASH 137 Tailoring (3)
6 hours lecture/laboratory
Corequisite: *FASH 166*
Recommended preparation: *FASH 136*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Clothing principles emphasizing techniques in handling difficult fabrics. Principles of tailoring; planning and construction of suits and coats.

FASH 139 Pattern Making/Fashion Design (3)
6 hours lecture/laboratory
Corequisite: *FASH 167*
Recommended preparation: *FASH 135*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Pattern making through the flat pattern design method. Attention is given to design analysis and interpretation of design; application of design method in the development, presentation, and construction of original garments.

FASH 141 Advanced Pattern Making/Fashion Design (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in FASH 139*
Corequisite: *FASH 167*
Recommended preparation: *FASH 135*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Advanced design skills for the fashion industry. Examination of one method of pattern development: draping. Creation of patterns to drape and fit on a dressmaker's form.

FASH 145 Fashion Illustration and Presentation (4)
3 hours lecture - 3 hour laboratory
Transfer acceptability: *CSU*
Fundamentals in drawing of fashion figures and in illustration of fashion garments. Development of individual skills and style in graphic presentation.

FASH 146 Computer Aided Design (CAD) for Fashion (3)
6 hours lecture/laboratory
Corequisite: *FASH 168*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
An introduction to computer aided pattern making for fashion using CAD technology. Hands-on experience with CAD technology to include the following operations: preparing and editing patterns; storage and retrieval of patterns, production of fashion industry patterns.

FASH 147 Advanced Computer Aided Design (CAD) for Fashion (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in FASH 146*
Corequisite: *FASH 168*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced theory and hands-on operation of CAD systems for fashion pattern making including pattern making blocks, grading, and marker making. Emphasis is placed on productivity and manufacturability for the fashion design industry.

FASH 148 Digital Design for Fashion (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Design and illustrate fashion sketches, storyboards, and patterns using Adobe Illustrator and Adobe Photoshop. Development of individual skills and style in graphic presentations.

FASH 149 Fine Dressmaking (3)
1½ hours lecture- 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in FASH 136*
Corequisite: *FASH 165*
Note: *May be taken 2 times*
A study of techniques used to develop fine dressmaking skills including construction used in high-end ready to wear and couture fashions.

FASH 155 World of Fashion (2,3)
4 or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU*
Extended field studies in textiles, design, manufacturing, forecasting, and retail practices as they apply to the national and international fashion industry. Emphasis upon field observation and examination of the fashion trends as they interrelate with the social, political, psychological, economic, and historical influences to create the fashion ambience. Geographical locations may vary.

FASH 165 Sewing Laboratory (1)
3 hours laboratory
Corequisite: *FASH 135 or 136*
Note: *Pass/No Pass grading only; may be taken 4 times*
Transfer acceptability: *CSU*
Enhancement of sewing skills by supervised practice and active participatory experience in individual study. Content to be determined by the need of the student in agreement and under observation and direction of the instructor.

FASH 166 Tailoring Laboratory (.5)
1½ hours laboratory
Corequisite: *FASH 137*
Recommended Preparation: *FASH 135*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Enhancement of tailoring skills by supervised practice and active participatory experience in individual study. Content to be determined by the need of the student in agreement and under observation and direction of the instructor.

FASH 167 Pattern-Making Laboratory (.5)
1½ hours laboratory
Corequisite: *FASH 139 or 141*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Enhancement of pattern-making skills by supervised practice and active participatory experience in individual study. The specific content to be determined by the need of the student in agreement and under observation and direction of the instructor.

FASH 168 CAD Laboratory (.5)
1½ hours laboratory
Corequisite: *FASH 146 or 147*
Note: *May be taken 4 times*

Transfer acceptability: *CSU*
Enhancement of CAD (Digital Design for Fashion) skills by supervised practice and active participatory experience in individual study. Specific content to be determined by the need of the student in agreement and under observation and direction of the instructor.

FASH 170 Introduction to Fabric Design/Painting (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
Traditional and contemporary methods in the application of fabric dyes and paints using fundamental design principles for textiles and clothing.

FASH 175 Analysis, Evaluation, and Comparison of Ready-to-Wear (3)
3 hours lecture
Transfer acceptability*: CSU*
Analysis of the quality of materials, design, and construction in ready-to-wear garments and accessories; comparison of processes involved in manufacturing; concepts of sizing; principles of fit; and aids in buying and selling.

FASH 178 Fashion Career Portfolio (2)
2 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Creation of a professional portfolio for careers in the fashion industry.

FASH 195 Field Studies in Fashion (2)
4 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Fashion industry on site: process of designing, manufacturing, marketing, and merchandising of fashion apparel and related accessories.

FASH 197A Fashion Merchandising Workshop (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Covers areas of the fashion merchandising industry which are rapidly changing or require current short term specific training.

FASH 197B Fashion Manufacturing Workshop (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Covers areas of the fashion manufacturing industry which are rapidly changing or require current short term specific training.

FASH 197C Fashion Design Workshop (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Covers areas of the fashion design industry which are rapidly changing or require current short term specific training.

FASH 295 Directed Study in Fashion (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in Fashion subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Fire Technology (FIRE)

Contact Public Safety Programs for further information.
(760) 744-1150, ext. 1722
Office: PSTC, 182 Santar Place, San Marcos

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Fire Technology - Emergency Management
- Fire Technology - General

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Fire Technology - Emergency Management
- Fire Technology - General

PROGRAMS OF STUDY

Fire Technology - Emergency Management

Prepares student for career in Emergency Management.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
FIRE 100	Fire Protection Organization	3
FIRE 115	Hazardous Materials I	3
FIRE 120	Building Construction for Fire Protection	3
FIRE 131	Emergency Preparedness	3
FIRE 132	Fundamentals of Emergency Management	3
FIRE 133	Disaster Mitigation	3
Electives	**(Select 12 units)**	
FIRE 51	Fire Academy Preparation	2
FIRE 71	Trench Rescue	.5
FIRE 72	Swiftwater Rescue	.5
FIRE 98	Fire Service Skills	.5-5
FIRE 105	Fire Hydraulics	3
FIRE 118	Fire Prevention Technology	4
FIRE 125	Fire Apparatus and Equipment	3
FIRE 130	Fire Protection Equipment and Systems	3
FIRE 145	Fire Fighting Tactics and Strategy	3
FIRE 151	Fire Fighter I Academy	18
FIRE 152	Driver Operator Academy	4.5
FIRE 160	Wildland Fire Control I	3
FIRE 165	Fundamentals of Fire Protection Chemistry	3
FIRE 168	Volunteer Fire Fighter Academy	4
FIRE 175	Fire Command 1A	2.5
FIRE 176	Fire Command 1B	2.5
FIRE 180	Fire Prevention 1A	2.5
FIRE 181	Fire Prevention 1B	2.5
FIRE 185	Fire Management I	2.5
FIRE 190	Fire Investigation 1A	2.5
FIRE 193	Fire Instructor 1A	2.5
FIRE 194	Fire Instructor 1B	2.5
FIRE 197A	Fire Technology General Topics	.5-5
FIRE 197B	Fire Technology Command Topics	.5-5
FIRE 197C	Fire Technology Field Topics	.5-5
TOTAL UNITS		**30**

Fire Technology - General

Prepares students for a career in fire suppression, fire prevention and/or fire protection.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
FIRE 100	Fire Protection Organization	3
FIRE 118	Fire Prevention Technology	4
FIRE 120	Building Construction for Fire Protection	3
FIRE 130	Fire Protection Equipment and Systems	3
FIRE 165	Fundamentals of Fire Protection Chemistry	3
Elective Courses (Select 15 units)		
FIRE 51	Fire Academy Preparation	2
FIRE 71	Trench Rescue	.5
FIRE 72	Swiftwater Rescue	.5
FIRE 98	Fire Service Skills	.5-5
FIRE 105	Fire Hydraulics	3
FIRE 115	Hazardous Materials I	3
FIRE 125	Fire Apparatus and Equipment	3
FIRE 131	Emergency Preparedness	3
FIRE 132	Fundamentals of Emergency Management	3
FIRE 133	Disaster Mitigation	3
FIRE 142	Fire Ethics	3
FIRE 145	Fire Fighting Tactics and Strategy	3
FIRE 151	Fire Fighter I Academy	18
FIRE 152	Driver Operator Academy	4.5
FIRE 160	Wildland Fire Control I	3
FIRE 168	Volunteer Fire Fighter Academy	4
FIRE 175	Fire Command 1A	2.5
FIRE 176	Fire Command 1B	2.5
FIRE 180	Fire Prevention 1A	2.5
FIRE 181	Fire Prevention 1B	2.5
FIRE 185	Fire Management I	2.5
FIRE 190	Fire Investigation 1A	2.5
FIRE 193	Fire Instructor 1A	2.5
FIRE 194	Fire Instructor 1B	2.5
FIRE 197A	Fire Technology General Topics	.5-5
FIRE 197B	Fire Technology Command Topics	.5-5
FIRE 197C	Fire Technology Field Topics	.5-5
EME 106	Emergency Medical Tech Basic (Lecture)	6
CE 100	Cooperative Education	1-4
TOTAL UNITS		**31**

COURSE OFFERINGS

Due to safety concerns, as well as minimum requirements by regulatory agencies, potential students should be aware that some courses may require participants to demonstrate physically demanding skills, along with both verbal and nonverbal communication skills.

Courses numbered under 100 are not intended for transfer credit.

FIRE 51 Fire Academy Preparation (2)
4 hours lecture/laboratory
Note: *May not be taken as an audit. May be taken 4 times*
This course prepares individuals for the demanding requirements of the Fire Academy. It will also prepare students for the Physical Ability test that is required to pass the North County Regional Fire Test. It breaks the test down into components, so that the student can more skillfully pass the exam. There will be time spent on application preparation and interview skills.

FIRE 71 Trench Rescue (.5)
1½ hours laboratory
Note: *Pass/No Pass grading only; may not be taken as an audit. May be taken 4 times*
Comprehensive instruction with extensive hands-on application of the techniques necessary to safely effect a rescue from an excavation or trenching cave-in. Topics include: critical considerations while responding to trenching emergencies; establishing and operating the Incident Command System; evaluation of cave-in scenes; specialized tool usage; shoring techniques; below grade safety procedures; patient packaging; and patient removal techniques. Upon successful completion of the course, students will receive a California State Fire Marshal certificate.

FIRE 72 Swiftwater Rescue (.5)
1½ hours laboratory
Note: *Pass/No Pass grading only; may not be taken as an audit. May be taken 4 times*
This course is intended for the training of fire service personnel in water rescue techniques. Topics include: Swiftwater rescue, submerged vehicles, drownings, use of engine/truck company equipment for water rescue, use of rafts and boats, and underwater search and recovery. Upon completion of the course, students will receive a California State Fire Marshal certificate.

FIRE 98 Fire Service Skills (.5,1,1.5,2,2.5,3,3.5,4,4.5, 5)
1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 hours lecture/laboratory
Note: *Pass/No Pass grading only; may not be taken as an audit. May be taken 4 times*
This course covers fire service basic topics in the classroom for review and manipulative training for skills maintenance. All subjects will have to do with the duties and responsibilities of the fire services, in order to maintain a state of readiness.

FIRE 100 Fire Protection Organization (3)
3 hours lecture
Transfer acceptability: *CSU*
Provides an introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FIRE 105 Fire Hydraulics (3)
3 hours lecture
Recommended preparation: *FIRE 100 and MATH 60*
Transfer acceptability: *CSU*
Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problems; underwriter's requirements for pumps.

FIRE 115 Hazardous Materials I (3)
3 hours lecture
Transfer acceptability: *CSU*
A review of basic chemistry; storage, handling, laws, standards, and fire fighting practices pertaining to hazardous materials.

FIRE 118 Fire Prevention Technology (4)
4 hours lecture
Transfer acceptability: *CSU*
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education system, Certified Firefighter I and Fire Inspector I. Meets requirements for CFSTES Fire Prevention IA and IB classes. Contains knowledge required for State Fire Training, Firefighter I Certification.

FIRE 120 Building Construction for Fire Protection (3)
3 hours lecture
Transfer acceptability: *CSU*
The study of the components of building construction that relate to fire/life safety. The development and evolution of building and fire codes will be studied in relationship to past fires/collapses in residential, commercial, and industrial occupancies.

FIRE 125 Fire Apparatus and Equipment (3)
3 hours lecture
Transfer acceptability: *CSU*
Driving laws, driving technique, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance.

FIRE 130 Fire Protection Equipment and Systems (3)
3 hours lecture
Transfer acceptability: *CSU*
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers.

FIRE 131 Emergency Preparedness (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FIRE 100*
Emergency preparedness related to natural and man-made disasters. Planning concepts and the planning process; awareness and education programs and strategies for the fire student, business, and industry.

FIRE 132 Fundamentals of Emergency Management (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FIRE 131*
Emergency management systems related to career opportunities, tasks, function and responsibilities of the emergency management program director; the role in mitigation, preparedness, response and recovery. History of the civil defense department post World War II and the current emergency management system.

FIRE 133 Disaster Mitigation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FIRE 131*
Knowledge and skills required to develop programs to reduce losses from future emergencies caused by natural and man-made disasters.

FIRE 142 Fire Ethics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FIRE 100*
Transfer acceptability: *CSU*
Fire ethics will be studied from the perspective of a professional firefighter. Students will examine and explore ethical and moral dilemmas that will confront Firefighters/EMS personnel throughout their career.

FIRE 145 Fire Fighting Tactics and Strategy (3)
3 hours lecture
Transfer acceptability: *CSU*
Review of fire chemistry, equipment, and manpower; basic fire fighting tactics and strategy; methods of attack; preplanning fire problems.

FIRE 151 Fire Fighter I Academy (18)
36 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in EME 106 or certification as an EMT 1, and admission to the Fire Fighter I Academy program*
Transfer acceptability: *CSU*
A 576 hour fire fighter academy course which will meet the requirements mandated by the California Office of State Fire Marshal for Certified Fire Fighter I training. Covers fire ground procedures, tactics, strategy, safety methods, fire dynamics, equipment usage and deployment, and subject material pertaining to the role of fire fighters within the fire service.

FIRE 152 Driver Operator Academy (4.5)
9 hours lecture/laboratory
Recommended preparation: *FIRE 100 and 151*
Transfer acceptability: *CSU*
Comprehensive instruction in all aspects of operating fire apparatus. This includes fire apparatus construction and maintenance; driving laws; safe driving practices; fire pump theory; fire pump service testing; hydraulic laws and formulas as applied to the fire service; developing effective fire streams; identification and use of the various hose, nozzles, and fittings used in the fire service; water supply; nationally recognized standards for fire apparatus and equipment.

FIRE 160 Wildland Fire Control I (3)
3 hours lecture
Transfer acceptability: *CSU*
Provides employed firefighters or fire service majors with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.

FIRE 165 Fundamentals of Fire Protection Chemistry (3)
3 hours lecture
Recommended preparation: *FIRE 100*
Transfer acceptability: *CSU*
Provides the student with fundamental information and knowledge of the physical and chemical characteristics of matter, fire, hazardous materials, and basic extinguishment theory.

FIRE 168 Volunteer Fire Fighter Academy (4)
8½ hours lecture/laboratory
Transfer acceptability: *CSU*
Basic fire fighting skills needed to begin a career in the fire service. Meets State Fire Marshal requirements.

FIRE 175 Fire Command 1A (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
Instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer, fire behavior, fireground resources, operations, and management.

FIRE 176 Fire Command 1B (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
A descriptive analysis in tactics and strategies and scene management principles for incidents involving hazardous materials. Emphasizes identification and hazard mitigation, decontamination, protective clothing, environmental concerns, and legal issues.

FIRE 180 Fire Prevention 1A (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
A broad, technical overview of fire prevention codes and ordinances, inspection practices, and key hazards.

FIRE 181 Fire Prevention 1B (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
The relationship of life safety codes and requirements to building construction principles and building occupancy classifications. The engineering solutions to various hazards, enforcing the solution, and public relations as affected by fire prevention in handling complaints.

FIRE 185 Fire Management I (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
Prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts and practices utilized, and includes discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines.

FIRE 190 Fire Investigation 1A (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
Providess the participants with an introduction and basic overview of fire scene investigation. The focus of the course is to provide information on fire scene indicators and to determin the fire's origin.

FIRE 193 Fire Instructor 1A (2.5)
2½ hours lecture
Transfer acceptability: *CSU*
The first of a two-course series. Topics include the Occupational Analysis, course outline, concepts of learning, levels of instruction, behavioral objectives, lesson plan development, psychology of learning, and instructor evaluation. Student teaching demonstrations are required of all.

FIRE 194 Fire Instructor 1B (2.5)
2½ hours lecture
Transfer acceptability: CSU
The second in a two-course series. Topics include preparing course outlines,

establishing levels of instruction, constructing behavioral objectives and lesson plans, developing instructional aids, fundamentals of testing and measurements, test planning, evaluation techniques and tools. Student teaching demonstrations are required of all.

FIRE 197A Fire Technology General Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Fire technology General. See Class Schedule for specific topic offered. Course title will designate subject covered.

FIRE 197B Fire Technology Command Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Fire Technology Command. See Class Schedule for specific topic offered. Course title will designate subject covered.

FIRE 197C Fire Technology Field Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Fire Technology Field. See Class Schedule for specific topic offered. Course title will designate subject covered.

Foreign Languages (FL)

See Arabic, Chinese, French, German, Italian, Japanese, Spanish, and Tagalog

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

FL 107A Elementary Luiseño IA (3)
3 hours lecture
Note: FL 107A +107B correspond to one year of high school foreign language
Note: *Cross listed as AIS 107A*
Transfer acceptability: *CSU*
This elementary level course is a study of the fundamentals of the Luiseño language, one of the four indigenous languages of San Diego County. This course will include a survey of Luiseño language phonology, morphology, syntax and grammar with special emphasis on culturally relevant terminology.

FL 107B Elementary Luiseño IB (3)
3 hour lecture
Recommended preparation: *FL/AIS 107A*
Note: *FL 107A +107B correspond to one year of high school foreign language*
Note: *Cross listed as AIS 107B*
Transfer acceptability: *CSU*
This elelmentary course is a continuation of AIS 107A and review of the phonology, morphology, syntax and grammar of the Luiseño language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

FL 108A Elementary Luiseño IIA (3)
3 hours lecture
Recommended preparation: *FL/AIS 107B*
Note: *FL 108A + 108B correspond to two years of high school foreign language.*
Note: *Cross listed as AIS 108A*
Transfer acceptability: *CSU; UC*
This course is an elementary review of grammar, composition, and continued oral practice.

FL 108B Elementary Luiseño IIB (3)
3 hours lecture
Recommended preparation: *FL/AIS 108A*
Note: *FL 108A + 108B correspond to two years of high school foreign language.*
Note: *Cross listed as AIS 108B*
Transfer acceptability: *CSU; UC*
This elementary course is a continued review of grammar, composition, and oral practice.

FL 161 Elementary Classical Nahuatl (3)
3 hours lecture
Note: *Cross listed as AIS 161/CS 161*
Transfer acceptability: *CSU; UC*
This is an introductory course on the Classical Nahuatl language of the Aztec Empire. Students will acquire a basic knowledge of Nahuatl morphology and syntax.

FL 194A Foreign Languages Experimental Topics (3)
3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Foreign Languages not covered by regular foreign language offerings. Course content to be determined in relation to community/student need (s). Course title will designate language and level covered. See Class Schedule for specific language and level being offered.

FL 194B Foreign Languages Experimental Topics (3)
3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Foreign Languages not covered by regular foreign language offerings. Course content to be determined in relation to community/student need(s). Course title will designate language and level covered. See Class Schedule for specific language and level being offered.

FL 194C Foreign Languages Experimental Topics (3)
3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Foreign Languages not covered by regular foreign language offerings. Course content to be determined in relation to community/student need (s). Course title will designate language and level covered. See Class Schedule for specific language and level being offered.

FL 197 Foreign Languages Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: May be taken 4 times
Transfer acceptability: CSU
Topics in Foreign Languages. See Class Schedule for specific topic offered. Course title will designate subject covered.

FL 207A Luiseno IIIA (3)
3 hours lecture
Recommended preparation: *FL/AIS 108B*
Note: *Cross listed as AIS 207A*
Transfer acceptability: *CSU; UC*
This intermediate level course is a study of the Luiseno language and culture(s), focusing on intermediate level culturally relevant authentic materials. Emphasis is on developing listening, oral, reading and writing skills in order to acquire proficiency in Luiseno.

FL 207B Luiseno IIIB (3)
3 hours lecture
Recommended preparation: *FL/AIS 207A*
Note: *Cross listed as AIS 207B*

Transfer acceptability: *CSU*
This intermediate level course is a continuation of the study of the language and culture of the Luiseno people emphasizing oral, listening, and reading skills.

French (FREN)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• French

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• French

French

This degree will provide required course work for students majoring in French. In addition, completing the course work will meet the foreign language competency requirements at many colleges and universities. Students may receive humanities credit on general education patterns for both the CSU and UC systems. It will also provide instruction for students seeking foreign language skills for personal development.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
FREN 101 or	French I	5
FREN 101A and	French IA	
FREN 101B	French IB	3,3
FREN 102 or	French II	5
FREN 102A and	French IIA	
FREN 102B	French IIB	3,3
FREN 201	French III	5
FREN 202	French IV	5
TOTAL UNITS		**20 - 22**

Recommended Electives: FREN 140, 215

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

FREN 101 French I (5)
5 hours lecture-1 hour laboratory
Transfer acceptability: *CSU; UC*
This course is the first semester of French. This elementary level course is a study of the French language and French-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in French.

FREN 101A French IA (3)
3 hours lecture
Note: *Covers the first half of FREN 101; not open to students with credit for FREN 101*
Transfer acceptability: *CSU; UC*
French 101A is equivalent to the first half of French 101. This elementary level course is a study of the French language and French-speaking cultures, with emphasis on the development of communicative skills and basic structures. This beginning-level course is for students with no previous coursework in French.

FREN 101B French IB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FREN 101A or one year of high school French*
Note: *Covers the second half of FREN 101; not open to students with credit for FREN 101*
Transfer acceptability: *CSU; UC*
French 101B is equivalent to the second half of French 101, and is a continuation of French 101A. This elementary level course is a study of the French language and French-speaking cultures, with emphasis on the development of communicative skills and basic structures.

FREN 102 French II (5)
5 hours lecture-1 hour laboratory
Prerequisite: *A minimum grade of 'C' in FREN 101 or 101B or two years of high school French*
Transfer acceptability: *CSU; UC*
This course is the second semester of French. This elementary level course is a study of the French language and French-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

FREN 102A French IIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FREN 101 or 101B or two years of high school French*
Note: *Covers the first half of FREN 102; not open to students with credit for FREN 102*
Transfer acceptability: *CSU; UC*
French 102A is equivalent to the first half of French 102. This elementary level course is a study of the French language and French-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

FREN 102B French IIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FREN 102A or two years of high school French*
Note: *Covers the second half of FREN 102; not open to students with credit for FREN 102*
Transfer acceptability: *CSU; UC*
French 102B is equivalent to the second half of French 102, and is a continuation of French 102A. This elementary level course is a study of the French language and French-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

FREN 140 Basic French Pronunciation (1)
1 hour lecture
Transfer acceptability: *CSU*
Practice in the basics of French pronunciation. Emphasis on the correct use of intonation, stress, and rhythm.

FREN 197 French Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in French. See Class Schedule for specific topic offered. Course title will designate subject covered.

FREN 201 French III (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in FREN 102 or 102B or three years of high school French*
Transfer acceptability: *CSU; UC*
This course is the third semester of French. This intermediate level course is a study of the French language and French-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials.

Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in French. Class is largely conducted in French.

FREN 202 French IV (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in FREN 201 or four years of high school French*
Transfer acceptability: *CSU; UC*
This course is the fourth semester of French. This intermediate level course is a study of the French language and of special topics on the culture of the French-speaking world. Emphasis is on further development of oral, listening, reading and writing skills in order to improve communicative competence in French. Class is largely conducted in French.

FREN 215 Advanced French (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FREN 202*
Transfer acceptability: *CSU; UC*
Continuation of the French sequence. Intensive practice in spoken French; review of essentials of French grammar and composition.

FREN 296 Special Studies in French (1, 2, 3)
1, 2, or 3 hours lecture
Note: *May be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU*
Improve French language competency and cultural awareness through individualized study, lectures or cultural activities.

General Studies

Contact the Counseling Center for further information.
(760) 744-1150, ext. 2179
Office: SSC-18A

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- General Studies - Emphasis in Arts and Humanities
- General Studies - Emphasis in Science and Mathematics
- General Studies - Emphasis in Social and Behavioral Sciences

PROGRAMS OF STUDY

General Studies

This program is designed for students who may not be planning to transfer to a four-year college and who need to explore possibilities before committing themselves to a major program. The program may serve the purposes of students who have been out of school and who need to review and assess their academic skills and interests before deciding on a definite major program. Students planning to transfer to a four-year institution are cautioned that this curriculum may not provide for completion of the lower-division requirements for transfer to a four-year institution.

A.A. DEGREE MAJOR

Select An Emphasis:

Emphasis in Arts and Humanities
(Select 18 units minimum)
Africana Studies 100, 115, 116
American Indian Studies 100, 104, 105, 108A, 108B, 135, 145, 150, 153, 154, 207A, 207B
American Sign Language 100, 101, 110, 205, 206
American Studies 100, 105
Anthropology 135, 155
Arabic 101A, 101B, 102A, 102B, 201A, 201B
Architecture 120, 121, 155
Art 100, 102, 104, 105, 165, 166, 167, 168
Chicano Studies 100, 105, 110, 115, 130, 135, 155
Chinese 101, 101A, 101B, 102, 102A, 102B, 130, 201, 201A, 201B
Cinema 100, 102, 103, 110, 120, 122
Dance 100, 101, 102, 105
English 202, 203, 205, 210, 211, 215, 220, 221, 225, 226, 230, 240, 245, 250, 255, 260, 265, 270, 280, 290
English as a Second Language 101, 102, 103
Fashion 130
Foreign Languages 108A, 108B, 207A, 207B
French 101, 101A, 101B, 102, 102A, 102B, 201, 202
German 101, 102, 201, 202
Graphic Communications 101, 102
History 105, 106
Humanities 100, 101
Interior Design 115, 120
Italian 101, 102, 201, 201A, 201B
Japanese 101, 102, 201, 202
Judaic Studies 106
Library Technology 154
Multicultural Studies 120, 122, 124, 157
Music 100, 101, 102, 103, 170, 171
Philosophy 100, 101, 102, 103, 105, 110, 115, 120, 135, 136, 250
Photography 125
Radio and Television 100
Reading 110, 120
Religious Studies 101, 105, 106, 108, 110, 120, 124
Spanish 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B, 202
Speech 100, 105, 115
Theatre Arts 100, 140, 141, 150, 157

Emphasis in Science and Mathematics
(*Select 18 units minimum)
Anthropology 100, 101
Astronomy 100, 120
Biology 100, 101, 102, 105, 106, 110, 114, 118, 130, 131, 135, 185, 200, 201, 215
Botany 100, 101, 110, 115
Business 110
Chemistry 100, 104, 105, 110, 115, 205, 210, 220, 221
CSIS-Information Technology 105
Earth Sciences 100, 115
Engineering 210
Family and Consumer Sciences 165, 185
Geography 100, 110, 115, 125
Geology 100, 110, 120, 125, 150
Health 165
Mathematics 56, 60, 100, 105, 106, 110, 115, 120, 130, 135, 140, 141, 200, 205, 206, 245
Microbiology 200
Oceanography 100, 101
Physical Science 100, 101
Physics 101, 102, 120, 121, 200, 201, 230, 231, 232
Psychology 205, 210
Sociology 205
Zoology 100, 101, 115, 116, 120, 135, 145, 200, 203
*Although not listed, related lab courses may be included as part of the 18 unit minimum.

Emphasis in Social and Behavioral Sciences
(Select 18 units minimum)
Administration of Justice 100
Africana Studies 100, 101, 102, 110, 120, 125, 126
Alcohol and Other Drug Studies 150
American Indian Studies 101, 102, 110, 120, 125, 130, 140, 165
American Studies 110, 200
Anthropology 105, 107, 110, 115, 125, 126, 130, 137, 140
Chicano Studies 101, 102, 120, 125
Child Development 100, 110, 115
Communications 100, 105
Counseling 100, 110, 115, 120

Economics 100, 101, 102, 110, 115
English 150
Family and Consumer Sciences 101, 105, 150
Fashion 132
Geography 103, 105
Graphic Communications-Multimedia & Web 100
History 101, 102, 107, 108, 121, 130, 140, 141, 150, 151, 152
Judaic Studies 107
Legal Studies 121, 240
Multicultural Studies 100, 110, 165, 200
Paralegal Studies 121, 240
Political Science 100, 101, 102, 110, 125
Psychology 100, 105, 110, 115, 120, 125 130, 145, 150, 225, 235
Religious Studies 102, 103, 107, 108
Sociology 100, 105, 110, 115, 120, 125, 130, 145, 150, 200
Speech 120, 131

Geography (GEOG)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G

Associate in Arts Degree -

AA Degree requirements are listed in Section 6 (green pages).
• Advanced Geographic Information Systems

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Advanced Geographic Information Systems

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Geographic Information Systems

PROGRAM OF STUDY

Advanced Geographic Information Systems

The Advanced Geographic Information Systems (GIS) Certificate program at Palomar College is designed to provide students with the technical and theoretical knowledge needed to pursue a successful career in growing field of geospatial analysis. Through a combination of lectures, learning modules, case studies, internships, and projects, students will learn to manage, plan, and implement GIS projects.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT*

Program Requirements		Units
GEOG 120	Intro to Geographic Information Sys/GIS Software	4
GEOG 132	Database Management and Data Acquisition	4
GEOG 134	GIS Applications	2
GEOG 136	Intermediate ArcGIS: GIS Analysis	2
GEOG 138	GIS Internship	2
Specialized Concentration (Select 2 courses)		
GEOG 140	Introduction to Remote Sensing	1
GEOG 141	Transportation Systems Analysis	1
GEOG 142	Environmental Applications of GIS	1
Electives (Select 1 course)		
CSIT 170	Visual Basic I	4
DT 110	Technical Drafting I with AutoCAD	4
TOTAL UNITS		**20**

* Advanced Geographic Information Systems A.A. Degree Major or Certificate of Achievement pending approval by the California Community Colleges Chancellor's Office at the time of catalog publication.

PROGRAM OF STUDY

Geographic Information Systems

The Geographic Information Systems Certificate program is designed to provide entry-level training for students seeking employment in this fast-growing profession, or to upgrade the skills for those already working in the field of Geographic Information Systems. The program may be completed in one year including summer session.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GEOG 120	Intro to Geographic Information Sys/GIS Software	4
GEOG 132	Database Management and Data Acquisition	4
GEOG 136	Intermediate ArcGIS: GIS Analysis	2
GEOG 138	GIS Internship	2
Electives (Select 1 course)		
CSIT 170	Visual Basic I	4
GEOG 134	GIS Applications	2
TOTAL UNITS		**14 - 16**

COURSE OFFERINGS

GEOG 100 Physical Geography (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of earth's physical environment with emphasis on weather, climate, landform, soils, and natural vegetation and the interrelationship between these elements within unique physical landscapes.

GEOG 100L Physical Geography Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 100, or concurrent enrollment in GEOG 100*
Transfer acceptability: *CSU; UC*
Laboratory and field investigations in weather elements, climate regions, soils, world ecosystems, and Earth's landform features. Satisfies laboratory requirement in physical sciences.

GEOG 103 World Regional Geography (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Critical survey of the major world regions with specific focus on physical and cultural components, such as development, economics, population and migration, political structure, and natural resources and the physical environment.

GEOG 105 Introduction to Human Geography (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Human elements of geography, including population distribution, general land use patterns, religion, trade and economy, and their correlation with the physical elements. Emphasis on world cultural regions with attention paid to interdependence and globalization.

GEOG 110 Meteorology: Weather and Climate (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Elements of weather including temperature, moisture, air pressure, and circulation of the atmosphere; air masses, storms, and their geographical distribution. Practical applications in the use of weather instruments, and the reading and interpretation of weather maps and climatological data.

GEOG 115 Natural Disasters and Environmental Hazards (3)
3 hours lecture
Note: *Cross listed as ES 115*
Transfer acceptability: *CSU; UC*
Examination and analysis of natural disasters and environmental hazards including earthquakes, tsunamis, volcanic activity, hurricanes, flooding, air and water polution, and global climate change.

GEOG 120 Introduction to Geographic Information Systems and GIS Software (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *GEOG 100 and CSIT 105*
Transfer acceptability: *CSU; UC*
An introduction to the mapping sciences with a primary focus on Geographic Information Systems (GIS). Covers the trends, history, structure, application, hardware and software, and basic operations of GIS in order to provide a foundation for the use of GIS software. Related geographic technologies to be examined include mapping, aerial and satellite imagery, and Global Positioning Systems (GPS). The lab portion will provide introductory training in the use of ArcGIS software including identifying, evaluating, and inputting spatial data, developing and using raster and vector data sets, converting data from one form to another, and applying programming with GIS software.

GEOG 125 California Geology and Geography (3)
3 hours lecture
Note: *Cross listed as GEOL 125*
Transfer acceptability: *CSU; UC*
Emphasizes the physical geographic and geologic factors that have combined to form the varied landscapes of California. Climate and vegetation patterns, as well as the various geomorphic processes will be studied.

GEOG 132 Database Management and Data Acquisition (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in GEOG 120, or concurrent enrollment in GEOG 120*
Transfer acceptability: *CSU*
Course provides students with knowledge and practical experience in the fundamentals of database management, and the acquisition, conversion, and creation of spatial data within Geographic Information Systems (GIS). Topics to include strategic design, querying, modeling techniques, data appropriateness and accuracy, hardware and software requirements, conversion of digital data, creating digital data using digitizers, scanners and Global Positioning Systems (GPS), and utilization of remote sensing, photogrammetry, and web-based data. This course provides hands-on experience with database management and data acquisition using ArcGIS software.

GEOG 134 GIS Applications and Programming (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
Course provides students with advanced knowledge and practical experience in developing Geographic Information Systems (GIS) applications. Students will learn the fundamentals of GIS and database programming, as well as the customization of GIS applications. The lab portion of this course provides hands-on experience with GIS programming using Visual Basic for Applications (VBA), data management using geodatabases, and applications development using ArcObjects.

GEOG 136 Intermediate ArcGIS: GIS Analysis (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
Course will focus on performing complex operations using the ArcGIS software. Students will gain hands-on experience in advanced querying operations, Spatial Analyst and Network Analyst, coordinate geometry, ArcGIS ModelBuilder, and the application of ArcGIS in a variety of disciplines.

GEOG 138 GIS Internship (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
The Geographic Information Systems (GIS) internship is a directed program allowing students to apply classroom instruction to real-world GIS problem solving by working with a government or private agency. Students will be under the supervision of an instructor from the college and an advisor from the agency while working in one or more aspects of GIS operations.

GEOG 140 Introduction to Remote Sensing (1)
1 hour lecture
Recommended preparation: *Basic familiarity with computers and the windows operating system.*
Transfer acceptability: *CSU*
Provides students with a basic understanding of remote sensing theory and implementation. Topics include satellite imageries, data acquisition, and image interpretation.

GEOG 141 Transportation Systems Analysis (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
Provides students with more advanced practical experience in applying GIS to transportation systems. Students will gain more advanced hands-on experience using GIS as a tool to help model transportation planning, find the shortest routes, and analyze service areas and optimum routing. Introduces students to ESRI's network analyst extension and the various ways this tool can enhance transportation analysis.

GEOG 142 Environmental Applications of GIS (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
Provides students with knowledge and practical experience in the application of GIS in an environmental setting. We will explore how location-based GIS tools are used in many areas of environmental management such as natural disasters, biodiversity, water resources, and pollution. Case studies will be used to explore and understand how GIS is being used to help preserve the earth's resources and environment.

GEOG 143 Introduction to Cartography and Computer Mapping (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU; UC (pending)*
Provides the technical and design skills needed to create an effective map using Geographic Information Systems (GIS). Students will receive a review on map projection, coordinate systems, and datum transformation issues. In addition, students will learn about map templates, map annotations, and other tools that are used to enhance spatial data presentation.

GEOG 195 Regional Field Studies in Geography (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Extended field studies of the geography of selected regions. Emphasis upon field observation and interpretation of climate, meteorology, vegetation, soils, and landforms.

GEOG 295 Directed Study in Geography (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by instructor*
Note: *May be taken 4 times for a maximum of six units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study for students who have demonstrated skills and/or proficiencies in geography subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Geology (GEOL)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Geology

PROGRAM OF STUDY

Geology

Provides the student with sufficient background to begin upper division coursework and will prepare the student for entry-level jobs that require basic geologic knowledge. The student is advised to check with the school to which he/she may wish to transfer for additional courses which may be required.

A.A. DEGREE MAJOR

Program Requirements		Units
Group One		
GEOL 100	Basic Geology	3
GEOL 100L	Basic Geology Laboratory	1
GEOL 150	Dinosaurs and Earth History	3
GEOL 150L	Dinosaurs and Earth History Laboratory	1
GEOL 195	Regional Field Studies in Geology	2
Group Two (Select at least two sets of courses listed below)		
Set 1		
MATH 140 and	Calculus/Analytic Geometry, First Course	5
MATH 141	Calculus/Analytic Geometry, Second Course	4
Set 2		
PHYS 120 and		
PHYS 121	General Physics	8
or		
PHYS 230 and		
PHYS 231	Principles of Physics	10
Set 3		
CHEM 110	General Chemistry	3
CHEM 110L	General Chemistry Laboratory	2
CHEM 115	General Chemistry	3
CHEM 115L	General Chemistry Laboratory	2
Group Three (Select at least 8 units)		
Any other courses in Group Two not taken above		8-10
GEOL 110	General Geology: National Parks	3
GEOL/ GEOG 125	California Geology and Geography	3
GEOL 195	Regional Field Studies in Geology	1, 2, 3
GEOL 197	Geology Topics	1, 2, 3
GEOL 295	Directed Study in Geology	1, 2, 3
ASTR 100	Principles of Astronomy	3
BIOL 100	General Biology	4
MATH 205	Calculus/Analytic Geometry, Third Course	4
MATH 206	Calculus/Differential Equations	4
OCN 100	Oceanography	3
OCN 100L	Oceanography Laboratory	1
PHYS 232	Principles of Physics	4
TOTAL UNITS		**35 - 38**

COURSE OFFERINGS

GEOL 100 Basic Geology (3)
3 hours lecture
Note: *Together with GEOL 150, a prerequisite to upper division courses in Geology*
Transfer acceptability: *CSU; UC*
Principles of physical geology. Plate tectonics, rocks and minerals, weathering, mass-wasting, surface and ground water, wind, waves and currents, glaciation, mountain building, volcanoes and other igneous activity, deformation and resulting structures, earthquakes, Earth's interior, geologic time, and earth resources.

GEOL 100L Basic Geology Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOL 100, or concurrent enrollment in GEOL 100*
Note: *May be offered as a field laboratory; satisfies lab requirement in Physical Science*
Transfer acceptability: *CSU; UC*
Laboratory and field identification of rocks and rock forming minerals. Study of geologic processes by means of geologic and topographic maps.

GEOL 110 General Geology: National Parks and Monuments (3)
3 hours lecture
Transfer acceptability: *CSU*
Geologic history and processes of formation of our natural landscape. Principles of physical and historical geology as revealed in the structure, stratigraphy, and rock types of the parks and monuments.

GEOL 120 Planets, Moons, and Comets (3)
3 hours lecture
Note: *Cross listed as ASTR 120*
Transfer acceptability: *CSU; UC – ASTR/GEOL 120 and ASTR 205 combined: maximum credit, one course*
The astronomy and geology of the solar system, observations, dynamics, relativistic ideas, including theories of formation and evolution. Comparative survey of the atmospheres, surface features, and interiors of planets and satellites. Minor objects, such as comets and asteroids, will be included.

GEOL 125 California Geology and Geography (3)
3 hours lecture
Note: *Cross listed as GEOG 125*
Transfer acceptability: *CSU; UC*
Emphasizes the physical geographic and geologic factors that have combined to form the varied landscapes of California. Climate and vegetation patterns, as well as the various geomorphic processes will be studied.

GEOL 150 Dinosaurs and Earth History (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in GEOL 100, 110 or 125*
Transfer acceptability: *CSU; UC*
Principles of historical geology. The origin and evolution of Earth and its biosphere, incorporating plate tectonics, stratigraphy, paleontology, and geologic dating. Together with GEOL 100, a prerequisite to upper division courses in geology.

GEOL 150L Dinosaurs and Earth History Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOL 150, or concurrent enrollment in GEOL 150*
Transfer acceptability: *CSU; UC*
Laboratory and field identification of rocks and fossils. Elements of stratigraphic methods and of vertebrate and invertebrate paleontology. Study of geologic and topographic maps in relation to earth history.

GEOL 195 Regional Field Studies in Geology (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in GEOL 100, 110 or 125 or GEOG 100*
Note: *May be taken 4 times with different content for a maximum of 6 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Extended field studies of the geology of western North America over weekends and during vacation and summer sessions. Emphasis upon field observation and interpretation of rock types, landforms, and structure. Localities visited may vary from year to year.

GEOL 197 Geology Topics (1-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 3 times for a maximum of 6 units*
Transfer acceptability: *CSU*
Topics in Geology. See Class Schedule for specific topic offered. Course title will designate subject covered.

GEOL 295 Directed Study in Geology (1, 2, 3)
Arrange 3, 6, or 9 hours laboratory with department chairperson
Prerequisite: *A minimum grade of 'C' in GEOL 150*
Note: *May be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU – UC Credit determined by UC upon review of course syllabus.*
Individual study in field, library, or laboratory for interested students.

German (GERM)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

GERM 101 German I (5)
5 hours lecture-1 hour laboratory
Transfer acceptability: *CSU; UC*
This course is the first semester of German. This elementary level course is a study of the German language and German-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in German.

GERM 101A German IA (3)
3 hours lecture
Note: Covers the first half of GERM 101; not open to students with credit for GERM 101
Transfer acceptability: CSU; UC
German 101A is equivalent to the first half of German 101. This elementary level course is a study of the German language and German-speaking cultures, with emphasis on the development of communicative skills and basic structures. This beginning-level course is for students with no previous coursework in German.

GERM 101B German IB (3)
3 hours lecture
Prerequisite: A minimum grade of 'C' in GERM 101A or one year of high school German
Note: Covers the second half of GERM 101; not open to students with credit for GERM 101
Transfer acceptability: CSU; UC
German 101B is equivalent to the second half of German 101, and is a continuation of German 101A. This elementary level course is a study of the German language and German-speaking cultures, with emphasis on the development of communicative skills and basic structures.

GERM 102 German II (5)
5 hours lecture-1 hour laboratory
Prerequisite: *A minimum grade of 'C' in GERM 101 or 101B or two years of high school German*
Transfer acceptability: *CSU; UC*
This course is the second semester of German. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

GERM 102A German IIA (3)
3 hours lecture
Prerequisite: A minimum grade of 'C' in GERM 101 or 101B or two years of high school German
Note: Covers the first half of GERM 102; not open to students with credit for GERM 102
Transfer acceptability: CSU; UC
German 102A is equivalent to the first half of German 102. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

GERM 102B German IIB (3)
3 hours lecture
Prerequisite: A minimum grade of 'C' in GERM 102A or two years of high school German
Note: Covers the second half of GERM 102; not open to students with credit for GERM 102
Transfer acceptability: CSU; UC
German 102B is equivalent to the second half of German 102, and is a continuation of German 102A. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

GERM 201 German III (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in GERM 102 or three years of high school German*
Transfer acceptability: *CSU; UC*
This course is the third semester of German. This intermediate level course is a study of the German language and German-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in German. Class is largely conducted in German.

GERM 202 German IV (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in German 201 or four years of high school German*
Transfer acceptability: *CSU; UC*
This course is the fourth semester of German. This intermediate level course is a study of the German language and of special topics on the culture of the German-speaking world. Emphasis is on further development of cross-cultural awareness, as well as, the development of oral, listening, reading and writing skills in order to improve communicative competence in German. Class is largely conducted in German.

Graphic Communications (GC)

See also Graphic Communications - Imaging & Publishing, and Graphic Communications - Multimedia & Web

Contact the Graphic Communications Department for further information.
(760) 744-1150, ext. 2452
Office: GJ-6
For transfer information, consult a Palomar College Counselor.

COURSE OFFERINGS

GC 100 Graphic Communications (3)
3 hours lecture
Transfer acceptability: *CSU*
Explores the history and theory of effective mass communication from prehistoric cave art, to invention of the printing press, and modern graphic communication techniques using computers and the Internet. The class examines communication models revolving around imagery, type, delivery systems, and technology. The students will be able to understand and establish the effects of a clear visual message. Learning modules include slideshow, field trips, guest speakers, discussion, lectures and hands-on application with computers and the Internet to promote an understanding of graphic communications and visual messages and their impact on society.

GC 101 History of Graphic Communications (3)
3 hours lecture
Transfer acceptability: *CSU*
This course focuses on the history and evolution of graphic communications from

prehistoric pictographs to present day graphic design. Topics include the invention of writing and the creation of alphabets. Other topics include world influences on print and aesthetic design, and an understanding of the stylistic, social, political, economic, and historical events as related to communication and graphic design. The emphasis is on art movements, schools of thought, influential individuals, and technology as they interrelate with the history of graphic arts. Historical topics are applied to photography, print media graphics and motion graphics. Field trips to museums and guest speakers will be integrated into the topics as appropriate.

GC 102 History of the Book and Publishing: Papyrus to Pixels (3)

3 hours lecture

Transfer acceptability: *CSU; UC*

A foundational course that explores the history and development of the book, printing, and publishing. Also explores their correlation with advancement of society, civilization, and the dissemination of information, including the history of the printing press, typesetting, papermaking, print technology and bindery.

Graphic Communications - Imaging & Publishing (GCIP)

See also Graphic Communications and Graphic Communications - Multimedia & Web

Contact the Graphic Communications Department for further information.
(760) 744-1150, ext. 2452
Office: GJ-6
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Digital Imaging
- Graphic Communications - Emphasis in Electronic Publishing
- Graphic Communications - Emphasis in Management
- Graphic Communications - Emphasis in Production
- Screen Printing

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Digital Imaging
- Graphic Communications - Emphasis in Electronic Publishing
- Graphic Communications - Emphasis in Management
- Graphic Communications - Emphasis in Production
- Screen Printing

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Digital Arts
- Digital Prepress Operator
- Digital Publishing
- Electronic Publisher
- Screen Printer

Digital Arts

Specific skills for the Digital Arts certificate include graphic design methodologies, including the design process, output production and presentation. The certificate prepares students to gain competence with the industry standard for digital imaging: Adobe Photoshop. Color, resolution, input and output, production process, photography and creativity are core competencies. Upon completion of the certificate, the student may find a job as a production artist, illustrator, graphic artist, or in digital imaging.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP 141	Digital Imaging/Photoshop II	4
GCIP 240	Digital Imaging/Photoshop III	4
ARTD 150 or	Digital Concepts and Techniques in Art	3
PHOT 230	Digital Darkroom I	3
TOTAL UNITS		**15**

Digital Imaging

Prepares students for entry-level position as creator and processor of digital imagery. Layout and creative position in multimedia, internet publishing, digital video, publishing, photography, and motion graphics.

Digital imaging is one of the basic requirements for all electronic communication delivery systems.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 122	Painter I	4
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP 141	Digital Imaging/Photoshop II	4
GCIP 240	Digital Imaging/Photoshop III	4
GCMW 203	Web Multimedia	4
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
PHOT 100	Elementary Photography	3.5
PHOT 230	Digital Darkroom I	3
TOTAL UNITS		**34.5**

Digital Imaging A.A. Degree Major or Certificate of Achievement is also listed under Photography.

Digital Prepress Operator

Prepares students to pursue entry-level employment in the printing industry in prepress, press, and finishing processes.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCIP 180	Digital Prepress and Press I	4
GCIP 182	Digital Prepress and Press II	4
GCIP 280	Digital Prepress and Press III	4
TOTAL UNITS		**12**

Digital Publishing

Designed to meet the increasing needs of organizations and businesses that distribute publications in both electronic and print media. Specific skills for the Digital Publishing certificate include typography, visual acuity, graphic design and layout. The certificate prepares students to gain competence with the basic applications used in industry for digital graphics and electronic publishing. Teamwork, problem solving, workflow and production process, communication and creativity are core competencies. Upon completion of the certificate, the student may find a job as a production artist, illustrator, graphic artist, graphic designer, or in digital imaging.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP 141	Digital Imaging/Photoshop II	4
GCIP/ R GCIP 149	Page Layout and Design I	4
GCIP/ R GCIP 152	Desktop Publishing/Illustrator I	4
or GCMW 103	Interactive Publishing with PDFs	4
TOTAL UNITS		**16**

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Electronic Publisher

Electronic publishing encompasses computer-based document layout, composition, typography, illustration, scanning, image modification, as well as reproduction and distribution. It has revolutionized print communications. There will be a major growth in this field in the future.

Employment opportunities will be with commercial printers, corporate electronic publishers, small print shops, service bureaus, direct mail companies, magazine publishers, advertising, typographers and compositors, freelance publications, newspaper publishers, marketing and ad agencies, and in-plant printers.

CERTIFICATE OF PROFICIENCY

Required Courses		**Units**
GCIP 105	Layout for Offset Lithography	4
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/ R GCIP 149	Page Layout and Design I	4
GCIP 152 / R GCIP 152	Desktop Publishing/Illustrator I	4
TOTAL UNITS		**16**

Graphic Communications Emphasis in Electronic Publishing

Electronic publishing–which encompasses computer based document layout, composition, typesetting, illustration, scanning, image modification, reproduction, and distribution–has revolutionized print communications. There will be major growth in this field in the future. Employment opportunities will be with commercial printers, corporate electronic publishers, small printers, service bureaus, quick printers, direct mail companies, magazine publishers, advertising, typographers and compositors, freelance publications, newspaper publishers, inplant printers, and other still growing applications.

The 19 units of Program Requirements are the same for Graphic Communications Emphasis in Electronic Publishing, Graphic Communications Emphasis in Management, and Graphic Communications Emphasis in Production. Students may complete one or more of these programs by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements (23 units)		**Units**
GC 100 or GC 101	Graphic Communications History of Graphic Communications	3
GCIP 103	Acrobat for Print	4
GCIP 105	Layout for Offset Lithography	4
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/ R GCIP 149	Page Layout and Design I	4
GCIP 180	Digital Prepress and Press I	4
Emphasis Requirements (11 units)		
ARTD 210	Typography Design	3
GCIP/ R GCIP 152	Desktop Publishing/Illustrator I	4
GCIP/ R GCIP 260	Portfolio Development and Presentation	4
Electives (Select one course, 1 – 4 units)		
ARCH/DT 125	AutoCAD Introduction to Computer Aided Drafting	3
ARTD 100	Graphic Design I	3
CSIT 105	Computer Concepts and Applications	3
GC 102	History of the Book and Publishing: Papyrus to Pixels	3
GCIP 141	Digital Imaging/Photoshop II	4
GCIP 240	Digital Imaging/Photoshop III	4
GCIP 252	Desktop Publishing/Illustrator II	4
GCIP 255	Electronic Package Design	4
GCIP 182	Digital Prepress and Press II	4
GCIP 280	Digital Prepress and Press III	4
GCIP/ R GCIP 249	Page Layout and Design II	4
GCMW/ R GCMW 102	Web Page Layout I	4
JOUR 105	Newspaper Production	3
PHOT 100	Elementary Photography	3.5
CE 100*	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**35 - 38**

*Cooperative Education must be related to this major.

Graphic Communications Emphasis in Management

Prepares students to pursue employment in the printing industry in prepress, press, and finishing processes.

The 19 units of Program Requirements are the same for Graphic Communications Emphasis in Electronic Publishing, Graphic Communications Emphasis in Management, and Graphic Communications Emphasis in Production. Students may complete one or more of these programs by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements (23 units)		**Units**
GC 100 or GC 101	Graphic Communications History of Graphic Communications	3
GCIP 103	Acrobat for Print	4
GCIP 105	Layout for Offset Lithography	4
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/ R GCIP 149	Page Layout and Design I	4
GCIP 180	Digital Prepress and Press I	4
Emphasis Requirements (7 units)		
CSIT 105	Computer Concepts and Applications	3
GCIP 182	Digital Prepress and Press II	4
Electives (Select two courses, 4 – 8.5 units)		
BUS 105 and BUS 105L	Bookkeeping Fundamentals Bookkeeping Electronic Spreadship Lab	4 .5
BUS 115	Business Law	3
BUS 125	Business English	3
BUS 140	Selling for Business	3
BUS 155	Marketing	3
BMGT 105	Small Business Management	3
BMGT 115	Organizational Theory and Design	3
GC 102	History of the Book and Publishing: Papyrus to Pixels	3
GCIP 141	Digital Imaging/Photoshop II	4
GCIP/ R GCIP 249	Page Layout and Design II	4
GCIP 280	Digital Prepress and Press III	4
CE 100*	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**34 – 38.5**

*Cooperative Education must be related to this major.

Graphic Communications Emphasis in Production

Prepares students to pursue employment in the printing industry in prepress, press, and finishing processes.

The 18 units of Program Requirements are the same for Graphic Communications Emphasis in Electronic Publishing, Graphic Communications Emphasis in Management, and Graphic Communications Emphasis in Production. Students may complete one or more of these programs by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GC 100 or	Graphic Communications	
GC 101	History of Graphic Communications	3
GCIP 103	Acrobat for Print	4
GCIP 105	Layout for Offset Lithography	4
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/		
R GCIP 149	Page Layout and Design I	4
GCIP 180	Digital Prepress and Press I	4
Emphasis Requirements		
GCIP 182	Digital Prepress and Press II	4
GCIP 280	Digital Prepress and Press III	4
Electives (Select one courses, 1 – 4 units)		
BUS 125	Business English	3
CSIT 105	Computer Concepts and Applications	3
GC 102	History of the Book and Publishing: Papyrus to Pixels	3
GCIP 141	Digital Imaging/Photoshop II	4
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	4
JOUR 105	Newspaper Production	3
JOUR 205	Advanced Newspaper Production	3
PHOT 100	Elementary Photography	3.5
CE 100*	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**32 – 35**

* Cooperative Education must be related to this major.

Screen Printer

Recent advances in technology have allowed screen printing to compete on a large scale with other printing processes. Productive, challenging careers are growing in the screen printing field at a steady rate. Palomar's screen printing process classes prepare students for duties in project planning, copy preparation, camera operation, screen preparation, electronic prepress, stencil making, screen printing, and sales.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCIP 170	Screen Printing	4
GCIP/		
R GCIP 172	Textile Screen Printing	4
GCIP 270	Commercial Screen Printing	4
TOTAL UNITS		**12**

Screen Printing

Prepares students for entry-level positions in project planning, copy preparation, camera operation, screen preparation, stencil making, printing, and sales.

Due to recent advances in screen printing technology, screen printing is becoming very commercialized. These breakthroughs have allowed screen printing to compete on a large scale with other processes. Productive, challenging careers are growing in the screen printing field at a steady rate.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BMGT 105	Small Business Management	3
GCIP 105	Layout for Offset Lithography	4
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	4
GCIP 170	Screen Printing	4
GCIP/		
R GCIP 172	Textile Screen Printing	4
GCIP 180	Digital Prepress and Press I	4
GCIP 270	Commercial Screen Printing	4
Electives (Select one course)		
GCIP 182	Digital Prepress and Press II	4
GCIP 240	Digital Imaging/Photoshop III	4
GCIP 252	Desktop Publishing/Illustrator II	4
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**32 - 35**

COURSE OFFERINGS

GCIP 103 Acrobat for Print (4)
3 hours lecture - 3 hours laboratory
Note: May be taken 4 times
Transfer acceptability: CSU
Hands-on instruction in creating and editing high quality, print-ready PDF files using Adobe Acrobat. This course also includes the estimating of materials and labor relative to current industry practices for the production of a printed product.

GCIP 105 Layout for Offset Lithography (4)
3 hours lecture - 3 hours laboratory
Note: May be taken 4 times
Transfer acceptability: CSU
Planning and layout of visual communication for offset lithography. Basic computer applications for layout of business communication set or eight page booklet using type, color, images, paper, and the lithographical production processes to complete the package. Emphasis is on practical application.

GCIP 122 Painter I (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: CSU
Provides the student with the knowledge to electronically simulate natural media tool and textures. The class covers the use of Painter as an image-editing tool. Students will produce electronic images simulating the use of painting and drawing tools.

GCIP 140 Digital Imaging/Photoshop I (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *Basic computer skills.*
Note: Cross listed as R GCIP 140; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240
Transfer acceptability: CSU; UC
The study of digital imaging and editing with Adobe Photoshop for visual, pictorial and graphic use in all media. Emphasis on creating and enhancing imagery for effective use in mass communication mediums.

GCIP 140A Digital Imaging/Photoshop IA (2)
1 hour lecture - 3 hours laboratory
Note: May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240
Transfer acceptability: CSU; UC
Introduction to digital imaging systems with Photoshop for Graphic Communications and Multimedia. Emphasis on basic and intermediate features and functions of Photoshop with a primary focus on preparing and using optimized images for the web. Special projects facilitate the needs of more advanced students.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

GCIP 140B Digital Imaging/Photoshop IB (2)
1 hour lecture - 3 hours laboratory
Note: *For intermediate levels; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240*
Transfer acceptability: *CSU; UC*
A hands-on introduction to digital imaging systems with Photoshop for Graphic Communications and Multimedia. Emphasis on basic and intermediate features and functions of Photoshop with a primary focus on preparing and using optimized images for the web. Special projects facilitate the needs of more advanced students.

GCIP 141 Digital Imaging/Photoshop II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140*
Note: *Maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240*
Transfer acceptability: *CSU; UC*
The concepts of intermediate digital imaging with Adobe Photoshop for visual, pictorial and graphic use in all media. Effective image creation for motion graphics, publications and internet for effective visual communications.

GCIP 141A Digital Imaging/Photoshop IIA (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240*
Transfer acceptability: *CSU; UC*
Intermediate level of Photoshop focusing on digital art and graphics with an emphasis on website development. A working knowledge of Photoshop is suggested as well as a basic knowledge of using computers (Mac. PC). Students will produce digitally manipulated art and website design to be used print and/or digital portfolio presentations.

GCIP 141B Digital Imaging/Photoshop IIB (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140, or concurrent enrollment in GCIP/R GCIP 140*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240*
Transfer acceptability: *CSU; UC*
Intermediate level of Photoshop focusing on digital art and graphics with an emphasis on website development. A working knowledge of Photoshop is suggested as well as a basic knowledge of using computers (Mac. PC). Students will produce digitally manipulated art and website design to be used print and/or digital portfolio presentations.

GCIP 149 Page Layout and Design I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as R GCIP 149; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 149, 249*
Transfer acceptability: *CSU*
Introduction to electronic document design and page layout, electronic composition, text and graphics entry with computers. Students will create a variety of projects including but not limited to: brochures, flyers, and newsletters.

GCIP 152 Desktop Publishing/Illustrator I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as R GCIP 152; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 152, GCIP 152A, 152B, 252*
Transfer acceptability: *CSU*
Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images into PostScript. Quality levels needed for electronic output will be evaluated.

GCIP 152A Desktop Publishing/Illustrator IA (2)
1 hour lecture - 3 hours laboratory
Recommended preparation: *Basic computer skills*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 152, GCIP 152A, 152B, 252*
Transfer acceptability: *CSU*
Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images in PostScript. Quality levels needed for electronic output will be evaluated.

GCIP 152B Desktop Publishing/Illustrator IB (2)
1 hour lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 152, GCIP 152A, 152B, 252*
Transfer acceptability: *CSU*
Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images in PostScript. Quality levels needed for electronic output will be evaluated. Topics included: printing, separations, working with graphics from multiple applications with Illustrator, and production of Web graphics.

GCIP 170 Screen Printing (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Screen printing theory and application of layout and image preparation, computer applications, stencil methods, process camera and basic screen printing techniques. Practical application is stressed.

GCIP 172 Textile Screen Printing (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as R GCIP 172; may be taken 4 times*
Transfer acceptability: *CSU*
Theory and applications of screen printing for textile use. Copy preparation for multicolor reproduction, color matching, ink selection, and mesh and stencils for material compatibility.

GCIP 180 Digital Prepress and Press I (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP 180, 182, 280*
Transfer acceptability: *CSU*
Practical applications of electronic prepress and introduction to offset press operation. The theory and practical applications of conventional and digital prepress including job layout, page impositions, templates and press signatures, plus small format press operation to include control and setup of feeder and delivery units, press controls, direct to plate technology, ink and chemistry as related to the offset press.

GCIP 182 Digital Prepress and Press II (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP 180, 182, 280*
Transfer acceptability: *CSU*
Set up and control of printing on small offset presses. Examines offset chemistry, kinds of offset plates, inks, and offset press problems. Theory and practical applications of conventional and digital prepress.

GCIP 197A Topics in Graphic Communications (1- 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Cross listed as R GCIP 197A; may be taken 3 times*
Transfer acceptability: *CSU*
Short term or special topic course, lecture or laboratory courses in various topics in Graphic Communications.

GCIP 197B Topics in Digital Imaging (1-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Graphic Communications topics in digital imaging. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCIP 197C Topics in Electronic Publishing (1-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Graphic Communications topics in electronic publishing. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCIP 197D Topics in Graphic Processes (1-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Graphic Communications topics in graphic processes. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCIP 222 Painter II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 122 and GCIP/R GCIP 140*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP 122, 222*
Transfer acceptability: *CSU*
Advanced concepts and methods of Painter and its use in image making, image editing, and problem solving. Students will create their own tools using the Painter interface and work collectively with other students through the use of student created tools in the design and construction of digital imagery.

GCIP 240 Digital Imaging/Photoshop III (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140 and GCIP 141*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240*
Transfer acceptability: *CSU*
The concepts of advanced digital imaging with Adobe Photoshop for creating and preparing images for electronic distribution. Advanced methods of editing in all venues of digital media for visual communications.

GCIP 249 Page Layout and Design II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140 and GCIP/R GCIP 149*
Note: *Cross listed as R GCIP 249; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 149, 249*
Transfer acceptability: *CSU*
Intermediate concepts of electronic document layout, typography, and graphics. Software capabilities in creating sophisticated graphic and type treatments.

GCIP 252 Desktop Publishing/Illustrator II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GC 101 and GCIP/R GCIP 152*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 152, GCIP 152A, 152B, 252*
Transfer acceptability: *CSU*
Advanced concepts and methods of Illustrator and its use in graphic illustrations and problem solving. Software capabilities for use in preparing computer files for publishing to digital and electronic delivery systems.

GCIP 255 Electronic Package Design (4)
3 hours lecture- 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 152/R GCIP 152 and/or GCIP 252*
Transfer acceptability: *CSU*
Packaging continues to be one of the fastest growing segments of the graphic communication industry. Learn the importance of packaging graphics and how to create digital files implementing computer and printing technology. In this course you will identify the issues in design strategies for a successful packaging campaign and the technical expertise to produce your designs. Explore the development of packaging through a series of case studies and real-life design and technical tips.

GCIP 260 Portfolio Development and Presentation (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140 and GCIP/R GCIP 152*
Note: *Cross listed as R GCIP 260; may be taken 2 times*
Transfer acceptability: *CSU*
Students will develop a personal portfolio to showcase their graphic skills and techniques. Various resources, including the Internet, will be used to conduct a job search, develop a resume and learn interviewing techniques. Guest speakers will share industry tips. Students will practice presentation and interviewing skills, with feedback from professionals working in graphics and related industries.

GCIP 270 Commercial Screen Printing (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 170 and GCIP/R GCIP 172*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Commercial screen printing applications. Preparation of mechanicals using close registration and printing on standard and unusual surfaces. Color, mechanical process, and quality control standards in screen printing.

GCIP 280 Digital Prepress and Press III (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 182*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCIP 180, 182, 280*
Transfer acceptability: *CSU*
Advanced work on larger format offset equipment focusing on sheet control, register, ink and water control, and digital imposition.

GCIP 290 Copyright for Graphic Designers & Web Developers (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 149 and/or GCMW/R GCMW 102*
Note: *Cross listed as GCMW 290; may be taken 4 times*
Copyright is an old and well codified area of law. The statutes and cases, however, have created complexities that are sometimes difficult to understand. This course covers the basics of copyright law, copyright registration, methods of informing viewers of copyright protections and liability, and the ways in which a graphic designer may enforce copyright. The damages and remedies of injunction and compensation are included. This course is not intended to offer legal advice. Consult with competent legal professionals for any questions regarding specific copyright issues.

GCIP 291 Contracts for Graphic Designers & Web Developers (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 149 and/or GCMW/R GCMW 102*
Note: *Cross listed as GCMW 291; may be taken 4 times*
Graphic designers, whether employed by business or freelance, need to understand contract terms, negotiation, conditions, and the statutory and case law uniquely applicable to graphic design. Understanding the terms of a contract is essential to protecting the rights to use of work product and obtaining compensation. Failing to do so usually results in abuse of rights and non-compensation. This course is not intended to offer legal advice. Consult with competent legal professionals for any questions regarding specific contractual issues.

GCIP 292 Legal Issues for Graphic Designers and Web Developers (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 149 and/or GCMW/R GCMW 102*
Note: *Cross listed as GCMW 292*
This course will cover most legal issues that confront graphic designers and web developers in the day-to-day operation of the businesses. Specific legal issues will include business formation, contracts, copyright, licensing, deep linking, click wrap agreements, and the risks and benefits of self employment versus employment by a business. This course is not intended to offer legal advice. Consult with competent legal professionals for any questions regarding specific legal issues.

GCIP 295 Directed Study in Graphic Communications (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Note: *Cross listed at GCMW 295, may be taken 4 times*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in Graphic Communications subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

GCIP 296 Special Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Recommended preparation: *Advanced coursework or job-related experience*
Note: *Cross listed as GCMW 296, may be taken 4 times*
Transfer acceptability: *CSU*
Independent work on a specified sustained project which does not fit into the context of regularly scheduled classes. Students work from a contract agreed upon by the student and the instructor.

Graphic Communications - Multimedia & Web (GCMW)

See also Graphic Communications and Graphic Communications - Imaging & Publishing

Contact the Graphic Communications Department for further information.
(760) 744-1150, ext. 2452
Office: GJ-6
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Digital Video
- Interactive Media Design - Emphasis in 3D Modeling and Animation
- Interactive Media Design - Emphasis in Multimedia Design
- Interactive Web Multimedia and Audio
- Internet - Emphasis in Graphic Communication
- New Media Compositing, Authoring, and Distribution

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Digital Video
- Interactive Media Design - Emphasis in 3D Modeling and Animation
- Interactive Media Design - Emphasis in Multimedia Design
- Interactive Web Multimedia and Audio
- Internet - Emphasis in Graphic Communication
- New Media Compositing, Authoring, and Distribution

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Digital Animation, Compositing, and Music
- Digital Media
- E - Commerce Design
- Internet Publisher
- Video Game Artist
- Web Data Base Design
- Web Graphics
- Web Motion Graphics

PROGRAMS OF STUDY

Digital Animation, Compositing, and Music

This program is directed at the digital design and implementation of 3D animations, graphic compositing and music.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
(5 courses minimum required)		
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	4
GCMW 206	Motion Graphics Production and Compositing	4
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	3
TOTAL UNITS		**16 - 17**

Digital Animation, Compositing, and Music Certificate of Proficiency is also listed in Art and in Music.

Digital Media

Digital Media encompasses digital video editing in both analog and digital media. The certificate prepares students for employment in the film, video, Internet, and television industries. Major growth in this industry is anticipated as Internet and television merge into one medium.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CINE/RTV 125	Beg Film/Video Field Production	3
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television & Film	3
TOTAL UNITS		**17**

Digital Media Certificate of Proficiency is also listed under Radio and Television.

Digital Video

Digital Video encompasses editing and design in using both digital and analog media. This degree prepares students for employment in the film, video, Internet, and television industries.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP/ R GCIP 140	Digital Imaging/PhotoShop I	4
GCMW 165	Digital Video Design	4
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
RTV/CINE 125	Beg Film/Video Field Production	3
RTV 230	Digital Audio with Pro Tools	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television and Film	3
Electives (2 courses required, 6 units minimum)		
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max–Intro to 3D Modeling/Animation	3
GCIP/ R GCIP 152	Desktop Publishing/Illustrator I	4
GCIP 240	Digital Imaging/PhotoShop III	4
GCMW/ R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
GCMW 203	Web Multimedia	4
GCMW 108	Web Motion Graphics I	4
GCMW 208	Web Motion Graphics II	4
RTV 50	Basic Television Acting	1
RTV 110	Broadcast Writing and Producing	3
RTV/ENTT 120	Digital Television Production	3
RTV 150	Performance and Acting for Broadcast and Film	3
RTV 170	Introduction to Video Editing	3
RTV/CINE 225	Intermediate Film and Video Field Production	3
TOTAL UNITS		**34**

Digital Video A.A. Degree Major or Certificate of Achievement is also listed under Radio and Television.

E - Commerce Design

Provides students with a basis for understanding and participating in the design and production of e-business and e-commerce. Specific skills for the E-Commerce Design certificate include Web production, site accessibility, shopping carts, site and data management, security, privacy, and commercial site promotion. Teamwork, problem solving, production process, communication and creativity are core competencies. Upon completion of the certificate, the student may find a job as a graphic designer, Web author, or graphical user interface designer.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
BUS 157	E-Commerce	3
GCIP/ GCMW 290 or	Copyright for Graphic Design and Web Developers	
GCIP/ GCMW 291 or	Contracts for Graphic Design and Web Developers	
GCMW 232	Web Accessibility Design	1
GCMW 202	Web Page Layout II	4
GCMW 216 or	Web Data Base Design I	
GCMW 220	Designing for Web Standards I	4
GCMW 217 or	Online Store Design I	
GCMW 218	Online Store Design II	4
TOTAL UNITS		**16**

Interactive Media Design

Prepares students with specific skills necessary for employment in the field of multimedia design and production. Students may choose an emphasis in either 3D modeling and animation, which emphasizes production skills and authoring systems, or multimedia design, which emphasizes content development and visual design of multimedia productions. Both areas of emphasis collaborate on an actual multimedia production.

Emphasis in 3D Modeling and Animation

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ARTI 100	Introduction to Illustration	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max–Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max–Adv 3D Modeling/Animation	3
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCMW 204	Motion Graphics for Multimedia	4
Electives (Select two courses)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
DT 128	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
GCIP 240	Digital Imaging/Photoshop III	4
GCMW 100	History of Multimedia	3
GCMW 201	Multimedia II	4
ENTT/RTV 120	Digital Television Production	3
TOTAL UNITS		**28 – 29**

Emphasis in Multimedia Design

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ARTD 100	Graphic Design I	3
ARTD 220	Motion Design	3
ARTI 247	Digital 3D Design and Animation	3
GCIP 240	Digital Imaging/Photoshop III	4
GCMW/ R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
GCMW 204	Motion Graphics/Multimedia	4
Electives (Select two courses)		
ART 197G	Topics in Art – Computer Art	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 246	Digital 3D Design/Modeling	3
DT 180	3D Studio Max–Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max–Adv 3D Modeling/Animation	3
GC 100	Graphic Communications	3
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP/ R GCIP 152	Desktop Publishing/Illustrator I	4
GCMW 100	History of Multimedia	3
GCMW/ R GCMW 102	Web Page Layout I	4
GCMW 197B	Topics in Multimedia	3
GCMW 203	Web Multimedia	4
MUS 180	Computer Music I	3
RTV 170	Introduction to Video Editing	3
TOTAL UNITS		**31-33**

Interactive Media Design A.A. Degree or Certificate of Achievement is also listed in Art and in Drafting Technology.

Interactive Web Multimedia and Audio

This program is directed at interactive methods of Web production that include creation of audio for the Internet. Students will learn techniques and software to create animated and interactive Web sites and audio production for the Internet.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCMW/ R GCMW 101	Multimedia I	4
GCMW/ R GCMW 102	Web Page Layout I	4
GCMW 108	Web Motion Graphics I	4
GCMW 123	Audio for the Internet	4
GCMW 140	Web Graphics	4
GCMW 203	Web Multimedia	4
GCMW 208	Web Motion Graphics II	4
GCMW 229	Interactive Streaming Media	4
Electives (select one course)		
GCIP/ R GCIP 140	Digital Imaging/PhotoShop I	4
GCIP 141	Digital Imaging/PhotoShop II	4
GCIP 240	Digital Imaging/Photoshop III	4
GCMW 100	History of Multimedia	3
GCMW 104	Motion and Sound	4
GCMW 165	Digital Video Design	4
GCMW 202	Web Page Layout II	4
GCMW 204	Motion Graphics for Multimedia	4

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

GCMW 205	Digital Video for Multimedia	4
GCMW 220	Designing for Web Standards I	4
GCMW 221	Designing for Web Standards II	4
GCMW 228	Web Motion Graphics III	4
GCMW 236	Flash Game Design	4
MUS 180	Computer Music I	3
RTV 230	Digital Audio with Pro Tools	3
TOTAL UNITS		**35 - 36**

Internet

As the vast web of global and local information networks grow, several skills and forms of literacy are becoming essential for anyone who wants to obtain the full benefits of the Communications Age.

An individual's ability to capitalize on the opportunities offered by interactive communications requires mastery of these information and communication proveniences:

- **Navigational skills** - The ability to move smoothly among arrays of autonomous and globally interconnected information, contacts, forums, and discussion groups in order to locate and connect to information and expertise from relevant sources.
- **Information literacy** - An understanding of which information is most useful, relevant, and reliable, as well as the ability to analyze, distill, integrate, compose, and classify information to create knowledge.
- **Distribution skills** - Frameworks for rethinking methods of packaging, presenting, providing access, and disseminating information and knowledge in this new medium.
- **Communications literacy** - Integrating new forms of information, knowledge, and message development into evolving patterns of organizational and interpersonal communication.

This certificate offers preparation skills for the above areas of emphasis involving the Internet.

Emphasis in Graphic Communication

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
BUS 157	E-Commerce	3
or		
GCMW 120	Designing for the Social Web	4
CSWB 110/		
R CSIS 110	Web Site Development with XHTML	3
GCMW/		
R GCMW 102 or	Web Page Layout I	
GCMW 103	Interactive Publishing with PDFs	4
GCMW 108	Web Motion Graphics I	4
GCMW 140	Web Graphics	4
GCMW 202	Web Page Layout II	4
GCMW 217 or	Online Store Design I	
GCMW 229	Interactive Streaming Media	4
GCMW 220	Designing for Web Standards I	4
TOTAL UNITS		**30 - 31**

Internet - Emphasis in Business Education

See Business

Internet Publisher

Prepares students with specific skills necessary for entry-level employment in the field of Web design and production. Students will be able to design and produce simple Websites that have text, graphics, and multimedia.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
GCMW/		
R GCMW 102	Web Page Layout I	4
GCMW 140	Web Graphics	4
GCMW 203	Web Multimedia	4
GCMW 220	Designing for Web Standards I	4
TOTAL UNITS		**16**

New Media Compositing, Authoring and Distribution

This program is directed at alternative methods of digital video compilation and release. Students will learn techniques and software to compile and composite digital video for release on CD ROM, DVD, and the Internet.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
GCIP 240	Digital Imaging/PhotoShop III	4
GCMW/		
R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
GCMW 165	Digital Video Design	4
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
GCMW 206	Motion Graphics Production and Compositing	4
GCMW 229	Interactive Streaming Media	4
Electives (select one course)		
ARTD 220	Motion Design	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GC 101	History of Graphic Communications	3
GCIP/		
R GCIP 140	Digital Imaging/PhotoShop I	4
GCIP 141	Digital Imaging/PhotoShop II	4
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	4
GCMW/		
R GCMW 102	Web Page Layout I	4
GCMW 105	Web Page Layout with CMS	4
GCMW 108	Web Motion Graphics I	4
GCMW 123	Audio for the Internet	4
GCMW 202	Web page Layout II	4
GCMW 203	Web Multimedia	4
GCMW 208	Web Motion Graphics II	4
GCMW 220	Designing for Web Standards I	4
GCMW 221	Designing for Web Standards II	4
GCMW 228	Web Motion Graphics III	4
GCMW 236	Flash Game Design	4
GCIP 295	Directed Study in Graphic Communications	3
GCIP 296	Special Projects	3
RTV 170	Introduction to Video Editing	3
RTV 230	Digital Audio with Pro Tools	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television and Film	3
TOTAL UNITS		**35 - 36**

Video Game Artist

This certificate program introduces students to the video game industry, video game design, and the creation of both 2D and 3D artwork for video games.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSCI 160	Overview of the Video Game Industry	4
CSCI 161	Game Design	4
ARTI 246 or	Digital 3D Design and Modeling	
DT 180 or	3D Studio Max – Intro 3D Modeling/Animation	
DT 182	3D Studio Max – Adv 3D Modeling/Animation	3
ARTD 220 or	Motion Design	
ARTI 247 or	Digital 3D Design and Animation	
DT 184 or	Real Time 3D Technical/Game Animation	
GCMW 204	Motion Graphics for Multimedia	2,4
TOTAL UNITS		**13 - 15**

Video Game Artist Certificate of Proficiency is also listed under Computer Science and Information Systems - Computer Science.

Web Data Base Design

The Web site developer must present the complexity and volume of information so that the site's visitor may make decisions quickly and accurately. Data-driven dynamic pages are also interactive, allowing the visitor to choose the information that they would like to see. The increasingly sophisticated site development for online stores and multimedia, for example, requires a range of diverse and multifaceted skills from database design, computer graphics, Web design, site design and architecture, graphical user interface design, to cross-platform competence. The World Wide Web, as a graphical user interface, offers new career opportunities to graphic designers who have the skills to maintain sites that contain large amounts of data that changes frequently. The ability to package, share, and manage data to consumers across the Internet is in high demand. The Web Data Base Design certificate prepares for employment in dynamic business environments that need large-scale as well as smaller sites.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCMW 202	Web Page Layout II	4
GCMW 217 or	Online Store Design I	
GCMW 218	Online Store Design II	4
GCMW 226	Web Data Base Design II	4
Electives (Select at least one course, minimum 4 units total)		
BUS 180	Access for Business	1
CSDB 220	SQL Server Programming	3
CSWB 210	Active Server Pages	3
GCIP/		
GCMW 290	Copyright for Graphic Designers/Web Developers	1
GCIP/		
GCMW 291	Contracts for Graphic Designers/Web Developers	1
GCIP/		
GCMW 292	Legal Issues for Graphic Designers and Web Developers	3
GCMW 105	Web Page Layout with CMS	4
GCMW 120	Designing for the Social Web	4
GCMW 154	Preparing Web Graphics	1
GCMW 164	Interactive Web Graphics	1
GCMW 216	Web Data Base Design I	4
GCMW 220	Designing for Web Standards I	4
TOTAL UNITS		**19**

Web Graphics

Designed to meet the increasing needs of organizations and businesses that publish on the World Wide Web. Specific skills for the Web Graphics certificate include typography, visual acuity, graphic design, Web color, and file formats. The certificate prepares students to gain competence with the basic applications used in industry for digital graphics and Web publishing. Teamwork, problem solving, workflow and production process, communication and creativity are core competencies. Upon completion of the certificate, the student may find a job as a Web production artist, graphic production assistant, or graphic designer.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCMW/		
R GCMW 102	Web Page Layout I	4
or		
GCMW 108	Web Motion Graphics I	4
GCMW 140	Web Graphics	4
GCMW 202	Web Page Layout II	4
GCMW 203	Web Multimedia	4
GCMW 232	Web Accessibility Design	1
TOTAL UNITS		**17**

Web Motion Graphics

Prepares students with specific skills necessary for employment in the field of Interactive Web multimedia design and production. A high level of skill and time are needed to create professional motion graphics. Specific skills include an attention to detail, knowledge of various illustration and animation software, technical and analytical problem solving, and visual acuity. Teamwork, creativity, communication, understanding of the production process and interactivity are core competencies. Typical job opportunities are in entertainment, business, corporate, and educational industries.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCMW/		
R GCMW 102	Web Page Layout I	4
GCMW 203	Web Multimedia	4
GCMW 208	Web Motion Graphics II	4
GCMW 229	Interactive Streaming Media	4
TOTAL UNITS		**16**

COURSE OFFERINGS

GCMW 100 History of Multimedia (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Multimedia embodies the convergence of technology with content to combine text, audio, photos, art, graphics, animation, and branching and linear video. It facilitates new ways of communicating, learning, entertaining, and self-expression; multimedia is reshaping the way we do business, practice medicine, and conduct scientific research. This course traces the emergence and development of "multimedia" as a digital technology medium within historical, global, social, cultural and aesthetic contexts.

GCMW 101 Multimedia I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as R GCMW 101; may be taken 4 times; maximum of 4 completions in any combination of GCMW/R GCMW 101, GCMW 201*
Transfer acceptability: *CSU*
Introduction to multimedia authoring software combining text, graphics, sound, animation, video clips and user interface to produce effective visual presentations.

GCMW 102 Web Page Layout I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as R GCMW 102; may be taken 4 times; maximum of 4 completions in any combination of GCMW/R GCMW 102, GCMW 102A, 102B, 202*
Transfer acceptability: *CSU*
A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, and structured page design for effective Internet communications.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

GCMW 102A Web Page Layout IA (2)
1 hour lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 102, 102A, 102B, 202*
Transfer acceptability: *CSU*
A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, graphics preparation and structured page design for effective Internet communications. The course is designed to introduce students to Web production and site maintenance; special projects facilitate the needs of more advanced students. (For beginning and intermediate levels).

GCMW 102B Web Page Layout IB (2)
1 hour lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 102, 102A, 102B, 202*
Transfer acceptability: *CSU*
A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, graphics preparation and structured page design for effective Internet communications. The course is designed to introduce students to Web production and site maintenance; special projects facilitate the needs of more advanced students. (For beginning and intermediate levels).

GCMW 103 Interactive Publishing with PDF's (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This hands-on course looks at a comprehensive range of print, Web, and multimedia features in Adobe Acrobat for creating and distributing electronic documents reliably and securely. Topics and projects include e-books, forms, editing, prepess, accessibilty, capture, and a variety of methods to convert and repurpose documents.

GCMW 104 Motion and Sound (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times*
Introduction to combining motion with sound for multimedia. Includes an overview of motion graphics and sound design for the multimedia industry. Course will consider current trends in motion graphics and soundtracks for film titles, television programs and advertising, interactive media and experimental works. This is a hands-on course using digital tools for creating and editing audio and motion graphics.

GCMW 105 Web Page Layout with CMS (4)
3 hours lecture- 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Web page layout and design with a content management system (CMS) and "what you see is what you get" (wysiwyg) software. The CMS keeps track of the content such as text, photos, music, video, and documents. Learners will design sites with articles, blogs, links, news feeds, search components, and breadcrumbs. Designed for the non-technical user, and knowledge of programming and/or coding is not needed.

GCMW 108 Web Motion Graphics I (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 108, 208, 228*
Transfer acceptability: *CSU*
Introduction of core concepts: vectors, the Stage, Scenes, Timelines, Layers, Keyframes, Shapes, Symbols (Graphic, Button, Movie Clip), Tweening, native drawing tools and external editors, frame-by-frame animation, Actions and Actionscript. Development of basic skills in web motion graphics. Exporting and embedding SWF files in Web pages. Adobe Flash will be used to create dynamic visual presentations with auditory components to communicate more effectively on the Web.

GCMW 120 Designing for the Social Web (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *GCIP/R GCIP 152 and/or GCIP/R GCIP 140*
Transfer acceptability: *CSU*
Focuses on the understanding of graphical user interface design for the social Web environment (Web 2.0), such as wikis, blogs, and social networks. Covers fundamental 'Social Web' principles in order to develop designs from a user perspective. Covers Web technologies, market research, usability and human factors, wireframe and sitemap documentation, Web design, cross browser functionality, Web typography, and search engine marketability. The development of marketable, original, and creative problem solving solutions will also be examined with an emphasis on Web branding. In this hands-on class, students will participate in social networks such as wikis and blogs.

GCMW 123 Audio for the Internet (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Introduction to sound and audio on the World Wide Web. Topics covered include digitizing audio for the internet, audio formats, optimization techniques and bandwidth considerations. This is a hands-on class using audio editing, html, and graphics editing software. Upon completion of course, student will create and publish a website incorporating audio on the internet.

GCMW 140 Web Graphics (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
The Graphical User Interface is a major component of Web design and production; human factors and usability are major factors in designing for the Web. This course includes industry standard techniques for Web graphics and other display media. It covers the mechanics for image production as well as methodologies for asset management, file compression, scanning, animation, image maps, slices, interactive rollovers, navigation, integration with multiple applications, layouts for screens, GIF and JPEG file formats, image resolution, and color depth. The implementation of planning models to design comprehensives for Website development is a major component in this hands-on course.

GCMW 154 Preparing Web Graphics (1)
3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 154, 164*
Transfer acceptability: *CSU*
Hands-on course to produce optimized graphics for the Web with applications such as Adobe's Fireworks, cross-platform production environments: edit bitmap and vector graphics; format text; select Web-safe color; simple animation; generate HTML and JavaScript automatically; integrate with other Web production applications.

GCMW 164 Interactive Web Graphics (1)
3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 154, 164*
Transfer acceptability: *CSU*
Hands-on course to produce optimized graphics for the Web with applications such as Adobe's Fireworks, cross-platform production environments: design complex buttons and navigation bars, image maps, slicing complex graphics, animation, batch processing, and scripting; generate HTML and JavaScript automatically; integrate with other Web Production applications.

GCMW 165 Digital Video Design (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Explores project planning, setup, editing and output of Digital Video. Incorporates sound, graphics, 2D animation and text for full-screen, web, CD-ROM, or DVD playback. Projects and assignments utilize transitions, superimposing, transparency and keying along with video, audio and other special effects.

GCMW 197A Topics in Internet (1-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Graphic Communications topics in Internet. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCMW 197B Topics in Multimedia (1-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Graphic Communications topics in multimedia. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCMW 201 Multimedia II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 101*
Recommended preparation: *GCMW 165 or GCMW 205*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW/R GCMW 101, GCMW 201*
Transfer acceptability: *CSU*
Strategies and techniques for designing successful user multimedia interface. There will be emphasis on usability and design issues, incorporation of underlying metaphors, screen design, and navigational styles. Authoring systems, video compositing, digital imaging and audio editing applications will be explored.

GCMW 202 Web Page Layout II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102 and GCMW 140*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 102, 102A, 102B, 202*
Transfer acceptability: *CSU*
Multimedia web site design and production using advanced WYSIWYG editor that permits editing hypertext markup language (HTML) as well as designing to current standards of CSS and interactivity. Includes mechanics for site production as well as methodologies for project planning and management.

GCMW 203 Web Multimedia (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102*
Recommended preparation: *GCIP/R GCIP 140*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Open discussion of current technologies, social issues, and design theory directly related to multimedia for the Internet and the World Wide Web. Experimental and practical application of multimedia in graphical user interface and user navigation design via assigned class projects.

GCMW 204 Motion Graphics for Multimedia (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 165*
Recommended preparation: *GCIP/R GCIP 140*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Explores project planning, setup, execution, and output of motion-based graphics. Incorporates exploration and integration of sound, graphics, digital video, 2-D animation, and text for multimedia.

GCMW 205 Digital Video for Multimedia (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 165 and 204*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Exploration of concepts, design and development of digital video production and editing skills as they relate to CD Rom/DVD, Internet, and Digital Video Tape.

GCMW 206 Motion Graphics Production and Compositing (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 204 and 205*
Note: *May be taken 4 times*
This course will be a "cap course" in which the student combines skills learned in multiple disciplines. For example the student will combine video skills learned in Graphic Communications and RTV with skills learned in ART or CAD by compositing a video that incorporates 3D rendered characters with live video footage. The student will complete the work by preparing it for publication on tape, DVD, digital storage device or web based formats.

GCMW 208 Web Motion Graphics II (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *GCMW 108*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 108,208, 228*
Transfer acceptability: *CSU*
Development of intermediate skills in web motion graphics: introduction of object-oriented design as applied to dynamic animation presentations; communication between graphical elements and instances; use of scripting and variables; creation of sound objects; use of components to improve efficiency; using Dynamic Text and ActionScript. Integrating digital audio and video with Flash presentations. Macromedia's Flash will be used to create dynamic visual presentations with audio and video assets to communicate more effectively on the Web.

GCMW 214 Designing Data Bases Visually (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102 and GCMW 202*
Recommended preparation: *GCMW 108*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Organize and track people, projects, images and information in visually designed cross-platform relational data bases using graphic tools via wizards, templates and custom capabilities. Lay out powerful forms for the end user implementing graphical user interface standards. Publish for print and Web and intranet. Share and integrate secure data with workgroups across networks or other applications. Course is hands-on and will feature such applications as FileMaker Pro.

GCMW 216 Web Data Base Design I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102*
Transfer acceptability: *CSU*
Hands-on course for creating Web pages that draw dynamic content from databases. Design and create a simple database for use on the Web. Create Web forms that add, modify or delete records from a database. Plan and implement a Web application using modern Web design tools such as Dreamweaver.

GCMW 217 Online Store Design I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102 and GCMW 202*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 217, 218*
Transfer acceptability: *CSU*
Design of interactive commercial web sites with emphasis on online shopping cart and database creation and management. Hands-on production of an online store. Perspective through web store case studies and models. Evaluation of various e-commerce solutions, security/privacy and payment options, site promotion/advertising, analysis tools and trends in appropriate web graphics, multimedia and software. Project management methods for e-commerce site life cycle.

GCMW 218 Online Store Design II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102 and GCMW 202*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 217, 218*
Transfer acceptability: *CSU*
Hands-on design and production of interactive commercial Web sites with emphasis on complex data-driven online shopping carts. Perspective through Web store case studies and models. Emphasis on forms production to send and

dynamically display data for catalog, inventory, customers, etc. Produce components such as guest books, counters, e-mail, etc. to enhance an e-commerce site. Project Management methods for e-commerce site life cycle.

GCMW 220 Designing for Web Standards I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 202*
Recommended preparation: *GCMW/R GCMW 102*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 220, 221*
Transfer acceptability: *CSU*
Web site design and production using the current standards of the hypertext markup language (HTML) and other advanced tools (multimedia applications and Java Script, Java, etc.). Use of HTML editors for site authoring and mechanics as well as methodologies for project planning and management.

GCMW 221 Designing for Web Standards II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 202 and 220*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 220, 221*
Transfer acceptability: *CSU*
Current standards of Web design set forth by the W3C mandate changes in the way Web designers create their Web pages. This course teaches the use of XHTML and CSS to implement Web typography and advanced Web page layouts that comply with current Web standards. Use of modern Web page layout and design tools such as Dreamweaver to aid your work flow will also be taught.

GCMW 226 Web Data Base Design II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 202 and 216*
Transfer acceptability: *CSU*
Modern Web sites frequently need to interact with Web database servers in order to manage content, take orders or reservations, receive information, and interact with their visitors. This is a hands-on course for creating Web pages with a modern Web design tool such as Dreamweaver that draw dynamic content from remote database server such as MySQL. Learners will design and manage a remote database on a remote database server using popular database management tools.

GCMW 228 Web Motion Graphics III (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 108*
Recommended preparation: *GCMW 208*
Note: *May be taken 4 times; maximum of 4 completions in any combination of GCMW 108,208, 228*
Transfer acceptability: *CSU*
Dynamic Web content - explore the creation of dynamic Flash presentations. Skinnable components and presentations. Incorporating server-side technologies: Flash as a front-end to a database; using Flash Communications Server and ColdFusion MX to enable rich internet application capabilities. Production of audio and digital video for Flash; integration of non-embedded media.

GCMW 229 Interactive Streaming Media (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW/R GCMW 102*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Explores the various aspects of interactive streaming for the web. Combines lecture, hands on lessons, exercises, projects, and group work to build skills in the interactive streaming process. Students evaluate and select streaming methods, develop and author various media, and deliver the content in appropriate formats. Particular attention is given to design, usability, and applicable uses of interactive streaming media on the web.

GCMW 232 Web Accessibility Design (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 202 and 220*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Evaluate screen and Web design techniques to maximize accessibility by people with physical disabilities. Implement tools to convert documents to accessible formats. Produce sites that are accessible. Use various resources from the World Wide Web Consortium and publishers such as checklists, examples of code, conversion tools, test tools, etc. Review legal requirements (Americans with Disabilities Act and the Web Accessibility Initiative) for various sectors to provide fully accessible Web sites.

GCMW 236 Flash Game Design (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 108 and 208*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
A hands-on introduction to game design using Flash 5. ActionScript for game development, screen layout, game interfaces, and structured game layout for effective game design. The course is designed to introduce students to Flash game design and concepts. Projects apply ActionScript and game layout principles. (For beginning and intermediate levels).

GCMW 290 Copyright for Graphic Designers & Web Developers (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in R GCIP 149/GCIP 149 and/or GCMW 102/R GCMW 102*
Note: *Cross listed as GCIP 290; may be taken 4 times*
Copyright is an old and well codified area of law. The statutes and cases, however, have created complexities that are sometimes difficult to understand. This course covers the basics of copyright law, copyright registration, methods of informing viewers of copyright protections and liability, and the ways in which a graphic designer may enforce copyright. The damages and remedies of injunction and compensation are included. This course is not intended to offer legal advice. Consult with competent legal professionals for any questions regarding specific copyright issues.

GCMW 291 Contracts for Graphic Designers & Web Developers (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 149 and/or GCMW/R GCMW 102*
Note: *Cross listed as GCIP 291; may be taken 4 times*
Graphic designers, whether employed by business or freelance, need to understand contract terms, negotiation, conditions, and the statutory and case law uniquely applicable to graphic design. Understanding the terms of a contract is essential to protecting the rights to use of work product and obtaining compensation. Failing to do so usually results in abuse of rights and non-compensation. This course is not intended to offer legal advice. Consult with competent legal professionals for any questions regarding specific contractual issues.

GCMW 292 Legal Issues for Graphic Designers and Web Developers (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 149 and/or GCMW/R GCMW 102*
Note: *Cross listed as GCIP 292*
This course will cover most legal issues that confront graphic designers and web developers in the day-to-day operation of the businesses. Specific legal issues will include business formation, contracts, copyright, licensing, deep linking, click wrap agreements, and the risks and benefits of self employment versus employment by a business. This course is not intended to offer legal advice. Consult with competent legal professionals for any questions regarding specific legal issues.

GCMW 295 Directed Study in Graphic Communications (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Note: *Cross listed as GCIP 295; may be taken 4 times*
Transfer acceptability: *CSU*

Independent study for students who have demonstrated skills and/or proficiencies in Graphic Communications subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

GCMW 296 Special Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Recommended preparation: *Advanced coursework or job-related experience*
Note: *Cross listed as GCIP 296; may be taken 4 times*
Transfer acceptability: *CSU*
Independent work on a specified sustained project which does not fit into the context of regularly scheduled classes. Students work from a contract agreed upon by the student and the instructor.

Health (HE)

Contact the Physical Education Department for further information.
(760) 744-1150, ext. 2462
Office: O-10

COURSE OFFERINGS

HE 100 Health Education and Fitness Dynamics (3)
3 hours lecture
Corequisite: *HE 100L*
Transfer acceptability: *CSU; UC*
Individual well being will be developed through the study of the emotional, spiritual, intellectual, social, and physical qualities of health.

HE 100L Health Performance Lab (1,1.5,2)
3, 4.5, or 6 hours laboratory
Corequisite: *HE 100*
Transfer acceptability: *CSU; UC*
Fitness lab course designed to develop and encourage positive attitude and habits with regards to Health Education and fitness dynamics. Lab activity will primarily utilize exercise equipment as it relates to cardiovascular efficiency, body composition, muscular strength and endurance and flexibility. An individual fitness profile will be established, including pre-post testing, to determine each students' fitness accomplishments.

HE 165 Fundamentals of Nutrition (3)
3 hours lecture
Note: *Cross listed as FCS 165*
Transfer acceptability: *CSU; UC – FCS 165, FCS 185, BIOL 185, HE 165 combined: maximum credit, one course*
The study of how food nourishes the body. Investigation of diet fads and fallacies. Eating for fitness, and planning meals for optimum health throughout the life cycle.

HE 197 Current Topics in Health (1, 2, 3)
1, 2, or 3 hours lecture
Note: *May be taken 4 times with different subject matter*
Transfer acceptability: *CSU*
Current issues in health education meeting student and community educational needs dealing with the social, mental, and physical aspects of personal health. Course title will designate subject covered.

Health Occupations

See Emergency Medical Education, Dental Assisting, Medical Assisting, and Nursing Education

History (HIST)

Contact the Economics, History and Political Science Department for further information.
(760) 744-1150, ext. 2412
Office: P-17K

COURSE OFFERINGS

HIST 101 History of the United States Through Reconstruction (3)
3 hours lecture
Note: *This course plus History 102 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC – HIST 101 and 102 or AS 101 and 102 combined: maximum credit, one pair*
Political, economic, social, and cultural development of the American people through Reconstruction with particular emphasis on the colonial period; the Revolution; constitutional development; westward expansion with emphasis on California and frontier influences; emergence of sectionalism; the Civil War and Reconstruction.

HIST 102 History of the United States Since Reconstruction (3)
3 hours lecture
Note: *This course plus History 101 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC – HIST 101 and 102 or AS 101 and 102 combined: maximum credit, one pair*
Political, economic, social, and cultural developments of the American people since Reconstruction. Emphasis will be on the westward and farm movements, industrial development, twentieth century reform movements, the United States as a world power, and civil rights. Special consideration will be given to the development of California state and local government.

HIST 105 History of Western Civilization Through the Reformation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of ancient civilizations, Greece, Rome and medieval Europe, with emphasis on the heritage, ideas, attitudes, and institutions basic to Western Civilization.

HIST 106 History of Western Civilization Since the Reformation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Emergence of modern Europe, expansion of European power and influences; emphasis on cultural and intellectual trends which affect Western civilization in the Twenty-first Century.

HIST 107 World History to 1650 (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The growth of civilizations and the interrelationships of the peoples of Europe, Asia, Africa, and America to 1650.

HIST 108 World History Since 1650 (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The development of the civilizations and the interrelationships of the peoples of Europe, Asia, Africa, and America since 1650.

HIST 121 History of California (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The history of California from the origins of the native peoples to the present. Course focuses on the events and people who shaped the development of California with an emphasis on the many diverse cultural elements (native peoples, Hispanics, Anglo-Americans, Asians, African-Americans, Pacific Islanders, and women) involved.

HIST 130 Women in United States History (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the changing role, status, and contributions of women in the United States from the colonial period to the present. Their social, economic, political, and religious positions in American society are examined.

HIST 140 History of the Americas Through 1800 (3)
3 hours lecture
Note: *This course plus HIST 141 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
Surveys the evolution of the political, economic, and social institutions of the societies of Western Hemisphere from the 14th through the 18th centuries. Examines major pre Columbian Indian Cultures, European exploration and colonization, life in the colonial Americas, and the achievement of independence by the United States. Latin America, Canada, and the United States are studied from a comparative perspective. Included is consideration of the Constitution of the United States.

HIST 141 History of the Americas Since 1800 (3)
3 hours lecture
Note: *This course plus HIST 140 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
History of the American nations in the 19th and 20th centuries with emphasis on the Latin American wars of independence, inter American relations, the foreign policy of the United States and its relation to Latin America, Canada's relations with other nations of the hemisphere, and the transition of Latin American society in the 20th century.

HIST 150 History of Latin America To 1824 (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the historical evolution of the peoples and states of Latin America with special attention to the indigenous states and empires of the Americas, their conquest by the Iberian nations of Europe, the creation of multi racial colonial empires, and the growth of creole nationalism which lead to the overthrow of the Iberian empires at the beginning of the 19th century.

HIST 151 History of Latin America from Independence to the Present (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the republics of Latin America since independence that concentrates on the political evolution of these nations and the social and economic institutions that characterize the region. Special attention will be given to the contrast between the urban and rural cultures and economies, as well as the political and economic relations of the region with the world and the United States in particular.

HIST 152 The World War II Generation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Survey of the lives and experiences of the World War II Generation as they relate to four specific areas--the war in both the Pacific and in Europe, the Home Front, and American prisoners of war. Once each area is studied, students will have the opportunity to contrast the knowledge gained through their readings and classroom discussions with the reality of stories that focus on local representatives of the WW II Generation. Whenever possible, this will be done through panel discussion nights when community members of this generation visit the class and engage in a dialogue with students and each other on their war-time experiences.

HIST 197 History Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in History. See Class Schedule for specific topic offered. Course title will designate subject covered.

HIST 295 Directed Study in History (1, 2, 3)
3, 6, 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: May be taken 4 times
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study for students who have demonstrated a proficiency in history subjects and have the initiative to work independently on projects or research that does not fit into the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Home Economics

See Family and Consumer Sciences, Fashion, Interior Design, Child Development and Home Economics Education (Noncredit)

Humanities (HUM)

Contact the English Department for further information.
(760) 744-1150, ext. 2392
Office: P-2

COURSE OFFERINGS

HUM 100 Introduction to Humanities I (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Examines significant movements and developments in literature and other arts in Western culture from classical times to the late Middle Ages. Emphasis is on ideas and their realization in works of art.

HUM 101 Introduction to Humanities II (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A general survey of the fine arts in the Western world. Arranged chronologically rather than thematically, the course material includes consideration of the major achievements of Western culture from the Renaissance until the present.

HUM 197 Humanities Topics (1-4)
Units awarded in topics courses are dependent upon the number of lecture hours required of the student. Refer to Class Schedule.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Humanities. See class schedule for specific topic covered. Course title will designate subject covered.

Industrial Technology (IT)

See Cabinet and Furniture Technology, Drafting Technology, and Electronics and Computer Hardware Technology for additional courses

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-1

COURSE OFFERINGS

IT 108 Technical Mathematics (3)
3 hours lecture
Note: *Cross listed as WELD 108*
Methods and experience in defining and solving mathematical problems in industrial technology. Special emphasis will be given to the application of these basic processes to the solution of the unique mathematical problems encountered in the areas of architecture, automotive, drafting, machine, welding, and woodworking technology.

IT 197 Industrial Technology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*

Topics in Industrial Technology. See class schedule for specific topic covered. Course title will designate subject covered.

Information Technology

See CSIS - Information Technology

Insurance (INS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Commercial and Personal Insurance Services

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Commercial and Personal Insurance Services

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Insurance Services

PROGRAM OF STUDY

Commercial and Personal Insurance Services

This program is designed to prepare students for entry into the insurance industry and to provide further training for individuals who have recently entered the insurance industry.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Laboratory	1
BUS 100	Introduction to Business	3
BUS 110	Business Mathematics	3
BUS 115	Business Law	3
BUS 170	Word for Business – Basic	1
BUS 176	Excel Intermediate	1
BUS 180	Access for Business	1
BUS 205	Business Writing	3
INS 100	Introduction to Insurance	1
INS 110	Principles of Property and Liability Insurance	3
INS 115	Personal Insurance	3
INS 120	Commercial Insurance	3
INS 125	Insurance Codes and Ethics	1
CE 100	Cooperative Education	1-4
TOTAL UNITS		**32 - 35**

The program parallels the one developed by the Business Education Statewide Advisory Committee for California Community Colleges in 2004 and 2005.

Insurance Services

Provides a program to prepare the student for an entry-level insurance position, or allows an individual with a four-year degree or a person currently in the insurance industry to acquire further training to specialize and/or advance his/her career within the field.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
INS 100	Introduction to Insurance	1
INS 110	Principles of Property and Liability Insurance	3
INS 115	Personal Insurance	3
INS 120	Commercial Insurance	3
INS 125	Insurance Code and Ethics	1
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**12 - 15**

COURSE OFFERINGS

INS 100 Introduction to Insurance (1)
1 hour lecture
The course is designed to provide a basic foundation in the modern property/casualty insurance system. Students will learn: how insurance products and services are distributed to the consumer; how the insurance company departments function; how reinsurance is used to create an insurance company and insure large property and high liability values/limits. It also provides students an understanding of civil laws or tort and contracts; a review of the basic commercial and personal Insurance Service Office (ISO) insurance contracts; and details the importance of the risk management process.

INS 110 Principles of Property and Liability Insurance (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in INS 100*
The study of this course is divided into three segments: Fundamentals of Insurance -information on what insurance is, who provides it, how it is regulated, and how the financial performance of insurers is measured. Insurance Operations - describes the functions of marketing, underwriting, and claims. Insurance contracts, loss exposure, and risk management - discusses insurance as a contract, introduces both property and liability loss exposures and policy provisions and provides a basic discussion of risk management as a means of managing loss exposures.

INS 115 Personal Insurance (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in INS 100*
Introduction to basic information regarding personal insurance, including property and liability loss exposures and personal risk management. The course includes information about automobile insurance; homeowners insurance; other residential insurance, such as fire and earthquake insurance; marine insurance; other personal property and liability insurance; financial planning; life insurance; and health insurance.

INS 120 Commercial Insurance (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in INS 100*
The study of basic information regarding the entire area of commercial insurance. The concepts covered include commercial property insurance; business income insurance; commercial crime insurance; equipment breakdown insurance; inland and ocean marine insurance; commercial general liability insurance; commercial automobile insurance; business owners policies and farm insurance; workers compensation and employers liability insurance; and other miscellaneous commercial coverages.

INS 125 Insurance Code and Ethics (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in INS 100*
The study of Article II, 4. of the University Risk Management & Insurance Association, which covers a statement of ethics and standards of professional conduct for member representatives. The principles for the development of a systems approach for making ethical business decisions is reviewed. Such a methodical process provides for selecting alternatives that are responsible, practical, and defensible.

Interior Design (ID)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: ST-49

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Interior Design

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Interior Design

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Students should be aware that not all Interior Design courses are offered every semester. See Class Schedule or Department Chairperson for additional information.

PROGRAMS OF STUDY

Interior Design – Certificate of Achievement

Coordinated by educators and professional interior designers, this certificate of achievement offers an interdisciplinary approach to fundamental design, space planning, design analysis, and materials selection and specifications relating to residential and commercial spaces.

Prepares students to pursue employment in the interior design field with emphasis on retail furnishings and merchandising.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
First Semester		
ID 100	Interior Design	3
ID 105	Materials and Resources	3
BUS 125	Business English	3
Second Semester		
ID 110	Professional Practices in Interior Design	3
ID 135	Fabrics for Designers	3
ID 150	Computer Aided Drafting for Designers (CADD)	4
CE 150	Cooperative Education Internship	2-3
TOTAL UNITS		**21 - 22**

Recommended Electives: ID 115, 120, 130, 145, 198

Interior Design - A.A. Degree Major

Coordinated by educators and professional interior designers, this A.A. degree major offers an interdisciplinary approach to fundamental design, space planning, design analysis, and materials selection and specifications relating to residential and commercial spaces.

A.A. DEGREE MAJOR

Program Requirements		**Units**
First Semester		
ID 100	Interior Design	3
ID 105	Materials and Resources	3
ID 115	History of Decorative Arts I	3
ARCH 105	Basic Architectural Drafting	3
Second Semester		
ID 110	Professional Practices in Interior Design	3
ID 120	History of Decorative Arts II	3
ID 125	Presentation Methods in Interior Design I	4
ID 135	Fabrics for Designers	3
ID 150	Computer Aided Drafting for Designers (CADD)	4
Third/Fourth Semesters		
ID 130	Light and Color	3
ID 140	Residential Interior Design	3
ID 141	Commercial Interior Design	3
ID 170	Space Planning	3
CE 150	Cooperative Education Internship	2-3
TOTAL UNITS		**43 - 44**

Recommended Electives: ART 100, 102, BUS 140, CI 100, ID 145, 151

COURSE OFFERINGS

ID 100 Interior Design (3)
3 hours lecture
Transfer acceptability: *CSU*
The study of functional and aesthetic interior design principles used to create residential interiors. Beginning drafting, space planning, the use of color and the application of these skills in design are stressed. A survey of major twentieth-century architects and designers and their influence on design and lifestyle is analyzed. Instruction is given in furniture arrangement and selection, materials selection, lighting, and the effects of environmental design on human behavior.

ID 105 Materials and Processes in Interior Design (3)
3 hours lecture
Transfer acceptability: *CSU*
Selection, care, and use of materials used in residential and commercial interior design.

ID 110 Professional Practices in Interior Design (3)
3 hours lecture
Transfer acceptability: *CSU*
Specific business and professional practices as they apply to residential and commercial interior design. Career opportunities, personal qualifications, and skills required for employment are also presented.

ID 115 History of Decorative Arts I (3)
3 hours lecture
Transfer acceptability: *CSU*
Foundation of architecture and furniture styles of the world from antiquity to the Empire period. Covers social, cultural, styles and periods. Description of dominant influences and characteristics of historical interiors, furniture, ornamental design, textiles, and the decorative arts.

ID 120 History of Decorative Arts II (3)
3 hours lecture
Transfer acceptability: *CSU*
The historic relationship between the decorative arts, architecture, and furniture styles of the world from the 19th century to the present. Includes Asian influences and art periods which have affected these styles. Emphasis is placed on style development as it relates to political, economic, and social forces.

ID 125 Presentation Methods in Interior Design I (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 2 times.*
Transfer acceptability: *CSU*
Form-space comprehension in relationship to furniture placement through residential and commercial design drawing exercises, including one- and two-point perspective problems.

ID 130 Light and Color (3)
3 hours lecture
Note: *May be taken 2 times.*
Transfer acceptability: *CSU*
Principles and application of light and its effect on color and the design process in interiors, architecture, and visual merchandising. Emphasizes lighting needs, light sources, light calculations, and energy conservation.

ID 135 Fabrics for Designers (3)
3 hours lecture
Transfer acceptability: *CSU*
Selection, use and care of fabrics used in residential and commercial interiors. Emphasis on designer selection and specification of fabrics for upholstering furniture, window treatments, floor coverings, and accessories. Includes survey and selection of historic fabrics in interiors.

ID 140 Residential Interior Design (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ID 100*
Recommended preparation: *ID 125*

Transfer acceptability: *CSU*
Development of residential interiors from design concept to installation. Includes materials specifications and design sources. Emphasizes budget analysis, architectural drawings, furniture, and lighting plans.

ID 141 Commercial Interior Design (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ID 100 and ARCH 105*
Transfer acceptability: *CSU*
Development of non residential spaces from design concept to installation. Includes health care facilities and open office interiors. Emphasizes client analysis, space planning, materials specifications, architectural drawings, lighting plans, and budget analysis.

ID 145 Kitchen Design (3)
3 hours lecture
Transfer acceptability: *CSU*
Focuses on the principles and procedures involved in designing the kitchen for the most efficient residential and commercial use. Concentrates on the major aspects of planning the kitchen with special consideration of selection and location of equipment; arrangement of work and storage spaces; standards for appliances; health, safety and human anatomy; San Diego Building Codes and Minimum Property Standards; detailed floor plan, working drawings, and cost estimates for labor and material.

ID 150 Computer Aided Drafting for Designers (CADD) (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 2 times.*
Transfer acceptability: *CSU*
Introduction to computer aided drafting for interior designers, to include two and some three-dimensional drawing, blocks, design tools, rendering, barrier free design, and architectural floor plan layouts.

ID 151 Advanced Computer Aided Drafting for Designers (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Advanced applications and topics include prototype drawings, blocks and using specific libraries, isometric illustration, presentation slide shows, basic and advanced 3 D, and external references. Meets the current needs of the professional working designer.

ID 160 Interior Illustration (3)
3 hours lecture
Note: *May be taken 2 times.*
Recommended preparation: *ID 100*
Transfer acceptability: *CSU*
Application of the methods, techniques, and tools used for illustrating interior spaces and products.

ID 165 Interior Design Laboratory (1)
3 hours laboratory
Note: *Pass/No Pass grading only; may be taken 4 times*
Transfer acceptability: *CSU*
Enhancement of skills by supervised practice and active participatory experience in individual study. Content to be determined by the need of the student in agreement with and under observation and direction of the instructor.

ID 170 Space Planning (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ID 100*
Transfer acceptability: *CSU*
The application of programming, theory, and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized.

ID 195 Field Studies in Design (2)
4 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Tours various locations of the design industry to examine processes of design in furnishings, wall coverings, and textiles. Visits to wholesale showrooms, museums, and places of historic or architectural interest that influence the interior design market.

ID 197 Interior Design Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Interior Design. See Class Schedule for specific topic offered. Course title will designate subject covered.

ID 198 Skills in Quick Sketch (.5)
1 hour lecture/laboratory
Instruction in a practical rough drawing skill, and rapid visualization techniques used to represent concept interiors. Emphasis is on simplified mechanical and freehand systems of drawing. On-site applications and quick visual reproductions for interior or architectural modeling will be emphasized.

ID 295 Directed Study in Interior Design (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in Interior Design subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

International Business (IBUS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• International Business

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• International Business

PROGRAM OF STUDY

International Business

This program is designed to prepare individuals for a career in international business and/or management.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Laboratory	1
BUS 100	Introduction to Business	3
BUS 110	Business Mathematics	3
BUS 155	Marketing	3
BUS 205	Business Writing	3
IBUS 100	Intro to Int'l Business Mgmt	3
IBUS 105	International Marketing	3
IBUS 110	Cultural Environment/Int'l Business	3
IBUS 115	International Banking and Finance	3
IBUS 120	Essential/Import/Export Procedures	3
CE 100	Cooperative Education	2, 3, 4
TOTAL UNITS		**34 - 36**

Recommended Electives: ANTH 105; ECON 110; GEOG 105; PHIL 110; POSC 110

COURSE OFFERINGS

IBUS 100 Introduction to International Business and Management (3)
3 hours lecture
Recommended preparation: *BUS 100*
Transfer acceptability: *CSU*
Surveys the international dimension of business including trade, financial, economic, cultural framework, foreign investment patterns, and international managerial problems and policies at the corporate level. Also covers the role of the international manager with regard to entering foreign markets and supervising operations in existing markets, and the pros and cons of protectionism.

IBUS 105 International Marketing (3)
3 hours lecture
Recommended preparation: *IBUS 100*
Transfer acceptability: *CSU*
Surveys international organizations' basic elements for developing markets. Analyzes the market design and the techniques necessary to develop business within selected regions of the world. Discusses the impact due to differences in customs, languages, attitudes, and culture.

IBUS 110 The Cultural Environment of International Business (3)
3 hours lecture
Recommended preparation: *IBUS 100*
Transfer acceptability: *CSU*
Focuses on the cultural environment of international business affecting the conduct of four regions in the Pacific Rim: Canada, Asia, Latin America, and Russia. Students examine the nature and evolution of culture, language, education, religion, and values as they apply to business situations. Examines the differences surrounding political and managerial practices in selected societies.

IBUS 115 International Banking and Finance (3)
3 hours lecture
Recommended preparation: *IBUS 100*
Transfer acceptability: *CSU*
Surveys international organizations' basic elements for developing markets. Analyzes the market design and the techniques necessary to develop business within selected regions of the world. Discusses the impact due to differences in customs, languages, attitudes, and culture.

IBUS 120 Essentials of Import/Export Procedures (3)
3 hours lecture
Recommended preparation: *IBUS 100*
Transfer acceptability: *CSU*
Application of practical aspects of export and import procedures by international business: organization, development of foreign sales, export and import procedures, and regulations and documentation of financial operations of global trade.

IBUS 197 International Business Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in International Business. See Class Schedule for specific topic offered. Course title will designate subject covered.

Internet

See Business, Graphic Communications - Multimedia and Web, and CSIS - Web Technology

Italian (ITAL)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

ITAL 101 Italian I (5)
5 hours lecture-1 hour laboratory
Transfer acceptability: *CSU; UC*
This course is the first semester of Italian. This elementary level course is a study of the Italian language and Italian-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in Italian.

ITAL 102 Italian II (5)
5 hours lecture-1 hour laboratory
Prerequisite: *A minimum grade of 'C' in ITAL 101 or two years of high school Italian*
Transfer acceptability: *CSU; UC*
This course is the second semester of Italian at the elementary level. It is a study of the Italian language and Italian-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with at least one previous semester of Italian.

ITAL 197 Italian Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Italian. See Class Schedule for specific topic offered. Course title will designate subject covered.

ITAL 201 Italian III (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in ITAL 102 or three years of high school Italian*
Transfer acceptability: *CSU; UC*
This course is the third semester of Italian. This intermediate level course is a study of the Italian language and Italian-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emplasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Italian. This intermediate level course is for students with at least two previous semesters of Italian. Class is largely conducted in Italian.

ITAL 201A Italian IIIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ITAL 102 or three years of high school Italian*
Note: *Covers the first half of ITAL 201; not open to students with credit for ITAL 201*
Transfer acceptability: *CSU; UC*
ITAL 201A is equivalent to the first half of ITAL 201. This course is the first half of the third semester of Italian. This intermediate level course is a study of the Italian language and Italian-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Italian. This intermediate level course is for students with at least two previous semesters of Italian. Class is largely conducted in Italian.

ITAL 201B Italian IIIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ITAL 201A*
Note: *Covers the second half of ITAL 201; not open to students with credit for ITAL 201*

Transfer acceptability: *CSU; UC*
ITAL 201B is equivalent to the second half of ITAL 201 and is the continuation of ITAL 201A. This intermediate level course is a study of the Italian language and Italian-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Italian. This intermediate level course is for students with at least two previous semesters of Italian. Class is largely conducted in Italian.

Japanese (JAPN)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

JAPN 101 Japanese I (5)
5 hours lecture-1 hour laboratory
Transfer acceptability: *CSU; UC*
This course is the first semester of Japanese. This elementary level course is a study of the Japanese language and Japanese-speaking cultures, with emphasis on the development of communicative skills and basic structures. The course includes a study of fundamental grammar, idiomatic expressions, Hiragana and Katakana (Japanese alphabets). Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in Japanese.

JAPN 101A Japanese IA (3)
3 hours lecture
Note: Covers the first half of JAPN 101; not open to students with credit for JAPN 101
Transfer acceptability: CSU; UC
Japanese 101A is equivalent to the first half of Japanese 101. This elementary level course is a study of the Japanese language and Japanese-speaking cultures, with emphasis on the development of communicative skills and basic structures. This beginning-level course is for students with no previous coursework in Japanese.

JAPN 101B Japanese IB (3)
3 hours lecture
Prerequisite: A minimum grade of 'C' in JAPN 101A
Note: Covers the second half of JAPN 101; not open to students with credit for JAPN 101
Transfer acceptability: CSU; UC
Japanese 101B is equivalent to the second half of Japanese 101, and is a continuation of Japanese 101A. This elementary level course is a study of the Japanese language and Japanese-speaking cultures, with emphasis on the development of communicative skills and basic structures.

JAPN 102 Japanese II (5)
5 hours lecture-1 hour laboratory
Prerequisite: *A minimum grade of 'C' in JAPN 101, or JAPN 101A and 101B or two years of high school Japanese*
Transfer acceptability: *CSU; UC*
This course is the second semester of Japanese. This elementary level course is a study of the Japanese language and Japanese-speaking cultures, with emphasis on the development of communicative skills and basic structures. The course includes a study of fundamental grammar, idiomatic expressions, Kanji (Chinese characters) in addition to Hiragana and Katakana (Japanese alphabets). Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory.

JAPN 197 Japanese Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Japanese. See Class Schedule for specific topic offered. Course title will designate subject covered.

JAPN 201 Japanese III (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in JAPN 102 or three years of high school Japanese*
Transfer acceptability: *CSU; UC*
This course is the third semester of Japanese. This intermediate level course is a study of the Japanese language and Japanese-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Japanese.

JAPN 202 Japanese IV (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in JAPN 201 or four years of high school Japanese*
Transfer acceptability: *CSU; UC*
This course is the fourth semester of Japanese. This intermediate level course is a study of the Japanese language and of special topics on the culture of the Japanese-speaking world. Emphasis is on further development of cross-cultural awareness, as well as, the development of oral, listening, reading and writing skills in order to improve communicative competence in Japanese.

Journalism (JOUR)

Contact the Communications Department for further information.
(760) 744-1150, ext. 2440
Office: U-12
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Journalism

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Journalism

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Broadcast Journalism

PROGRAMS OF STUDY

Broadcast Journalism

Provides a background in print journalism and broadcast journalism: practical experience in gathering, writing, editing and producing news. This certificate prepares students for employment in the television news industry.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
JOUR 101	News Writing and Reporting	3
JOUR 105	Newspaper Production	3
RTV/ENTT 120	Digital Television Production	3
RTV 240	Television News	4
RTV 245	Advanced TV News	3
TOTAL UNITS		**16**

The Broadcast Journalism Certificate of Proficiency is also listed under Radio and Television.

Journalism

Provides a background in communication theory and history: practical experience in gathering, writing, editing, and displaying news; and actual newspaper production experience.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
JOUR 101	News Writing and Reporting	3
JOUR 105	Newspaper Production	3
JOUR 205	Advanced Newspaper Production	3
JOUR 210	Advanced Newswriting and Reporting	3
JOUR 215 or JOUR 120	Newspaper Editing Magazine Journalism	3
JOUR 110L	Journalism Laboratory	1,2
COMM 100 or COMM 105	Mass Media in America Race, Gender and Media Effects	3
ENG 100	English Composition	4
GCIP/ R GCIP 149	Page Layout and Design I	4
POSC 101	Intro Politics/American Political Institutions	3
POSC 102	Intro to U.S. and California Governments	3
PSYC 100 or SOC 100	Intro to Psychology Intro to Sociology	3
TOTAL UNITS		**36 - 37**

Recommended Electives: JOUR/PHOT 140, JOUR 103, JOUR 295, COMM 104
Note: JOUR 105, 205, 210, and 215 may not be taken concurrently.

COURSE OFFERINGS

JOUR 101 News Writing and Reporting (3)
3 hours lecture
Transfer acceptability: *CSU*
Principles of basic journalism. Development of news judgment and clear writing skills. Evaluation of news reporting techniques and sources, and ethical and legal considerations. Emphasis on practical application for newspaper journalism.

JOUR 103 Feature Writing (3)
3 hours lecture
Transfer acceptability: *CSU*
Principles of newspaper and magazine feature writing. Development of clear writing skills. Evaluation of interviewing techniques and information gathering. Applications of ethical and legal standards. Emphasis on practical application for newspaper and magazine journalism.

JOUR 105 Newspaper Production (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in JOUR 101*
Corequisite: *JOUR 110L*
Transfer acceptability: *CSU*
Journalism for the student who wants practical application in newspaper work. Emphasis is on writing and editing for Palomar College's newspaper, The Telescope.

JOUR 110L Journalism Laboratory (1,2)
3 or 6 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Practice in copywriting, layout, headline writing, and other skills necessary to produce the campus newspaper, The Telescope, or in related journalism projects.

JOUR 120 Magazine Journalism (3)
3 hours lecture
Recommended Preparation: *A minimum grade of 'C' in Journalism 101*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Study and practical experience in planning content and layout, and editing the college magazine. It provides a format for the application of photojournalism, feature article writing, page design skills, and copy editing.

JOUR 140 Photojournalism (3.5)
7 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or 110*
Note: *Cross listed as PHOT 140*
Transfer acceptability: *CSU*
A study of the history and practice of photojournalism, providing specific application through photographing for The Telescope, Palomar College's newspaper. Student must provide own camera.

JOUR 205 Advanced Newspaper Production (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in JOUR 105*
Corequisite: *JOUR 110L*
Transfer acceptability: *CSU*
Advanced work in the production of The Telescope. Emphasis is on writing, photography, page layout and graphic design.

JOUR 210 Advanced Newswriting and Reporting (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in JOUR 205*
Corequisite: *JOUR 110L*
Transfer acceptability: *CSU*
Practical newswriting experience through work on The Telescope staff. All journalistic skills are refined and augmented in this course. Accurate reporting and development of compelling, clear, and concise writing technique are stressed.

JOUR 215 Newspaper Editing (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in JOUR 210*
Corequisite: *JOUR 110L*
Transfer acceptability: *CSU*
Basic skills involved in editing a newspaper, including news judgment, directing reporting staff, copy editing, headline writing, page layout, selection and placement of photos, and computerized page design. All skills are practiced in actual editorial situations for the Palomar College newspaper, The Telescope.

JOUR 295 Directed Study in Journalism (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in Journalism subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Judaic Studies (JS)

See Multicultural Studies for additional courses

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: ST-28

COURSE OFFERINGS

JS 106 Introduction to Judaism I (3)
3 hours lecture
Note: *Cross listed as RS 106*
Transfer acceptability: *CSU; UC*
The philosophy, religion and ethnic culture of the Jewish people from the Patriarchs and Prophets through the modern branches of Judaism. Topics covered include Torah, Talmud, various commentaries and movements affecting Judaism; ceremonies, artifacts, and language.

JS 107 Introduction to Judaism II – Culture (3)
3 hours lecture
Note: *Cross listed as RS 107*
Transfer acceptability: *CSU; UC*
A survey of the cultural and historical roots of the Jewish people from 2000 B.C. to the present; their role in the ancient Near East; relationships in the Western World from the Greco Roman period to the post World War II era; creation and development of the state of Israel; cultural, religious, and political impact on America and the world community.

Legal Studies (LS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Legal Studies

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Legal Support Assistant

PROGRAM OF STUDY

Legal Studies

The Legal Studies major leads to an A.A. degree or transfer program, providing students with general knowledge of the philosophy of law, the legal process, legal institutions, and legal reasoning. This is not a paralegal or a para-professional major but will prepare students for careers within the legal profession.

A.A. DEGREE MAJOR

Program Requirements		Units
LS 105*	Legal Communications and Methods	3
LS/PLS 110	Computer Skills for the Legal Profession	2
LS/PLS 121*	Introduction to Law	3
LS 145*	Legal Ethics	3
LS/PLS 240	Civil Liberties and Procedures	3
LS/PLS 290	Contemporary Legal Issues	3
PHIL 115	Critical Thinking	3
POSC 101	Introduction to Politics/American Political Institutions	3
POSC 102	Introduction to U.S. and California Governments	3
Electives	**(Select 6 units)**	
AJ 100	Introduction to Criminal Justice	3
AJ 104	Criminal Law	3
BUS 115	Business Law	3
BUS 116	Business Law	3
BUS 117	Legal Environment of Business	3
LS/PLS 170	Alternative Dispute Resolution	3
LS/PLS 190	Clinical Studies	3
LS 295	Directed Study in Legal Studies	1, 2, 3
POSC 110	Introduction to World Politics	3
TOTAL UNITS		**31**

Legal Studies students may major or minor in *Law and Society* upon transfer to the University of California, San Diego.

Students who wish to double major at UCSD will be afforded maximum flexibility in the selection of elective courses.

*Transfer students to University of California, San Diego extension Paralegal certificate program will receive credit for the asterisked courses.

Legal Studies students should seek early advising for transfer.

PROGRAM OF STUDY

Legal Support Assistant

For students who are interested in working within the legal field. This certificate program prepares the student for entry-level legal work, or enhances the skills of those students already working in law offices, corporations, the courts, or government agencies.

A Certificate of Proficiency will be awarded to students who successfully complete the courses listed below.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
LS 105	Legal Communications and Methods	3
LS/PLS 110	Computer Skills for the Legal Profession	2
LS/PLS 121	Introduction to Law	3
LS 145	Legal Ethics	3
OIS 115	Filing and Records Management	1
OIS 210	Law Office Procedures I	3
	Demonstrate the ability to type 35 words per minute	0
TOTAL UNITS		**15**

Recommended Electives: BUS 110, 125; OIS 102

COURSE OFFERINGS

LS 105 Communications and Methods (3)
3 hours lecture
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
This course is an introduction to legal writing and research. The course begins with an overview of basic writing skills and preparation of legal correspondence. In addition, the course reviews the use of proper legal citations, and the drafting of legal memoranda. Basic research methods are reviewed to introduce the student to legal research and analysis.

LS 110 Computer Skills for the Legal Profession (2)
4 hours lecture/laboratory
Note: *Cross listed as PLS 110*
Transfer acceptability: *CSU*
A comprehensive hands-on study of computer software applications in the legal environment to include Word, Excel, Access, PowerPoint, PDF files, scanning, internet literacy and specific legal software.

LS 121 Introduction to Law (3)
3 hours lecture
Note: *Cross listed as PLS 121*
Transfer acceptability: *CSU; UC - BUS 115, 116, 117, LS 121, PLS 121 combined: maximum credit, one course.*
An introduction to law and the legal system. Includes an examination of the federal and state court system, criminal law, civil law, administrative law, and procedural law.

LS 145 Legal Ethics (3)
3 hours lecture
Transfer acceptability: *CSU*
Legal ethics and professional responsibility within the legal profession. Focuses on standards required by the American Bar Association and other professional associations involving legal professionals working in the field of law.

LS 155 Legal Writing (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in LS/PLS 150 and ENG 100*
Note: *Cross listed as PLS 155*
Transfer acceptability: *CSU*
The techniques of legal writing and analysis as applied to the drafting of a legal memorandum, case briefing, and law office correspondence. Using legal research skills developed in PLS 150/LS 150 to formulate written answers, in proper legal format, to legal issues and questions presented.

LS 170 Alternative Dispute Resolution (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS/PLS 121*
Note: *Cross listed as PLS 170*
Transfer acceptability: *CSU*
Alternative Dispute Resolution (ADR) utilizes various processes to settle disputes without a court adjudication, i.e., an alternative to civil dispute resolution. This course will review minitrial, settlement conference, conciliation, and emphasize negotiation mediation, and arbitration. The role of the paralegal in ADR will be addressed and a review of the essential laws.

LS 190 Clinical Studies (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in LS/ PLS 121*
Note: *Cross listed as PLS 190; may be taken 3 times*
Transfer acceptability: *CSU*
This course provides the student with an opportunity to gain practical work experience within the legal field. The student will complete 120 hours of work at the internship site and attend three seminars during the semester that will focus on transitioning to the work force.

LS 240 Civil Liberties and Procedures (3)
3 hours lecture
Note: *Cross listed as PLS 240*
Recommended preparation: *ENG 50 or eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
The study of the Bill of Rights and Supreme Court decisions focusing on civil rights and liberties. This area of constitutional law exams the relationship between individuals and government. Emphasis is on minority issues such as privacy, personal freedom, political equality, and first amendment jurisprudence.

LS 290 Contemporary Legal Issues (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS 105*
Note: *Cross listed as PLS 290*
Transfer acceptability: *CSU*
Contemporary legal issues will be explored by leading experts in the field via TV broadcasts. Seminars will be conducted for the purpose of further developing legal issues and completing a research project. Students will be encouraged to submit research projects to AAFPE for publication in the American Association for Paralegal Education Law Journal. This capstone course focuses on advanced legal writing, analysis, and research.

LS 295 Directed Study in Legal Studies (1, 2, 3)
3, 6, or 9 hours of laboratory
Prerequisite: *Approval of project or research by department chairperson/ director*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in legal Studies subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Library Technology (LT)

Contact the Library Technology Department for further information.
(760) 744-1150, ext. 2666
Office: LL-213-B

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Library Technology

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Library Technology

PROGRAM OF STUDY

Library Technology

Provides training for students desiring employment as library technical assistants and retraining for those reentering the labor market.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
LT 100	Introduction to Libraries/Info Services	3
LT 110	Library Skills/Technical Services	3
LT 115	Library Operational Skills/Public Services	3
LT 120	Info Sources/Services/Reference	3
LT 130	Library Media and Technology	3
LT 140	Library Services Child/Young Adults	3
CSIT 105 or CSIT 120/ R CSIS 120	Computer Concepts and Applications Computer Applications	3
Electives Group I (Select 3 – 4 units)		
BUS 125	Business English	3
BUS 205	Business Writing	3
ENG 100	English Composition	4
Electives Group II (Select 3 units)		
CE 100	Cooperative Education	1, 2, 3
CE 150	Cooperative Education Internship	2,3
LT 197	Topics in Library Technology	.5-3
TOTAL UNITS		**27 – 28**

COURSE OFFERINGS

LT 100 Introduction to Libraries and Information Services (3)
3 hours lecture
Transfer acceptability: *CSU*
This course is an introduction to the philosophy of library service; history and types of libraries; organization and operation of libraries and history of information. The role of the library/media technician; duties of the library/media technician in public services, reference, and technical services will also be introduced. Topics covered include the basic skills necessary for successful library employment including job search, application procedures, and the relationship of the LMTA to the Librarian, the library staff, and the community served.

LT 110 Library Operational Skills/Technical Services (3)
3 hours lecture
Transfer acceptability: *CSU*
This course is an introduction to the principles and practices of technical services including cataloging and acquisitions.

LT 115 Library Operational Skills/Public Services (3)
3 hours lecture
Transfer acceptability: *CSU*
This course will prepare the student to provide public service in the circulation area of the library. Students will be introduced to principles and practices of material shelving, interlibrary loan services, circulation of materials, fines, patron records, supervision, handling cash, maintaining statistics, and building security and emergency procedures.

LT 120 Information Sources and Services/Reference (3)
3 hours lecture
Transfer acceptability: *CSU*
This course prepares the student to provide assistance in reference services. Students will be introduced to principles and practices of reference interview, reference materials, database searching, online catalogs, World Wide Web searching and evaluation, and bibliographic instruction.

LT 130 Library Media and Technology (3)
3 hours lecture
Transfer acceptability: *CSU*
Prepares the student to use instructional media in the classroom and library/media center, with emphasis on the role and utilization of computers and other technology in education. Topics covered include the utilization of videotapes, graphics, and other projected and non-projected media, operation of appropriate equipment, and the production of transparencies, graphics and displays.

LT 140 Library Services for Children and Young Adults (3)
3 hours lecture
Transfer acceptability: *CSU*
Practical use of children's and young adults' materials for readers' advisory, research, and reference service in school library/media centers and public library youth services' departments. Current trends, concerns, and methodology for youth programming and literature activities will be covered.

LT 154 Information for Life Long Learning (3)
3 hours lecture
Transfer acceptability: *CSU*
This class will prepare students to locate, evaluate, and use information resources through the study of learning styles, goal setting, study skills, health and wellness, and human behavior. Students will work independently and in groups leading to an integrated understanding of themselves and the value of information.

LT 197 Topics in Library Technology (.5-3)
Units awarded in topics courses are dependent upon the number of lecture hours required of the student. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Selected topics in Library Technology. Refer to the Class Schedule for topics covered.

Mathematics (MATH)

Contact the Mathematics Department for further information.
(760) 744-1150, ext. 2535
Office: E-11

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Mathematics

Any student wishing to earn an A.A. Degree must meet competence requirements at the MATH 60 level. Methods by which a student can demonstrate competence are listed under "Competence Requirements" in front of this catalog. Students wishing to enroll in MATH 50, 50A, 56, 60, 110, 115, 120, 125, and 135 must participate in the mathematics placement process or meet the prerequisite listed in the catalog. The mathematics placement test may be taken two times within a two year period, through the Palomar College Counseling Center. The assessment and placement process determines eligibility for enrollment in these courses. Students interested in determining their readiness to enroll in MATH 140 may additionally request to take the College Algebra Asset Test. Arrangements for this test can be made in the Counseling Center.

PROGRAM OF STUDY

Mathematics

Provides the background to satisfy upper division course work in mathematics and for entry-level positions that require a knowledge of mathematics such as Technical Assistant and Mathematical Technician. The student is advised to check with the school to which he or she wishes to transfer for additional courses which may be required.

A.A. DEGREE MAJOR

Program Requirements		Units
MATH 140	Calculus with Analytic Geometry, First Course	5
MATH 141	Calculus with Analytic Geometry, Second Course	4
MATH 205	Calculus with Analytic Geometry, Third Course	4
MATH 120 or	Elementary Statistics	
MATH 200 or	Introduction to Linear Algebra	
MATH 206	Calculus with Differential Equations	3,4
MATH/		
CSCI 146 or	FORTRAN 90 for Mathematics and Science	3
CSCI 110 or	Programming for Computer Sciences	4
CSCI 220	C Programming	4
TOTAL UNITS		**19 - 21**

Recommended Electives: PHYS 230, 231, 232; CHEM 110, 115; MATH 245

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

MATH 10 Basic Arithmetic (3)
3 hours lecture
Non-degree Applicable
Basic arithmetic computational skills, with an emphasis on the whole numbers, fractions, decimals, and an introduction to the concepts of area and perimeter. Designed for students who are lacking fundamental arithmetic skills.

MATH 12 Supplemental Instruction for Basic Arithmetic (1)
1 hour lecture
Note: *Pass/No Pass grading only; may be taken 2 times*
Non-degree Applicable
Supplemental instruction for students enrolled in MATH 10 – Basic Arithmetic. Designed for students who need additional review of basic arithmetic topics.

MATH 15 Prealgebra (3)
3 hours lecture
Note: *May be taught in Spanish*
Non-degree Applicable
The basic arithmetic operations, integers, fractions, decimals, percents, ratio and proportion, basic geometric con¬cepts, problem-solving techniques, and an introduction to algebraic thinking.

MATH 17 Supplemental Instruction for Prealgebra (1)
1 hour lecture
Note: *Pass/No Pass grading only; may be taken 2 times*
Non-degree Applicable
Supplemental instruction for students enrolled in MATH 15 - Prealgebra. Designed for students who need additional review of prealgebra topics.

MATH 42A Supplemental Instruction for Beginning Algebra Part I (1)
1 hour lecture
Note: *Pass/No Pass grading only; May be taken 2 times*
Non-degree Applicable
Supplemental instruction for students enrolled in MATH 50A - Beginning Algebra. Designed for students who need additional review of beginning algebra topics.

MATH 42B Supplemental Instruction for Beginning Algebra Part II (1)
1 hour lecture
Note: *Pass/No Pass grading only; May be taken 2 times*
Non-degree Applicable
Supplemental instruction for students enrolled in MATH 50B - Beginning Algebra. Designed for students who need additional review of beginning algebra topics.

MATH 47 Mathematics Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Non-degree Applicable
Topics in Mathematics. See class schedule for specific topic covered. Course title will designate subject covered.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

MATH 50 Beginning Algebra (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 15 or eligibility determined through the math placement process*
Note: *Selected classes may occasionally be taught in Spanish*
Elementary algebra which emphasizes mathematical reasoning, problem solving, and real-world applications using numerical, algebraic, and graphic models. Topics include problem-solving techniques, algebraic expressions, polynomials, linear equations, linear inequalities, linear and nonlinear graphs, systems of linear equations in two variables, integer exponents, proportions, and radicals.

MATH 50A Beginning Algebra Part I (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 15 or eligibility determined through the math placement process*
Note: *Not open to students with credit in MATH 50*
First part of Math 50 with emphasis on mathematical reasoning, problem solving, and real-world applications using numerical, algebraic, and graphical models. Topics include problem-solving techniques, algebraic expressions, polynomials, linear equations, linear inequalities, linear and nonlinear graphs, and natural number exponents.

MATH 50B Beginning Algebra Part II (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 50A*
Note: *Not open to students with credit in MATH 50*
Second part of Math 50 with continued emphasis on mathematical reasoning, problem solving, and real-world applications, using numerical, algebraic, and graphical models. Topics include problem-solving techniques, algebraic expressions, polynomials, linear equations, linear inequalities, linear and nonlinear graphs, systems of linear equations in two variables, integer exponents, proportions, and radicals.

MATH 55 Geometry (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in either MATH 50 or MATH 50B or eligibility determined through the math placement process*
Fundamentals of plane geometry and selected topics from solid geometry developed by both inductive and deductive processes. Especially recommended for prospective teachers and/or students who will be taking Trigonometry.

MATH 56 Beginning/Intermediate Algebra (6)
6 hours lecture-2 hours laboratory
Prerequisite: *Eligibility determined through the math placement process*
Note: *Not open to students with credit in MATH 60*
A review of elementary algebra and in-depth coverage of intermediate algebra intended for the student who has previous experience with algebra. Meets requirement for the A.A. degree. Meets prerequisite requirement for mathematics courses number 100-120, and 135.

MATH 60 Intermediate Algebra (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in either MATH 50 or MATH 50B or eligibility determined through the math placement process*
Graphic, numeric, analytic and applied perspectives on topics including linear, quadratic, exponential and logarithmic functions, exponents and radicals, linear and nonlinear systems of equations and inequalities.

MATH 97 Mathematics Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *A minimum grade of 'C' in either MATH 50 or MATH 50B, or eligibility determined through the Math Placement process*
Note: *May be taken 4 times*
Topics in Mathematics. See Class Schedule for specific topic offered. Course title will designate subject covered.

MATH 100 Exploring Mathematics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility determined through the math placement process*
Note: *May not be used to clear high school deficiency for students transferring to UC systems Fall 1994 or later*
Transfer acceptability: *CSU; UC – MATH 100, 105 and 106 combined: maximum credit, one course*
Selected topics from logic, modern algebra, number theory, and geometry. Designed to give the student an introduction to the structure of mathematics and its applications. Recommended for liberal arts students.

MATH 105 Concepts of Elementary Mathematics I (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 100, 105 and 106 combined: maximum credit, one course*
Selected topics from the real number system including properties and operations with integers and rational numbers as fractions and decimals. Additional topics include problem solving, numeration systems, number theory, and topics in logic and set theory. Recommended for prospective teachers.

MATH 105L Concepts of Elementary Mathematics I Laboratory (1)
2 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MATH 105, or concurrent enrollment in MATH 105*
Transfer acceptability: *CSU*
This is a lab to accompany Math 105. The course focuses on children's mathematical thinking regarding topics in the Math 105 curriculum including, but not limited to, place value, arithmetic operations with whole numbers, fractions, and problem-solving strategies. Students view and analyze vidoeclips of children being interviewed regarding their mathematical thinking, and students also interview children at the first and fourth/fifth grade levels, evaluating the strategies used and analyzing and reflecting upon the mathematical thinking involved. Recommended for prospective elementary and middle school teachers.

MATH 106 Concepts of Elementary Mathematics II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 105*
Transfer acceptability: *CSU; UC – MATH 100, 105 and 106 combined: maximum credit, one course*
An extension of Mathematics 105, including selected topics from two-and-three-dimensional geometry, motion geometry, and measurement. Recommended for prospective elementary and junior high school teachers, parents, and liberal arts students.

MATH 110 College Algebra (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 110 and 135 combined: maximum credit, one course.*
Study of the behavior and characteristics of functions from graphic, numeric, analytic and applied perspectives, including general polynomial functions, rational functions, exponential and logarithmic functions, and sequences. Systems of equations in several variables with an emphasis in matrix solutions.

MATH 115 Trigonometry (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility determined through the math placement process*
Transfer acceptability: *CSU*
The trigonometric functions and their applications including emphasis on the analytical aspects, identities, and trigonometric equations.

MATH 120 Elementary Statistics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 120, BIOL 215, and PSYC/SOC 205, combined: maximum credit, one course*
Selected topics include tabular and graphical representation of data, counting principles, permutations, combinations, discrete and continuous probability distributions, sampling distributions, the Central Limit Theorem, an introduction to inferential statistics, and simple linear regression analysis. Applications from the fields of business, economics, life sciences, social sciences, and the physical sciences.

MATH 130 Calculus for the Social Sciences (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 110 or eligibility determined through the math placement process*
Note: *Not open to students with credit in MATH 140*
Transfer acceptability: *CSU; UC – MATH 130 and 140 combined: maximum credit, one course*
Functions and their graphs including exponential and logarithmic functions, single variable calculus, limits, differentiation, integration and their applications, multivariable calculus, with application to business, social sciences and behavioral science.

MATH 135 Precalculus Mathematics (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 115 or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 110 and 135 combined: maximum credit, 4 units*
Designed for students who intend to take calculus. Emphasizes study of the behavior and characteristics of functions from graphic, numerical, analytic, and applied perspectives. Includes trigonometric functions, general polynomial functions, rational functions, exponential functions, logarithmic functions, absolute value functions, functions with rational exponents, and sequences. Selected topics from analytic geometry and linear systems are also presented.

MATH 140 Calculus With Analytic Geometry, First Course (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 135, or MATH 110 and MATH 115, or eligibility determined through the math placement process*
Transfer acceptability: *CSU; UC – MATH 130 and 140 combined: maximum credit, one course*
An introduction to analytic geometry, differentiation and integration of algebraic and transcendental functions of a single variable, and applications of differentiation.

MATH 141 Calculus With Analytic Geometry, Second Course (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 140*
Transfer acceptability: *CSU; UC*
Continuation of MATH 140. Topics include definite integrals and their applications; methods of integration (including the use of modern computational technology as appropriate); indeterminate forms; improper integrals; sequences; infinite series; Taylor series; conic sections; polar coordinate; and parametric equations from analytic, graphic, and numeric perspectives.

MATH 146 Fortran-90 for Mathematics and Science (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 135 or MATH 110 and MATH 115, or a passing grade on the appropriate placement test*
Note: *Cross listed as CSCI 146*
Transfer acceptability: *CSU; UC*
Programming in FORTRAN 90 to solve typical problems in mathematics, computer science, physical sciences, and engineering. Programming is done on a PC.

MATH 197 Mathematics Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *A minimum grade of 'C' in either MATH 56 or MATH 60, or eligibility determined through the math placement process*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus*
Topics in Mathematics. See Class Schedule for specific topic offered. Course title will designate subject covered.

MATH 200 Introduction to Linear Algebra (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 141*
Transfer acceptability: *CSU; UC*
Matrices, determinants, vectors, linear dependence and independence, basis and change of basis, linear transformations, and eigen values.

MATH 205 Calculus With Analytic Geometry, Third Course (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 141*
Transfer acceptability: *CSU; UC*
Vectors in the plane and space, three-dimensional coordinate system and graphing, vector-valued functions and differential geometry, partial differentiation, multiple integration, and vector calculus.

MATH 206 Calculus With Differential Equations (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 205*
Transfer acceptability: *CSU; UC*
A first course in ordinary differential equations from analytic, geometric, numeric and applied perspectives (including the use of modern computational technology as appropriate). Topics include exact, separable, and linear equations; initial value and boundary-value problems; systems of first-order equations; reduction of order; undetermined coefficients; variation of parameters; series solutions; and Laplace transforms.

MATH 245 Discrete Mathematics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 130 or MATH 140, or a passing score on the appropriate placement test*
Transfer acceptability: *CSU; UC*
The study of prepositional and predicate logic, number theory and methods of proof, elements of set theory, relations and functions, the Pigeonhole Principle, sequences, infinite sets, basic counting techniques, permutations, combinations, graphs and trees, and applications directed to the field of computer science.

Medical Assisting (MA)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Administrative Medical Assisting
- Clinical Medical Assisting

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Administrative Medical Assisting
- Clinical Medical Assisting

PROGRAMS OF STUDY

Administrative Medical Assisting

Provides specific skills for entry level positions as an administrative assistant in a physician's office or a medical clinic.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
MA 50	Introduction to Medical Assisting	3
MA 55	Medical Terminology and Anatomy	3
MA 56	Medical Terminology and Anatomy	3
MA 60	Medical Insurance	3
BUS 125	Business English	3
OIS 102	Intermediate Keyboarding	2
OIS 136.1	Word Basic	1
OIS 136.2	Word Intermediate	1
OIS 205	Office Procedures	3
CE 100*	Cooperative Education	2
TOTAL UNITS		**24**

* Cooperative Education must be related to this major.

Clinical Medical Assisting

Provides specific skills for entry level positions as a clinical assistant in a physician's office or a medical clinic.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
MA 50	Introduction to Medical Assisting	3
MA 55	Medical Terminology and Anatomy	3
MA 56	Medical Terminology and Anatomy	3
MA 65	Clinical Assisting: Patient Care	5
MA 66	Clinical Assisting: Diagnostic Procedures	5
MA 70	Supervised Clinical Experience	3.5
ZOO 145	Introduction to Anatomy and Physiology	3
BUS 125	Business English	3
OIS 101*	Beginning Keyboarding	2
TOTAL UNITS		**28.5 - 30.5**

* May be exempt by typing proficiency exam.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

MA 50 Introduction to Medical Assisting (3)
3 hours lecture
History and development of the medical profession and its specialties. Roles and functions of the medical assistant and medical assisting organizations. Principles of interpersonal relationships, professional attitudes, medical ethics, and law. Reception and scheduling of patients.

MA 55 Medical Terminology and Anatomy (3)
3 hours lecture
Basic medical terms with emphasis on word analysis and construction. Overview of anatomy and the pathological, diagnostic, therapeutic, and surgical terms related to the body as a whole and the integumentary, digestive, urinary, musculoskeletal, and male reproductive systems.

MA 56 Medical Terminology and Anatomy (3)
3 hours lecture
Basic medical terms with emphasis on word analysis and construction. Overview of anatomy and the pathological, diagnostic, therapeutic and surgical terms related to the cardiovascular, respiratory, hematologic, endocrine, and female reproductive systems, and to oncology.

MA 60 Medical Insurance (3)
3 hours lecture
Recommended preparation: *MA 55 or 56*
Provides entry-level skills training in medical insurance billing. Surveys private and government health and accident insurance plans and methods for preparing claim forms. Emphasis on compiling and extracting data for completion of forms.

MA 61 Medical Insurance Coding (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MA 55 or 56, or concurrent enrollment in MA 55 or 56*
Diagnosis and medical procedure coding utilizing International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and Current Procedural Terminology 4 (CPT-4) coding guidelines. Includes abstracting information from the medical record, utilizing computer coding techniques, and knowledge of strategies to promote accurate reimbursement of medical claims.

MA 65 Clinical Assisting: Patient Care (5)
3 hours lecture-6 hours laboratory
Preparation of patients and assisting physician with examinations, minor surgical procedures, and treatments. Recording medical histories and observations. Principles and methods of aseptic procedures, handling and care of instruments and supplies. Pharmacology with emphasis on preparation and administration of medication.

MA 66 Clinical Assisting: Diagnostic Procedures (5)
3 hours lecture-6 hours laboratory
Laboratory orientation and preparation of patients for diagnostic procedures. Specimen collection and handling. Basic urine and hematological tests. Emergency procedures.

MA 70 Supervised Clinical Experience (3.5)
10½ hours laboratory
Prerequisite: *A minimum grade of 'C' in MA 50, 55, 56, 65 and 66. Current CPR Basic 'C' Certificate. A Physical Examination and Physician's Report (free of infectious disease and physically and emotionally able to perform the duties of the MA 70 class). Proof of the following: Tuberculin Test (PPD), Tetanus/Diphtheria immunization, Rubella/Measles Vaccine, and Hepatitis B Vaccine (first in the series of 3 must be received a minimum of 10 days prior to day 1 of MA 70 class). Must be 18 years of age prior to day 1 of clinical experience.*
Supervised clinical (back office) experience in the physician's office, clinic, laboratory, or other appropriate health care facility. Students will assist the physician and medical staff to provide patient care, diagnostic procedures, and perform other duties delegated to the entry-level medical assistant with consideration of the ethical and legal implications. Clinical skills not prohibited by California regulations or the Clinical Laboratory Improvement Act of 1988 will be performed.

MA 97 Medical Assisting Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Medical Assisting. See Class Schedule for specific topic offered. Course title will designate subject covered.

Microbiology (MICR)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

COURSE OFFERINGS

MICR 110 Microbiology and Foods (3)
2 hours lecture-2 hours lecture/laboratory
Note: *Cross listed as FCS 110*
Transfer acceptability: *CSU*
Introduction to the principles of microbiology with an emphasis on foodborne pathogens. Students will explore biological factors and controls relating to reproduction of microorganisms and the effects on public health. This course does not meet microbiology requirement for pre-health students.

MICR 197 Microbiology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Microbiology. See Class Schedule for specific topic offered. Course title will designate subject covered.

MICR 200 Fundamentals of Microbiology (4)
2 hours lecture-7 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 102; or BIOL 200 and CHEM 104 or CHEM 100; or BIOL 100 and CHEM 104 or CHEM 100; or BIOL 105 and CHEM 104 or CHEM 100; or BIOL 101, BIOL 101L and CHEM 104 or CHEM 100*
Transfer acceptability: *CSU; UC*
Fundamentals of microbiology including medical aspects of microbiology.

Multicultural Studies (MCS)

See also Africana Studies, American Indian Studies, American Studies, Chicano Studies, Judaic Studies

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: ST-28

COURSE OFFERINGS

MCS 100 Introduction to Multicultural Studies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Social, cultural and political awareness of diverse national and international systems of thought and multicultural groups as revealed through their social institutions and cultural traditions emanating from family, community and nation - state.

MCS 110 Diverse Cultures in America Today (3)
3 hours lecture
Note: *Cross listed as AMS 110*
Transfer acceptability: *CSU; UC*
An investigation of prevalent cultural trends in four groups of diverse ethnic and cultural backgrounds in America -- African Americans, Latinos, Chinese, and people of Jewish heritage -- since World War II. Emphasis will be placed on the literary, musical, and artistic expressions of their heritage, social conditions, struggle to become part of the main culture, and response to prejudice, racial, and religious discrimination. Selections dealing with social conditions will include such diverse issues as family life, intergenerational conflicts, and religious traditions.

MCS 120 The Middle East: From Ancient Cultures to Modern Influences (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Explores the development of Middle Eastern cultures and traditions beginning with Mesopotamia and Egypt becoming the cradles of Western civilization to the present. Emphasis on the cultural milieu in which the three monotheistic religions, Judaism, Christianity and Islam, were born. The focus will be on cultural traditions as opposed to religious aspects. The influences of Greek, Roman, and Eastern civilizations in the region, including literary, philosophical, musical, and artistic creations by Middle Easterners in the past century. Discussions will also focus on the current cultural conflicts between religious traditions and cultural groups.

MCS 122 Survey of Middle Eastern History (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the history, cultures and religions of the Arab world including the emergence of Islam as a major world religion, and the impact of the Arab conquests on the Mediterranean world.

MCS 124 Islamic Cultures and Traditions (3)
3 hours lecture
Note: *Cross listed as RS 124*
Transfer acceptability: *CSU; UC*
An introductory course designed for students with a general interest in the Islamic world, including its history and cultural traditions. Examines the main social, traditional and legal institutions of Islam.

MCS 157 Theatre and Social Justice (3)
3 hours lecture
Note: *Cross listed as TA 157; may be taken 3 times*
Transfer acceptability: *CSU*
The study and practice of theatre as a vehicle for understanding global conditions of social injustice and working to create justice in local communities.

MCS 165 Introduction to Asian American Studies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course is an introduction to Asian American Studies. It focuses on the lives and experiences of Asian Americans in the United States. It surveys the history of immigration and cultural assimilation of the different Asian American groups in the U.S. As such, the course will utilize historical perspectives, literature, and film to examine the Asian American experience and the changing roles and contributions of Asian Americans in American society.

MCS 197 Multicultural Studies Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Multicultural Studies. See Class Schedule for specific topic offered. Course title will designate subject covered.

MCS 200 Race, Class, and Ethnic Groups in America (3)
3 hours lecture
Note: *Cross listed as AMS 200/SOC 200*
Transfer acceptability: *CSU; UC*
This course is designed to introduce the topics of intergroup relations in general to superordinate-subordinate relations in particular, as exemplified in various racial, ethnic, social class, and cultural groups. Emphasis is primarily on contemporary relations in the United States, although a comparative perspective is also offered.

Music (MUS)

Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: D-16

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Music

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Digital Animation, Compositing, and Music

PROGRAMS OF STUDY

Digital Animation, Compositing, and Music

This program is directed at the digital design and implementation of 3D animations, graphic compositing and music.

CERTIFICATE OF PROFICIENCY

Program Requirements (5 courses minimum required)		Units
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	4

GCMW 206	Motion Graphics Production and Compositing	4
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	3
TOTAL UNITS		**16 - 17**

Digital Animation, Compositing, and Music Certificate of Proficiency is also listed in Art and in Graphic Communications - Multimedia and Web.

Music

Students pursuing a music major will take the following required courses. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

Note: MUS 103 is recommended for students who need preparation for Music Theory I.

A.A. DEGREE MAJOR

Program Requirements		**Units**
MUS 100	Music Appreciation	3
MUS 105	Music Theory I	3
MUS 106	Music Theory II	3
MUS 110	Music Skills I	1
MUS 111	Music Skills II	1
MUS 180	Computer Music I	3
MUS 210	Advanced Harmony	3
MUS 211	Counterpoint	3
MUS 215	Music Skills III	1
MUS 216	Music Skills IV	1
Group One (Select 12 units)		
MUS 134	Palomar Women's Chorus	1
MUS/DNCE 137	Cuban and Brazilian Drumming I	1 - 2
MUS/DNCE 138	Cuban and Brazilian Drumming II	1 - 2
MUS 143	Palomar Chorale Chamber Ensemble	0.5 - 1
MUS 147	Concert Choir	1
MUS 148	Palomar Chorale	1
MUS 149	Spectrum Pop/Jazz Singers	1
MUS 150	Musical Theatre - Vocal	0.5 - 1
MUS 151	Concert Band	1
MUS 152	Jazz Ensemble	1
MUS 155	Chamber Ensemble - Brass	1
MUS 157	Guitar Ensembles	2
MUS 158	Chamber Singers	0.5 - 1
MUS 172	Repertory Jazz Ensemble	1
MUS 181	Computer Music II	3
MUS 184	Electronic Ensemble	3
MUS 187	Computer Music Composition	3
MUS 198	Palomar Symphony Orchestra	0.5 - 1
MUS 220	Applied Music	3
MUS 222	Performance Studies	0.5
MUS 223	Premier Chamber Ensembles	1
Group Two (Select 4-5 units)		
MUS 115	Basic Keyboard I	2
MUS 116	Accelerated Basic Keyboard	3
MUS 117	Basic Keyboard II	2
MUS 119	Piano Skills I	2
MUS 131	Vocal Literature and Performance	2
MUS 175	Beginning Guitar	2
MUS 176	Intermediate Guitar	2
MUS 179	Beginning Flamenco Guitar	2
MUS 224	Introduction to Jazz Piano	2
MUS 225	Piano Skills II	2
Group Three (Select 3 units)		
MUS 101	Survey of 20th Century Music	3
MUS 102	Introduction to Jazz	3
MUS 171	World Music	3
TOTAL UNITS		**41 - 42**

Recommended Elective: DNCE/MUS/TA 173

COURSE OFFERINGS

An activity may be taken four times for credit. Activity is defined to include all ability levels (e.g., A student may take a total of only four Keyboard courses for credit). Keyboard, Piano skills, Vocal, Brass Instruments, Woodwind Instruments, Guitar, Choir, Concert Band, Jazz, Chamber Ensemble, and String Orchestra are defined as activity courses.

Courses numbered under 100 are not intended for transfer credit.

MUS 96A Special Projects: Performance (1)
3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Participation in group or solo performances beyond those normally expected in individual study classes.

MUS 96B Special Projects: Research (1, 2, 3)
1, 2, or 3 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 105*
Note: *May be taken 2 times*
Special study in the areas of music theory, composition, history, or literature.

MUS 97D Music Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Music. See Class Schedule for specific topic offered. Course title will designate subject covered.

MUS 100 Music Appreciation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey course that develops musical listening skills through lectures, discussion, in-class listening to recorded music, and live concert attendance. Stylistic and structural elements, cultural roles of music and musicians, and contributions of technology in Western music are examined through representational works from the earliest notated music to the present.

MUS 101 Survey of 20th Century Music (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Music from the mid 19th Century to the recent avant garde, with emphasis on understanding the issues and philosophies of modern musical thought.

MUS 102 Introduction to Jazz (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Surveys the historical and musical development of jazz as a unique African American expression from the beginning of slavery in the U.S. to the current global multicultural expression of jazz in the twenty-first century. Emphasis is placed on how racial, socio-economic, and gender relationships between whites, African Americans and Latinos were reflected in and influenced by jazz musicians, and the evolving technological contexts in which jazz has developed. Students become active listeners, and develop culturally relevant aesthetic criteria in contextualizing jazz performances.

MUS 103 Fundamentals of Music (3)
3 hours lecture
Transfer acceptability: *CSU; UC*

Training in the fundamentals of music, primarily for the non music major. The course of study includes a thorough acquaintance with scales, intervals, keys and triads, as well as development in ability to sight read simple melodic material and take simple melodic dictation.

MUS 105 Music Theory I (3)
3 hours lecture-2 hours laboratory
Corequisite: *MUS 110*
Transfer acceptability: *CSU; UC*
Analysis and written work in melodic, rhythmic, and harmonic structure of music. Includes review of music rudiments and study of structure and harmonic usage of triads. Required concert attendance.

MUS 106 Music Theory II (3)
3 hours lecture-2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 105*
Corequisite: *MUS 111*
Transfer acceptability: *CSU; UC*
Continuation of MUS 105, extending analysis and written work into all aspects of diatonic harmony, secondary dominants, and elementary modulation. Music literacy is developed through listening and score reading assignments. Required concert attendance.

MUS 110 Music Skills I (1)
1 hour lecture - 3 hours laboratory
Prerequisite: *Ability to read and write basic music notation*
Transfer acceptability: *CSU; UC*
Melodic and rhythmic sight reading and dictation. Required concert attendance. Required for students with a major in music, but open to all students.

MUS 111 Music Skills II (1)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 110*
Transfer acceptability: *CSU; UC*
Continuation of MUS 110 and harmonic dictation. Required concert attendance. Required for students with a major in music, but open to all students.

MUS 115 Basic Keyboard I (2)
1 hours lecture - 3 hours laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 115, MUS 116, MUS 117*
Transfer acceptability: *CSU; UC*
An introduction to the keyboard through the study of notation, basic hand positions, and chord formations.

MUS 116 Accelerated Basic Keyboard (3)
1½ hours lecture - 4 ½ hours laboratory
Prerequisite: *Ability to read music in treble and bass clefs*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 115, MUS 116, MUS 117*
Transfer acceptability: *CSU; UC*
Accelerated class for the beginning keyboard student. Required of all students with a major in music and for music credential candidates.

MUS 117 Basic Keyboard II (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MUS 115 or the passing of equivalency test*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 115, MUS 116, MUS 117*
Transfer acceptability: *CSU; UC*
Keyboard experience through the further study of notation, scales, and chord progressions. Sight reading and improvisation.

MUS 119 Piano Skills I (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MUS 117 or the passing of equivalency test*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 119, MUS 225*
Transfer acceptability: *CSU; UC*
Piano techniques including scales and arpeggios, sight reading, and ensemble playing. Required of all music majors and for credential candidates.

MUS 123 Arts Across the Curriculum (3)
3 hours lecture
Note: *Cross listed as: ART 123/DNCE 123/TA 123*
Transfer acceptability: *CSU*
This course is an introduction to the artistic creative process through a comparative study of dance, music, theatre, and visual arts, within a social and cultural context. The principles of artistic perception, creative expression, cultural and historical context, and aesthetic valuing will be discussed.

MUS 125 Musicianship for Elementary Teachers (3)
3 hours lecture
Transfer acceptability: *CSU*
Skills and competencies required in the elementary school classroom including basic music theory, sight singing, classroom instruments, voice, and a useful repertoire of songs selected from State adopted music textbooks. It is recommended that students lacking a basic knowledge of the piano enroll in MUS 115 concurrently.

MUS 130 Fundamental Vocal Skills (2)
2 hours lecture
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 130, MUS 131, MUS 132*
Transfer acceptability: *CSU; UC*
Introduction to the basics of singing. Includes proper breath control and posture, practice techniques, diction, and performance of simple song literature.

MUS 131 Vocal Literature and Performance (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 130*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 130, MUS 131, MUS 132*
Transfer acceptability: *CSU; UC*
Establishment of a basic repertoire for the singer. Rehearsal and performance of folk songs; musical theatre; and Italian, German, French, and English art songs.

MUS 132 Popular Vocal Technique (1)
2 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MUS 130*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 130, MUS 131, MUS 132*
Transfer acceptability: *CSU; UC*
Development of individual style in popular music. Scat singing, microphone technique, and expansion of repertoire.

MUS 134 Palomar Women's Chorus (1)
3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 134, 147, 148, 149*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of standard choral literature for women's voices. Trips to college choir festivals and performances in the community and at Palomar College.

MUS 137 Cuban and Brazilian Drumming I (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Note: *Cross listed as DNCE 137; may be taken 4 times; maximum of 4 completions in any combination of MUS/DNCE 137 and MUS/DNCE 138*
Transfer acceptability: *CSU; UC*
Drum, percussion and song classes in the traditions of Escola de Samba from Rio de Janeiro, Brazil and Afro-Cuban traditions, Rumba, Congo, makuta from Cuba. Develop ability to work as part of a drum ensemble.

MUS 138 Cuban and Brazilian Drumming II (1, 1.5, 2)
2, 3, or 4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in DNCE/MUS 137*
Note: *Cross listed as DNCE 137; may be taken 4 times; maximum of 4 completions in any combination of MUS/DNCE 137 and MUS/DNCE 138*
Transfer acceptability: *CSU; UC*
Intermediate level drum, percussion and song classes in the traditions of Escola de Samba from Rio de Janeiro, Brazil and Afro-Cuban traditions, Rumba, Congo, makuta from Cuba. Develop ability to work as part of a drum ensemble.

MUS 143 Palomar Chorale Chamber Ensemble (.5,1)
1½ or 3 hours laboratory
Prerequisite: *Enrollment subject to audition with emphasis on vocal ability and music reading*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Rehearsal and performance of choral and chamber music for voices. Attendance at all scheduled performances is required.

MUS 147 Concert Choir (1)
3 hours laboratory
Prerequisite: *Previous singing experience*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 134, MUS 147, MUS 148, MUS 149*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of standard choral literature. Trips to college choir festivals and performances in the community and at Palomar College.

MUS 148 Palomar Chorale (1)
3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 134, MUS 147, MUS 148, MUS 149*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of standard oratorio and choral literature. Attendance at all scheduled performances is required.

MUS 149 Spectrum Pop/Jazz Singers (1)
3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 134, MUS 147, MUS 148, MUS 149*
Transfer acceptability: *CSU; UC*
A group of singers specializing in the performance of jazz, gospel, rock, musical theatre, and popular music. Improvement of musicianship and concept of style. The ensemble gives campus and community concerts. Attendance at all scheduled performances is required.

MUS 150 Musical Theatre – Vocal (.5,1)
1½ or 3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of vocal musical theatre literature. Attendance at all scheduled rehearsals and productions is required.

MUS 151 Concert Band (1)
3 hours laboratory
Prerequisite: *Ability to perform on one or more band instruments*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 151, MUS 161*
Transfer acceptability: *CSU; UC*
Study, rehearsal, and performance of standard concert band music.

MUS 152 Jazz Ensemble (1)
3 hours laboratory
Prerequisite: *Ability to perform on one or more instruments and read music. Enrollment subject to audition*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 152, 162, 172*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of standard stage band literature. Opportunities for students to arrange and compose for the band and rehearse the ensemble. Attendance at all scheduled performances is required.

MUS 155 Chamber Ensemble – Brass (1)
3 hours laboratory
Prerequisite: *Ability to perform on one or more instruments and to sight read music*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of chamber music literature for brass.

MUS 157 Guitar Ensembles (2)
2 hours lecture
Prerequisite: *Enrollment subject to audition with emphasis on music reading*
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC*
Performance practice considerations for ensemble music from various periods of music history, with an emphasis on music reading and classical technique.

MUS 158 Chamber Singers (.5,1)
1½ or 3 hours laboratory
Prerequisite: *Enrollment subject to audition with emphasis on vocal ability and music reading*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of chamber music for voices.

MUS 159 Musical Theatre Orchestra (.5,1)
1½ or 3 hours laboratory
Prerequisite: *Enrollment subject to audition; ability to play an instrument and read music at sight*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of musical theatre literature. Attendance at all scheduled productions is required.

MUS 161 Summer Concert Band (.5)
1½ hours laboratory
Prerequisite: *Ability to perform on one or more instruments*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 151, MUS 161*
Transfer acceptability: *CSU; UC*
Study, rehearsal, and performance of standard concert band music.

MUS 162 Summer Stage Band (.5)
1½ hours laboratory
Prerequisite: *Ability to perform on an instrument and read music*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 152, 162, 172*
Transfer acceptability: *CSU; UC*
Extensive reading and rehearsing of jazz and jazz rock literature.

MUS 170 Great Musicians Through Film (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The study of the life and compositions of such composers as Bach, Mozart, Beethoven, Schumann, Bruckner, and Stravinsky through documentary and biographical films accompanied by lectures and discussions as well as biographical film sketch of Authur Rubenstein.

MUS 171 World Music (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of world music including North American Indian, Mexico, India, Japan, Indonesia, Middle East, China, Africa, and South America, with emphasis on understanding the cultural background, instruments, musical characteristics and the impact of world music on the 20th century culture.

MUS 172 Repertory Jazz Ensemble (1)
3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 152, 162, 172*
Transfer acceptability: *CSU*
Study and preparation of professional level materials for the large jazz ensemble.

MUS 173 Musical Theatre Scenes (1)
3 hours laboratory
Note: *Cross listed as DNCE 173/TA 173*
Transfer acceptability: *CSU*
Rehearsal and performance of solo and group scenes from Broadway musicals dating from the 1930's to the present.

MUS 175 Beginning Guitar (2)
2 hours lecture
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 175, 176, 178*
Transfer acceptability: *CSU; UC*
An introduction to the fingerboard through the study of notation, basic hand positions, and chord formations.

MUS 176 Intermediate Guitar (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 175*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 175, 176, 178*
Transfer acceptability: *CSU; UC*
A continuation of MUS 175 with a more in-depth study of the classical, flamenco, blues, and jazz styles. Theory, technique, and interpretation will be thoroughly explored.

MUS 178 Classical Guitar (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 175 or ability to read music*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 175, 176, 178*
Transfer acceptability: *CSU; UC*
Guitar techniques in the classical style, with emphasis on sight reading and ensemble playing as well as performance of guitar literature from the Renaissance through the early 20th Century.

MUS 179 Beginning Flamenco Guitar (2)
2 hours lecture
Prerequisite: *Basic knowledge of guitar*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC (Pending)*
Students will learn necessary terminology, harmony, rhythm, and additional techniques in order to develop a basic knowledge of Flamenco Guitar.

MUS 180 Computer Music I (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 103 or 115 or ARTI 246 or GCMW 204*
Transfer acceptability: *CSU*
This course is designed to give students an understanding of basic computer music application including sound design, MIDI, and music notation software.

MUS 181 Computer Music II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 180, or concurrent enrollment in MUS 180*
Transfer acceptability: *CSU*
An overview of digital audio techniques. Topic in sound synthesis, sound design, and sampling.

MUS 182 Introduction to Arts Management (3)
9 hours laboratory
Note: *Cross listed as AMS 182, ART 182, DNCE 182, TA 182*
Transfer acceptability: *CSU*
An introduction to the principles and practices of arts management through an interdisciplinary study of management topics in the visual and performing arts.

MUS 183 Internship in Arts Management (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AMS/ART/DNCE/MUS/TA 182*
Note: *Cross listed as AMS 183/ART 183/DNCE 183/TA 183*
Transfer acceptability: *CSU*
Practical experience in arts management in the visual and performing arts.

MUS 184 Electronic Ensemble (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MUS 103*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Instruction in music technology, composition, and performance. Students will compose and participate in performances of original works for electronic, computer, and acoustic instruments.

MUS 185 Franco Haitian Percussion and Song I (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *Cross listed as DNCE 185; may be taken 4 times; maximum of 4 completions in any combination of MUS/DNCE 185, 186*
Transfer acceptability: *CSU; UC*
An introduction to traditional Franco Haitian percussion and songs from the Eastern region of Cuba.

MUS 186 Franco Haitian Percussion and Song II (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *Cross listed as DNCE 186; may be taken 4 times; maximum of 4 completions in any combination of MUS/DNCE 185, 186*
Transfer acceptability: *CSU; UC*
Intermediate level Traditional Franco Haitian percussion and songs from the Eastern region of Cuba.

MUS 187 Computer Music Composition (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MUS 103 or MUS 115, and MUS 180 and MUS 181*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Students will work on individual computer music compositions. Instruction will include, but is not limited to, computer music software and hardware overviews. This will include composition and notation techniques, music analysis, detailed work on specific software applications, music publishing information, and rehearsal and part preparation. Students may also take this in conjunction with computer music classes in order to receive further tutelage with that class material.

MUS 197 Topics in Music (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Workshops in various special topics in music.

MUS 198 Palomar Symphony Orchestra (.5,1)
1½ or 3 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Study, rehearsal, and performance of a wide variety of orchestral literature from the Baroque, Classical, Romantic, and 20th Century styles. Attendance at all scheduled performances is required.

MUS 210 Advanced Harmony (3)
3 hours lecture 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 106*
Corequisite: *MUS 215*
Transfer acceptability: *CSU; UC*
Analysis and written work in altered chords, chromatic harmony, modulation, structural form (sonata allegro), and 20th Century developments. Required concert attendance.

MUS 211 Counterpoint (3)
3 hours lecture-2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 210*
Corequisite: *MUS 216*
Transfer acceptability: *CSU; UC*
Analysis and written work in two and three voice counterpoint in the 18th Century style (invention and fugue). Required concert attendance.

MUS 215 Music Skills III (1)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 111*
Transfer acceptability: *CSU; UC*
Continuation of MUS 111 and four part harmonic dictation. Introduction to chromatic dictation. Required for students with a major in music, but open to all students.

MUS 216 Music Skills IV (1)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 215*
Note: *May be taken 3 times; maximum of 4 completions in any combination of MUS 110, 111, 215, 216*
Transfer acceptability: *CSU; UC*
Continuation of MUS 215 and contrapuntal dictation. Required for students with a major in music, but open to all students.

MUS 220 Applied Music (3)
1½ hours lecture - 4½ hours laboratory
Corequisite: *MUS 222 and at least one music ensemble (MUS 134, 137, 138, 143, 147, 148, 149, 150, 151, 152, 155, 157, 158, 159, 172, 173, 184, 198)*
Limitation on Enrollment: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Individual lessons with music instructor developing basic techniques in applied music. Student is required to practice on campus, be concurrently enrolled in a music ensemble, participate in Performance Studies class, and perform for music juries at the conclusion of the semester.

MUS 222 Performance Studies (.5)
2 hours laboratory
Corequisite: *MUS 220*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
A combination of private studio instruction in instrument or voice with an off campus instructor, plus on campus training in performance skills.

Required conditions:

1. Fourteen clock hours of instruction with a private instructor and adequate practice time are required.
2. At the end of the semester the student will be required to perform for the Music Faculty.
3. Student should have necessary skills and technique on chosen instrument to begin training in public performance.

a. Piano
b. Harpsichord
c. Organ
d. Voice
e. Flute
f. Oboe
g. Clarinet
h. Saxophone
i. Bassoon
j. French Horn
k. Trumpet
l. Trombone
m. Baritone Horn
n. Tuba
o. Percussion
p. Violin
q. Viola
r. Cello
s. Contrabass
t. Harp
u. Classical Guitar
v. Classical Accordion
w. Studio Guitar

MUS 223 Premier Chamber Ensembles (1)
3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Chamber music ensembles for advanced performers. Enrollment subject to audition.

MUS 224 Introduction to Jazz Piano (2)
1 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 117 or the passing of equivalency test*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC (Pending)*
Provides students with a practical knowledge and proficiency in concepts pertaining to jazz piano, including reading chord symbols, chord voicings, stylistically appropriate accompaniment, and improvising in a jazz and/or pop music idiom.

MUS 225 Piano Skills II (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 119 or the passing of equivalency test*
Note: *May be taken 4 times; maximum of 4 completions in any combination of MUS 119, MUS 225*
Transfer acceptability: *CSU; UC*
Continuation of piano techniques with emphasis on improvised accompaniments, sight reading, ensemble playing, pedaling, and practice techniques.

MUS 227 Accompanying Ensemble (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 225 or the passing of equivalency test*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Techniques of, and practical experience in, piano accompaniment for ensembles, vocalists, and instrumentalists.

MUS 241 Solfege II (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in MUS 240*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Review sight-reading and writing in pentatonic scales and progress to major and minor scales, continuing to focus on sight-singing, ear training, keyboard and written scales using relative and absolute solminzation.

MUS 250 Choral Conducting (.5)
1 hour lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MUS 105 or MUS 245 or experience in conducting choirs*
Transfer acceptability: *CSU*
Practical conducting methods for choral musicians. Discussion and study of issues concerning musical rehearsal and performance with treble, SAB and SATB choral ensembles.

MUS 251 Master Class in Keyboard Literature, Analysis and Performance (.5,1,1.5,2,3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in MUS 225 or the passing of equivalency test*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Survey of keyboard literature presented in a master class format. Analysis of styles and techniques of solo and ensemble performances.

MUS 297 Experimental Topics in Music (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite *Enrollment subject to project approval.*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC (Pending) - credit determined by UC upon review of course syllabus.*
Advanced music projects including individual research, tutoring and performance for college classes and community projects.

Networking

See CSIS - Networking

Nursing Education (NURS)

Contact the Nursing Education Department for additional information.
(760) 744-1150, ext. 2279
Office: NO-1
For transfer information, consult a Palomar College Counselor.

Associate of Arts (AA) Degree:
AA Degree requirements are listed in Section 6 (green pages).
• Nursing

Associate of Science (AS) Degree:
•Nursing

The Associate Degree Nursing program is accredited by both the California Board of Registered Nursing and the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, 1-800-669-1656.

GENERAL INFORMATION
The Associate Degree Nursing program prepares graduates to provide direct nursing care to patients in hospitals and other health agencies at a staff nurse level. The curriculum consists of coursework in nursing, general education, and clinical nursing practice in local hospitals and other health agencies. The Nursing faculty of the College is directly responsible for all phases of the program.

Palomar College has two Associate Degree options available in Nursing. The Associate of Arts (AA) in Nursing Degree meets the requirements of Title V and the Board of Registered Nursing (BRN). The Associate of Science (AS) in Nursing Degree meets the requirements of Title V, Board of Registered Nursing (BRN), and National League of Nursing Accreditation Commission (NLNAC).

Admission to the nursing program is by special application. To be eligible for consideration, applicants must (1) be eligible for admission to Palomar College; (2) attend a Nursing Orientation meeting; (3) submit proof of high school graduation or equivalency or higher; (4) have a GPA of 2.5 in prerequisite sciences; (5) pass the Test of Essential Academic Skills (TEAS) with a composite score of at least 67%; and (6) submit a completed application along with the required documentation.

LICENSURE: Upon successful completion of the either the Associate of Arts (AA) in Nursing Degree or the Associate of Science (AS) in Nursing Degree, students will be eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX RN). If performance on the examination is successful, they will be licensed as a registered nurse.

Students who are LVNs and who are electing the Non-Degree 30 Unit Option, as well as students who do not complete the requirements for the Associate of Arts (AA) or the Associate of Science (AS) in Nursing but who successfully complete the required nursing and support courses, are eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX RN) as a NON-DEGREE Candidate. If successful, they will be licensed as a RN by the California Board of Registered Nursing. Endorsement of a non-degree graduate RN in other states is not guaranteed because these regulations are unique to California. ONCE THE LICENSING EXAM IS TAKEN, STATUS CANNOT BE CHANGED FROM NON-DEGREE TO DEGREE REGARDLESS OF SUBSEQUENT DEGREES EARNED.

CREDIT BY TRANSFER: Students who have been enrolled in an accredited Registered Nursing program within the last two years may receive full credit for courses transferred which are, as evaluated by the Palomar College Nursing Education Department faculty, comparable to courses offered by the College. If courses transferred are found not to be comparable, students may challenge Palomar courses for credit.

CREDIT BY EXAMINATION: Academic credit by examination may be obtained by those whose prior education and/or experience provides the knowledge and skills required to meet the objectives of one or more courses. Students who believe they may be eligible for credit by examination should contact the Nursing Education Department for an appointment for special advising prior to submitting their application for admission to the program. For College policy regarding credit by examination, consult "Credit by Examination" in the Academic Regulations and Standards section of this catalog.

Upon completion of the eligibility requirements, separate theory and clinical performance examinations will be administered for courses with a laboratory component. A written patient care plan is required in all appropriate theory and clinical courses. Completion of the written work with a grade of 'C' or better is required prior to taking the clinical examination. Courses without a lab component will have a written examination only. A grade of 'C' or better must be achieved. The Nursing Education Department's Credit by Examination Policy may be obtained from the Nursing Education Department Office. A maximum of 20 units may be obtained through credit by examination.

STUDENTS WITH A PREVIOUS BACHELOR'S DEGREE: As per the Education Code, SB 1393, students with baccalaureate or higher degrees from a regionally accredited college in a non-nursing field are only required to complete the course work necessary for completion of the registered nursing program, including prerequisites and nursing coursework. These students are not required to complete any other courses required by the college for an associate degree.

CONTINUING EDUCATION FOR NURSES
Continuing Education Units (CEUs) for currently licensed RNs and LVNs can be earned through a variety of Palomar College academic classes. CEU documentation can be awarded by the Community Development office upon successful completion of coursework. For information on CEU options for nurses call (760) 744-1150, ext. 2702.

PROGRAMS OF STUDY

Associate of Arts (AA) in Nursing

For students starting the Associate of Arts (AA) in Nursing during Fall 2010 or later:

Requirements for an AA in Nursing

MATH 56, 60, or an appropriate score on an approved math exam	0- 4
BIOL 102* Molecules and Cells or equivalent	3
MICR 200 Fundamentals of Microbiology	4
ZOO 200 Anatomy	4
ZOO 203 Physiology	4
Semester I	
NURS 117 Nursing I	9
NURS 103 Nursing Foundation I	2
Semester II	
NURS 118 Nursing II	9
NURS 203 Nursing Foundation II	1
Semester III	
NURS 217 Nursing III	9

Semester IV	
NURS 218 Nursing IV	9
Additional Related Support Courses	
ENG 100** English Composition	4
HUM Any course	3
PSYC Any course except 140 & 205	3
SOC Any course except 140 & 205	3
SPCH Any course except 145 & 150	3
One approved pair of American History and Institutions courses or an appropriate score on an approved American History and Institutions exam	0-6
The following additional requirements for an AA in Nursing degree are met by completion of the Nursing curriculum:	
Health and Physical Education requirement	0
Integrated Self and Life-Long Learning	0
Multicultural requirement (met by completing NURS 103 and/or NURS 110 and NURS 217)	0
TOTAL UNITS	**80**

*This biology prerequisite is required if the science courses are taken at Palomar College. Equivalent courses are delineated in the Biology section of the catalog.
**Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an AA in Nursing, students must receive a grade of 'C' or better.

AA in Nursing for LVNs

Advanced standing for LVNs is based on the following requirements:

- Hold a valid, active LVN license in the state of California.
- Graduate from an accredited LVN/LPN program.
- Meet all requirements for admission as identified in the College Catalog and the Nursing Education Department brochure.
- Successfully complete NURS 110.

Upon successful completion of NURS 110, the student has two academic years to enroll in the nursing program. If the student is unable to enroll within two academic years, for any reason other than lack of space in the program, the student will be required to repeat NURS 110.

Requirements for an AA in Nursing for LVNs

MATH 56, 60, or an appropriate score on an approved math exam	0- 4
NURS 110 LVN-RN Transition	2
BIOL 102* Molecules and Cells or equivalent	3
MICR 200 Fundamentals of Microbiology	4
ZOO 200 Anatomy	4
ZOO 203 Physiology	4
Semester I	
NURS 217 Nursing III	9
NURS 203 Nursing Foundation II	1
Semester II	
NURS 218 Nursing IV	9
Additional Related Support Courses	
ENG 100** English Composition	4
HUM Any course	3
PSYC Any course except 140 & 205	3
SOC Any course except 140 & 205	3
SPCH Any course except 145 & 150	3
One approved pair of American History and Institutions courses or an appropriate score on an approved American History and Institutions exam	0-6
The following additional requirements for the AA in Nursing degree for LVNs are met by completion of the Nursing curriculum:	
Health and Physical Education requirement	0
Integrated Self and Life-Long Learning	0
Multicultural requirement (met by completing NURS 103 and/or NURS 110 and NURS 217)	0
TOTAL UNITS	**62**

*This biology prerequisite is required if the science courses are taken at Palomar College. Equivalent courses are delineated in the Biology section of the catalog.
**Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an AA in Nursing, students must receive a grade of 'C' or better.

When the LVN student has successfully completed the AA in Nursing program, the student will be given credit for previous vocational nursing education equivalent to 18 units.

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Associate of Science (AS) in Nursing

For students starting the Associate of Science (AS) in Nursing during Fall 2010 or later:

Requirements for an AS in Nursing

MATH 56, 60, or an appropriate score on an approved math exam	0- 4
BIOL 102* Molecules and Cells or equivalent	3
MICR 200 Fundamentals of Microbiology	4
ZOO 200 Anatomy	4
ZOO 203 Physiology	4
Semester I	
NURS 117 Nursing I	9
NURS 103 Nursing Foundation I	2
Semester II	
NURS 118 Nursing II	9
NURS 203 Nursing Foundation II	1
Semester III	
NURS 217 Nursing III	9
Semester IV	
NURS 218 Nursing IV	9
Additional Related Support Courses	
ENG 100** English Composition	4
HUM Any course	3
PSYC Any course except 140 & 205	3
SOC Any course except 140 & 205	3
SPCH Any course except 145 & 150	3
The following additional requirements for the A.S. in Nursing Degree are met by completion of the Nursing curriculum:	
Health and Physical Education	0
Integrated Self and Life-Long Learning	0
Multicultural requirement (met by completing NURS 103 and/or NURS 110 and NURS 217)	0
TOTAL UNITS	**74**

*This biology prerequisite is required if the science courses are taken at Palomar College. Equivalent courses are delineated in the Biology section of the catalog.
**Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an AS in Nursing, students must receive a grade of 'C' or better.

AS in Nursing for LVNs

Advanced standing for LVNs is based on the following requirements:

- Hold a valid, active LVN license in the state of California.
- Graduate from an accredited LVN/LPN program.
- Meet all requirements for admission as identified in the College Catalog and the Nursing Education Department brochure.
- Successfully complete NURS 110.

Upon successful completion of NURS 110, the student has two academic years to enroll in the nursing program. If the student is unable to enroll within two academic years, for any reason other than lack of space in the program, the student will be required to repeat NURS 110.

Requirements for an AS in Nursing for LVNs

MATH 56, 60, or an appropriate score on an approved math exam	0- 4
NURS 110 LVN-RN Transition	2
BIOL 102* Molecules and Cells or equivalent	3
MICR 200 Fundamentals of Microbiology	4
ZOO 200 Anatomy	4
ZOO 203 Physiology	4
Semester I	
NURS 217 Nursing III	9
NURS 203 Nursing Foundation II	1
Semester II	
NURS 218 Nursing IV	9
Additional Related Support Courses	
ENG 100** English Composition	4
HUM Any course	3
PSYC Any course except 140 & 205	3
SOC Any course except 140 & 205	3
SPCH Any course except 145 & 150	3
The following additional requirements for an AS in Nursing Degree for LVNs are met by completion of the Nursing curriculum:	
Health and Physical Education requirement	0
Integrated Self and Life-Long Learning	0
Multicultural requirement (met by completing NURS 103 and/or NURS 110 and NURS 217)	0
TOTAL UNITS	**56**

*This biology prerequisite is required if the science courses are taken at Palomar College. Equivalent courses are delineated in the Biology section of the catalog.
**Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an AS in Nursing, students must receive a grade of 'C' or better.

When the LVN student has successfully completed the AS in Nursing program, the student will be given credit for previous vocational nursing education equivalent to 18 units.

Non-Degree 30 Unit Option for LVNs

Students who are LVNs and who are electing the Non-Degree 30 Unit Option are eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX RN) as a NON-DEGREE candidate. If successful, they will be licensed as an RN by the California Board of Registered Nursing. Endorsement of a Non-Degree graduate RN in other states is not guaranteed because these regulations are unique to California. ONCE THE LICENSING EXAM IS TAKEN, STATUS CANNOT BE CHANGED FROM NON-DEGREE TO DEGREE REGARDLESS OF SUBSEQUENT DEGREES EARNED.

Upon successful completion of NURS 110, the student has two academic years to enroll in the nursing program. If the student is unable to enroll within two academic years, for any reason other than lack of space in the program, the student will be required to repeat NURS 110.

A maximum of 30 units of nursing and support courses are required to fulfill the unit requirement for licensure by the Board of Registered Nursing.

Requirements for the Non-Degree 30 Unit Option	
ZOO 203 Physiology	4
MICR 200 Fundamentals of Microbiology	4
NURS 110 LVN RN Transition	2
Semester I	
NURS 217* Nursing III	9
NURS 203 Nursing Foundations II	1
Semester II	
NURS 218 Nursing IV	9
TOTAL UNITS	**29**

A 30 Unit Option student, with additional units in general education, may earn the Associate in Arts Degree in General Studies. Neither an Associate in Arts (AA) nor an Associate of Science (AS) in Nursing will be awarded.

AA or AS Degree in Nursing for Diploma RNs

- The student must present a valid active California RN license to be verified by the Nursing Education Department. A copy of the RN license must be submitted to the College's Records office for inclusion in the student's academic file.
- The student must have an official transcript of the diploma school coursework sent to the Nursing Education Department at Palomar College.
- Units accepted from diploma school: 38 units of the 39 units required for the major in Nursing at Palomar College may be accepted from the diploma school of nursing.
- One unit must be earned by completion of, or challenging of, NURS 203, Nursing Foundation II.
- When the student has completed the General Education requirements for either the Associate of Arts (AA) or the Associate of Science (AS) in Nursing and has completed the one unit required in Nursing, the student will be awarded credit for the 38 units of coursework completed in the diploma school of Nursing.

COURSE OFFERINGS

To remain in the program, students must maintain a minimum grade of 'C' in each of the nursing courses and in all required support courses. Grades in the clinical nursing laboratories are based on satisfactory/unsatisfactory practice. A student might fail a nursing course on the basis of clinical practice even though theory grades may be passing.

NURS 103 Nursing Foundation I (2)
2 hours lecture
Prerequisite: *Admission to the Associate Degree Nursing Program*
Corequisite: *NURS 117*
Note: *Graded only*
Transfer acceptability: *CSU*
This course provides an introduction to concepts essential to nursing practice. Topics include, but are not limited to, nursing process, critical thinking, therapeutic communication, and health assessment using a functional health patterns framework. Multicultural considerations including gender, ethnicity, sexuality, and age are explored.

NURS 110 LVN-RN Transition (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *Current California Vocational Nurse License*
Recommended preparation: *MATH 56 or 60, or the appropriate score on an approved math exam*
Note: *Graded only*
Transfer acceptability: *CSU*
This course facilitates the transition of the Licensed Vocational Nurse into the Associate Degree Nursing Program. Topics include, but are not limited to, nursing

process, critical thinking, health assessment utilizing evidence based interventions, and role differentiation. Multicultural considerations including ethnicity, gender, age, and sexuality are explored. Concepts essential for registered nursing practice and functional health patterns are examined.

NURS 117 Nursing I (9)
4 hours lecture-15 hours laboratory
Prerequisite: *Admission to the Associate Degree Nursing Program*
Corequisite: *NURS 103*
Note: *Graded only*
Transfer acceptability: *CSU*
This course focuses on theoretical concepts of nursing fundamentals and basic medical-surgical nursing. Concepts related to delegation, resource, and time management are introduced. Students apply therapeutic communication techniques when utilizing the nursing process, critical thinking, and evidence based interventions in the care of clients in the clinical setting. Students provide care to chronic stable medical-surgical adult clients with expected or predictable outcomes.

NURS 118 Nursing II (9)
4 hours lecture-15 hours laboratory
Prerequisite: *A minimum grade of 'C' in NURS 103 and 117*
Corequisite: *NURS 203*
Note: *Graded only*
Transfer acceptability: *CSU*
This course builds on Nursing 117 with the application of the nursing process and critical thinking in the care of childbearing families, pediatric, and medical-surgical clients. Theoretical content related to growth and development, child abuse, and human sexuality is included. Concepts are expanded to include the recognition of changes in clients with predictable outcomes. Emphasis is placed on client teaching and the integration of family members in the plan of care. Managerial concepts of delegation, collaboration, time management, and appropriate utilization of resources are developed.

NURS 120 Pharmacology for Nurses I (2)
2 hours lecture
Transfer acceptability: *CSU*
Basic concepts of pharmacology, pharmacokinetics, pharmacodynamics, drug interactions, and the nursing process related to neurologic and neuromuscular agents; analgesics and anti-inflammatory agents; eye, ear, and skin agents; respiratory agents; endocrine agents; gastrointestinal agents; and reproductive and gender-related agents.

NURS 121 Pharmacology for Nurses II (2)
2 hours lecture
Transfer acceptability: *CSU*
Basic concepts of pharmacology, pharmacokinetics, pharmacodynamics, drug interactions, and the nursing process related to anticonvulsive agents; antipsychotic agents; cardiovascular agents; renal agents; anti-infective agents; vaccinations; and antineoplastic agents.

NURS 140 Adult Health Assessment (1)
3 hours laboratory
Transfer acceptability: *CSU*
Basic concepts of health assessment to include interviewing and assessment techniques used to obtain a comprehensive health history from an adult and relating findings to the nursing process. Transcultural and adult developmental stage considerations are also included.

NURS 197 Nursing Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Nursing. See Class Schedule for specific topic offered. Course title will designate subject covered.

NURS 203 Nursing Foundation II (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in NURS 103 or 110 or a copy of a current, active California LVN license in good standing must be on file in the Nursing Education Office prior to registration for this class.*
Corequisite: *NURS 217 or 118*
Note: *Graded only*
Transfer acceptability: *CSU*
Builds on the foundation of Nursing 103 and 110. Critical thinking is utilized as a method to explore historical, political, educational, legal, ethical, and bioethical issues that impact nursing practice. Nursing organizations are researched via the internet with an emphasis on evaluation of nursing websites. Managerial concepts are introduced with a focus on decision making skills, managing resources, organizing time, delegating, and supervising care.

NURS 217 Nursing III (9)
4 hours lecture-15 hours laboratory
Prerequisite: *A minimum grade of 'C' in NURS 118 or admission to the Associate Degree Nursing Program (LVN-RN) or admission to the Non-Degree Program LVN-RN (30-unit option); and A minimum grade of 'C' in NURS 203, or concurrent enrollment in NURS 203*
Note: *Graded only*
Transfer acceptability: *CSU*
This course builds on the first year of the program as a process for the development of complex thinking and decision making while caring for medical-surgical, gerontologic, and psychiatric clients. Theoretical concepts are expanded to include identification and prioritization of evidence-based interventions for clients who have unpredictable outcomes or who demonstrate changes in health status. Students collaborate with the interdisciplinary team to manage and modify care of clients.

NURS 218 Nursing IV (9)
3½ hours lecture-16½ hours laboratory
Prerequisite: *A minimum grade of 'C' in NURS 203 and 217*
Note: *Graded only*
Transfer acceptability: *CSU*
This course builds on Nursing 217 expanding nursing practice and critical thinking in the promotion, maintenance, and restoration of health for a group of clients. Students use evidence-based interventions and complex decision-making when caring for acutely ill medical-surgical clients with unstable health problems. Students work collaboratively with the interdisciplinary team to manage and coordinate care for a group of clients. Emphasis is placed on student roles as coordinators, facilitators, and client advocates as they progress toward a competent entry level nursing practice.

NURS 295 Directed Study in Nursing (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of proposal by the department chairperson*
Note: *Pass/No Pass grading only; may be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU*
Designed for the student who has demonstrated a proficiency in nursing subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes. Additionally, this course can be used for students transferring into the Palomar College nursing program. Course work would fulfill needed content and/or clinical laboratory time to meet the requirements of the Associate Degree Nursing Program.

Nutrition

See Family and Consumer Sciences, Health

Oceanography (OCN)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G

COURSE OFFERINGS

OCN 100 Oceanography Lecture (3)
3 hours lecture
Note: *Not open to students with prior credit in OCN 101*

Transfer acceptability: CSU; UC – OCN 100/100L and 101 combined: maximum credit, 4 units
An introductory course designed to acquaint the student with general oceanography. Topics treated include the history and scope of oceanography, properties of sea water, ocean currents, ocean waves and tides, submarine morphology and geology, marine sediments, life in the sea, and the significance of the oceans to man.

OCN 100L Oceanography Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in OCN 100, or concurrent enrollment in OCN 100*
Note: *Not open to students with prior credit in OCN 101*
Transfer acceptability: *CSU; UC – OCN 100/100L and 101 combined: maximum credit, 4 units*
Laboratory and field investigations of marine environments including geologic, physical, chemical, and biological aspects of the ocean and coastal area. The course emphasizes changing physical factors and man's activities as they affect the oceans.

OCN 101 Oceanography (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in OCN 100 or 100L*
Transfer acceptability: *CSU; UC – OCN 100/100L and 101 combined: maximum credit, 4 units*
An introductory course in general oceanography including laboratory and field investigations of marine environments. Topics include: the history and scope of oceanography, properties of sea water, ocean currents, ocean waves and tides, submarine morphology and geology, life in the sea, and the significance of the oceans to man. Laboratory portion includes investigation of marine environments including geologic, chemical, physical, and biological aspects of the ocean and coastal area.

OCN 195 Regional Field Studies in Oceanography (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Extended field studies that examine the oceanography of selected regions. Emphasis is upon field observation, interpretation, and analysis of varying oceanographic phenomena including coastal processes and landforms, natural resources, marine ecosystems, coastal currents and weather patterns, tectonics and sea level history, and human impacts in the coastal environment.

OCN 197 Oceanography Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Oceanography. See Class Schedule for specific topic covered. Course title will designate subject covered.

OCN 295 Directed Study in Oceanography (1, 2, 3)
Arrange 3, 6, or 9 hours laboratory with department chairperson
Prerequisite: *A minimum grade of 'C' in OCN 100 or 101*
Note: *May be taken 4 times for a maximum of 6 units*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Individual study in field, library, or laboratory for interested students.

Office Information Systems (OIS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Administrative Assistant
- International Administrative Assistant
- Legal Secretary
- Medical Language Specialist
- Medical Office Management

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Administrative Assistant
- International Administrative Assistant
- Legal Secretary
- Medical Language Specialist
- Medical Office Management

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Data Entry
- Receptionist
- Virtual Assistant

PROGRAMS OF STUDY

Administrative Assistant

This program is designed to prepare the student for an administrative support office position in business and industry.

A Certificate of Achievement and/or an AA degree will be awarded to students who successfully complete the requirements listed below.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BUS 105	Bookkeeping Fundamentals	4
BUS 105L	Bookkeeping Electronic Spreadsheet Lab	.5
BUS 110	Business Mathematics	3
BUS 125	Business English	3
BUS 175	Excel Basic	1
BUS 180	Access for Business	1
BUS 185	PowerPoint for Business	1
BUS 186/ R CSIS 130	Microsoft Publisher	1
BUS 190	Internet for Business	1
BUS 195	Microsoft Office Integration	1
OIS 103	Advanced Keyboarding	1
OIS 115	Filing and Records Management	1
OIS 120	Intro to Office Information Systems	3
OIS 136.2	Word Intermediate	1
OIS 136.3	Word Advanced	1
OIS 205	Office Procedures	3
OIS 230	Secretarial Machine Transcription	1
CE 100	Cooperative Education	1, 2, 3, 4
	Demonstrate the ability to type 50 net words per minute for five minutes with 5 errors or less	0
TOTAL UNITS		**28.5 - 31.5**

Recommended Electives: BUS 187, BUS 188, 205

Credit for Certified Professional Secretary (CPS) Certification:
Individuals who hold a certificate as a Certified Professional Secretary (CPS) or Certified Administrative Professional (CAP) may apply to the Business Administration/Office Information Systems Department for units toward an Administrative Assistant Associate of Arts Degree. The units granted, with a grade of "CR", will be posted to the student's transcript upon completion of the remaining A.A. degree requirements. Students must provide evidence of successful completion of the CPS or CAP certification.

Data Entry

Provides a program to prepare the student for an entry-level data entry position.

A Certificate of Proficiency will be awarded to students who successfully complete the requirements listed below.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
OIS 101	Beginning Keyboarding	2
OIS 108	Data Entry Skills I	1
OIS 109	Data Entry Skills II	1
OIS 115	Filing and Records Management	1
OIS 136.1	Word Basic	1
OIS 136.2	Word Intermediate	1
	Demonstrate the ability to key from average copy at a minimum speed of 10,000 strokes per hour with an error rate not to exceed 0.5%	0
TOTAL UNITS		**7**

International Administrative Assistant

This program is designed to prepare the student for entry-level office work in a bilingual business environment.

A Certificate of Achievement and/or an A.A. degree will be awarded to students who successfully complete the requirements listed below.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
IBUS 100	Intro to Int'l Business and Management	3
IBUS 105	International Marketing	3
IBUS 110	Cultural Environment/Int'l Business	3
BUS 125	Business English	3
BUS 175	Excel Basic	1
BUS 180	Access for Business	1
BUS 185	PowerPoint for Business	1
BUS 190	Internet for Business	1
OIS 102	Intermediate Keyboarding	2
OIS 115	Filing and Records Management	1
OIS 120	Intro to Office Information Systems	3
OIS 136.1	Word Basic	1
OIS 136.2	Word Intermediate	1
OIS 205	Office Procedures	3
CE 100	Cooperative Education	1, 2, 3, 4
	Demonstrate the ability to type 50 net words per minute for five minutes with 5 errors or less	0
TOTAL UNITS		**28 – 31**

Recommended Electives: BUS 186/R CSIS 130, BUS 188, 205

Legal Secretary

Provides a program to prepare the student for entry-level legal office work.

A Certificate of Achievement and/or an A.A. degree will be awarded to students who successfully complete the requirements listed below.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BUS 125	Business English	3
BUS 205	Business Writing	3
OIS 102	Intermediate Keyboarding	2
OIS 103	Advanced Keyboarding	1
OIS 115	Filing and Records Management	1
OIS 120	Intro to Office Information Systems	3
OIS 136.1	Word Basic	1
OIS 136.2	Word Intermediate	1
OIS 210	Law Office Procedures I	3
OIS 232.1	Legal Machine Transcription Basic	1
OIS 232.2	Legal Machine Transcription Advanced	1
LS 121	Introduction to Law	3
CE 100	Cooperative Education	1-4
	Demonstrate the ability to type 60 net words per minute for five minutes with 5 errors of less	0
TOTAL UNITS		**24 - 27**

Recommended Electives: BUS 105 and 105L, 110, 115, 175, 180, 185; LS/PLS 245

Credit for California Certified Legal Secretary (CCLS) Certification: Individuals who hold a certificate as a California Certified Legal Secretary (CCLS) may apply to the Business Administration Department for units toward a Legal Secretary A.A. Degree. The units granted, with a grade of "CR," will be posted to the student's transcript upon completion of the remaining Associate of Art's degree. Eligibility for the units will be determined by the Office Information Systems staff, extension 2498. Students must provide evidence of successful completion of the California Certified Legal Secretary.

Medical Language Specialist

Prepares students for entry-level employment as a medical transcriptionist by providing the basic knowledge, understanding, and skills required to transcribe healthcare dictation and prepare patient care documents with accuracy, clarity, consistency, and timeliness, applying the principles of professional and ethical conduct.

A Certificate of Achievement and/or an A.A. degree will be awarded to students who successfully complete the requirements listed below.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
MA 55	Medical Terminology and Anatomy	3
MA 56	Medical Terminology and Anatomy	3
BUS 125	Business English	3
OIS 102	Intermediate Keyboarding	2
OIS 103	Advanced Keyboarding	1
OIS 120	Intro to Office Information Systems	3
OIS 136.1	Word Basic	1
OIS 136.2	Word Intermediate	1
OIS 220	Medical Transcription Procedures	3
OIS 231.1	Medical Machine Transcription I	1
OIS 231.2	Medical Machine Transcription II	1
OIS 231.3	Medical Machine Transcription III	1
OIS 231.4	Medical Machine Transcription IV	1
CE 100	Cooperative Education	1, 2, 3, 4
	Demonstrate the ability to type at least 50 net words per minute for five minutes with 5 errors or less	0
TOTAL UNITS		**25 – 28**

Medical Office Management

Provides preparation for a career as an assistant office manager in a medical setting. This certificate is the capstone program for students who have successfully completed a certificate program in Medical Office Specialist, Medical Administrative Assistant, or Medical Assisting.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 108	Managerial Accounting	4
BUS 117	Legal Environment of Business	3

BMGT 110	Human Resource Management	3
BMGT 115	Organizational Theory and Design	5
BMGT 125	Introduction to Labor Relations	3
BMGT 130	Management/Leadership Issues	3
OIS 225	Managing the Medical Office	3
TOTAL UNITS		**22**

Recommended Electives: BUS 186 /R CSIS 130, BUS 188

Receptionist

This program is designed to prepare the student for an entry-level receptionist position.

A Certificate of Proficiency will be awarded to students who successfully complete the requirements listed below.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
BUS 175	Excel Basic	1
BUS 190	Internet for Business	1
OIS 102	Intermediate Keyboarding	2
OIS 115	Filing and Records Management	1
OIS 120	Intro to Office Information Systems	3
OIS 136.1	Word Basic	1
OIS 136.2	Word Intermediate	1
OIS 205	Office Procedures	3
	Demonstrate the ability to type at least 45 net words per minute for five minutes with 5 errors or less	0
TOTAL UNITS		**13**

Virtual Assistant

Prepares students to develop a business as a Virtual Assistant, defined as an independent entrepreneur providing administrative, creative, and/or technical services to clients in a virtual environment.

In order to earn this certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses. It is assumed that students possess strong written and oral communication skills, advanced keyboarding skills, and basic computer knowledge.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
BMGT 105	Small Business Management	3
BUS 138	Business Ethics	2
BUS 155	Marketing	3
BUS 171	Word for Business – Advanced	1
BUS 175	Excel Basic	1
BUS 180	Access for Business	1
BUS 185	PowerPoint for Business	1
BUS 186/ R CSIS 130	Publisher for Business	1
BUS 190	Internet for Business	1
OIS 125	Creating the Virtual Office	3
	Demonstrate the ability to type a minimum of 50 net words per minute for five minutes with five errors or less	0
TOTAL UNITS		**17**

Recommended Electives: BMGT 130; BUS 105 and 105L, 115, 142, 150, 176, 177, 187; OIS 205

COURSE OFFERINGS

OIS 101 Beginning Keyboarding (2)
6 hours laboratory
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
A beginning course in keyboarding on the computer. Class includes learning to keyboard alphabetic, numeric, and symbol keys by touch; developing speed and accuracy in straight copy writing; and keyboarding business documents such as letters, reports, memos, and simple tables.

OIS 102 Intermediate Keyboarding (2)
6 hours laboratory
Recommended preparation: *A minimum grade of 'C' in OIS 101 or a keyboarding speed of 30 net words per minute*
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
The continual development of higher speed and accuracy timed writing goals from OIS 101 and the emphasis on production of a variety of more complicated business letters, documents and forms.

OIS 103 Advanced Keyboarding (1)
Students arrange 32 hours lecture/laboratory with instructor for self paced completion of course.
Recommended preparation: *A minimum grade of 'C' in OIS 102 or a keyboarding speed of 45 net words per minute*
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Technique building, special speed building, and control building practices designed to develop and improve straight-copy performance.

OIS 108 Data Entry Skills I (1)
Course requires 32 hours lecture/laboratory
Recommended preparation: *A minimum grade of 'C' in OIS 101 or a keyboarding speed of 30 net words a minute*
Note: *May be open entry/open exit*
Development of 10 key touch on the computer numeric keypad. Development and measurement of speed and accuracy in executing keyboard functions applied to a variety of data entry formats.

OIS 109 Data Entry Skills II (1)
Course requires 32 hours lecture/laboratory
Recommended preparation: *A minimum grade of 'C' in OIS 108*
Note: *May be open entry/open exit*
Continued speed and accuracy development of 10-key touch on the computer numeric keypad, measurement of speed and accuracy in executing keyboard functions, and development of logical thinking and decision-making skills applied to a variety of forms.

OIS 115 Filing and Records Management (1)
Students arrange 32 hours lecture/laboratory with instructor for self paced completion of course.
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Training in principles of filing and records management. Study and practice in filing by the alphabetic, numeric, geographic, and subject methods.

OIS 120 Introduction to Office Information Systems (3)
3 hours lecture
Note: *Offered in the fall semester, day only; spring semester, night only*
Transfer acceptability: *CSU*
How automation has changed and restructured the modern office and the specific role technology is playing in that change. Topics covered will include computer fundamentals, key software applications, electronic communications, creation of basic web pages, networking, distance learning, and careers. At the conclusion of this course, students will be prepared to take the IC3 certification.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

OIS 125 Creating the Virtual Office (3)
3 hours lecture
An overview course for Virtual Assistants who provide administrative, creative, and/or technical services to clients in a virtual environment. Topics will include naming, organizing, and managing your virtual business; financial planning; time management; evaluating, buying and using technology; domain registration; marketing and promoting the virtual business; how and where to find clients; and business ethics.

OIS 136.1 Word Basic (1)
Recommended preparation: *A minimum grade of 'C' in OIS 102 and 120*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Hands-on application with Microsoft Word. Students will create, save, close, open, edit, and print a variety of business documents utilizing the following software features: finding and replacing text; moving and copying text; spell, thesaurus, grammar, and auto text; character, paragraph, page, and document formatting; envelopes; tables; columns; headers/footers; smart tags; basic desktop publishing; and borders and special characters. The Class Schedule will designate software version covered.

OIS 136.2 Word Intermediate (1)
Recommended preparation: *A minimum grade of 'C' in OIS 136.1*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Refinement of the basic skills learned in OIS 136.1 and practice with the more sophisticated features of Word on multi-page documents including advanced document formatting, merge and labels; hyperlinks; styles and templates; outlines; footnotes and endnotes; comparing and merging documents; linking and embedding objects; charts; Microsoft Office integration; and basic web page design. In addition, more advanced printing and file management techniques will be explored. The Class Schedule will designate software version covered.

OIS 136.3 Word Advanced (1)
Recommended preparation: *A minimum grade of 'C' in OIS 136.2*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Refinement of the skills learned in OIS 136.2 and practice with the advanced features of Word applied to a variety of multi-page business documents including advanced file management; macros; customizing Word; on-screen forms; master and sub documents; tracking changes; index and table of contents; and bookmarks and cross references. The Class Schedule will designate software version covered.

OIS 136.4 Word Special Projects (1)
Recommended preparation: *A minimum grade of 'C' in OIS 136.3*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Designed to aid the student in producing individual projects utilizing the most recent version of Word. Content will be decided between the student and the instructor under a signed contract.

OIS 197 Office Information Systems Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU*
Topics in Office Information Systems. See Class Schedule for specific topic offered. Course title will designate subject covered.

OIS 205 Office Procedures (3)
2 hours lecture - 3 hours laboratory
Recommended preparation: *A minimum grade of 'C' in OIS 102*
Note: *Offered in fall semester, night only*
Transfer acceptability: *CSU*
The role of support personnel in today's office, including topics in human relations, job attitudes, and public relations; basic administrative support skills and applied procedures; practical application of office technologies; applied records management; meeting, travel, and conference planning; management and supervision skills; company politics and ethics; and changing job roles. The last six weeks of the course simulates work in either a general or medical office, depending on the student's major field of study.

OIS 210 Law Office Procedures (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in OIS 102 and LS 121 or PLS 121*
Note: *Offered in fall semester, night only*
Transfer acceptability: *CSU*
Specialized vocabulary and training for the legal secretary, legal assistant, or paralegal including legal terminology, basic legal office procedures, basic court structure and procedures, legal document preparation, fast-track rules, automated legal office procedures, and legal research.

OIS 220 Medical Transcription Procedures (3)
3 hours lecture
Designed for the medical transcription major. Topics include career information, ethical and legal issues in medical transcription, applied English skills, and techniques for the preparation of a variety of medical reports.

OIS 225 Managing the Medical Office (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in BMGT 101*
Transfer acceptability: *CSU*
Strategies for managing the medical office including the health care professional's roles and responsibilities; application of sound business practices including personnel management, financial administration, and auditing procedures; ethical and legal issues in health care; OSHA regulations, medical documentation guidelines, and compliance standards; technology; and, health insurance.

OIS 230 Secretarial Machine Transcription (1)
Course requires 32 hours lecture/laboratory
Recommended preparation: *A minimum grade of 'C' in OIS 102*
Transfer acceptability: *CSU*
Note: *May be open entry/open exit.*
Techniques of transcribing dictation from a variety of business documents using transcription equipment. Designed for the Office Information Systems - Administrative Assistant major.

OIS 231.1 Medical Machine Transcription I (1)
Recommended preparation: *A minimum grade of 'C' in OIS 102 and 220; MA 55 and 56*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit*
Transfer acceptability: *CSU*
Basic techniques for transcribing medical dictation from transcription equipment. Medical terminology from the SUM tapes related to the introduction of medical transcription, reports, and dermatology will be included. Designed for the Office Information Systems -- Medical Language Specialist major.

OIS 231.2 Medical Machine Transcription II (1)
Recommended preparation: *A minimum grade of 'C' in OIS 231.1*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit*
Transfer acceptability: *CSU*
Continued development of techniques for transcribing medical dictation from transcription equipment. Medical terminology from the SUM tapes related to urology, gastroenterology, and orthopedics will be included. Designed for the Office Information Systems -- Medical Language Specialist major.

OIS 231.3 Medical Machine Transcription III (1)
Recommended preparation: *A minimum grade of 'C' in OIS 231.2*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit*
Transfer acceptability: *CSU*
Continued development of techniques for transcribing medical dictation from transcription equipment. Medical terminology from the SUM tapes related to cardiology, pulmonary, endocrinology, and obstetrics/gynecology will be included. Designed for the Office Information Systems - Medical Language Specialist major.

OIS 231.4 Medical Machine Transcription IV (1)
Recommended preparation: *A minimum grade of 'C' in OIS 231.3*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit*
Transfer acceptability: *CSU*
Continued development of techniques for transcribing medical dictation from transcription equipment. Medical terminology from the SUM tapes related to otorhinolaryngology, ophthalmology, neurology, and pharmacology will be included. Designed for the Office Information Systems - Medical Language Specialist major.

OIS 232.1 Legal Machine Transcription Basic (1)
Recommended preparation: *A minimum grade of 'C' in OIS 102 and 210*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit*
Transfer acceptability: *CSU*
Techniques of transcribing legal dictation from transcription equipment. Terminology includes the areas of the lawsuit, family law, and wills and probate. Designed for the Office Information Systems Legal Secretary major.

OIS 232.2 Legal Machine Transcription Advanced (1)
Recommended preparation: *A minimum grade of 'C' in OIS 232.1*
Note: *Requires 32 hours lecture/laboratory; may be open entry/open exit*
Transfer acceptability: *CSU*
Advanced transcription techniques and skill development of multi page documents and specialized legal reports. Terminology includes the areas of corporations, real estate, and criminal law. Designed for the Office Information Systems Legal Secretary major.

Paralegal Studies (PLS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

The Paralegal Studies courses are under review. For current information, please contact the Business Administration Department, or consult the Legal Studies Program.

COURSE OFFERINGS

PLS 110 Computer Skills for the Legal Profession (2)
4 hours lecture/laboratory
Note: *Cross listed as LS 110*
Transfer acceptability: *CSU*
A comprehensive hands-on study of computer software applications in the legal environment to include Word, Excel, Access, PowerPoint, PDF files, scanning, internet literacy and specific legal software.

PLS 121 Introduction to Law (3)
3 hours lecture
Note: *Cross listed as LS 121*
Transfer acceptability: *CSU; UC - BUS 115, 116, 117, LS 121, PLS 121 combined: maximum credit, one course.*
An introduction to law and the legal system. Includes an examination of the federal and state court system, criminal law, civil law, administrative law, and procedural law.

PLS 170 Alternative Dispute Resolution (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS/PLS 121*
Note: *Cross listed as LS 170*
Transfer acceptability: *CSU*
Alternative Dispute Resolution (ADR) utilizes various processes to settle disputes without a court adjudication, i.e., an alternative to civil dispute resolution. This course will review minitrial, settlement conference, conciliation, and emphasize negotiation mediation, and arbitration. The role of the paralegal in ADR will be addressed and a review of the essential laws.

PLS 190 Clinical Studies (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in LS/PLS 121*
Note: *Cross listed as LS 190; may be taken 3 times*
Transfer acceptability: *CSU*
This course provides the student with an opportunity to gain practical work experience within the legal field. The student will complete 120 hours of work at the internship site and attend three seminars during the semester that will focus on transitioning to the work force.

PLS 240 Civil Liberties and Procedures (3)
3 hours lecture
Recommended preparation: *ENG 50 or eligibility for ENG 100*
Note: *Cross listed as LS 240*
Transfer acceptability: *CSU; UC*
The study of the Bill of Rights and Supreme Court decisions focusing on civil rights and liberties. This area of constitutional law exams the relationship between individuals and government. Emphasis is on minority issues such as privacy, personal freedom, political equality, and first amendment jurisprudence.

PLS 261 Torts and Personal Injury (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS/PLS 121*
Recommended preparation: *PLS 160*
Transfer acceptability: *CSU*
An overview of substantive tort law with an emphasis on procedure. An examination of negligence and an overview of insurance law, to include forms, and the preparation of an actual case for arbitration and trial.

PLS 290 Contemporary Legal Issues (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS 105*
Note: *Cross listed as LS 290*
Transfer acceptability: *CSU*
Contemporary legal issues will be explored by leading experts in the field via TV broadcasts. Seminars will be conducted for the purpose of further developing legal issues and completing a research project. Students will be encouraged to submit research projects to AAFPE for publication in the American Association for Paralegal Education Law Journal. This capstone course focuses on advanced legal writing, analysis, and research.

Philosophy (PHIL)

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2330
Office: W-1

COURSE OFFERINGS

PHIL 100 Philosophical Theories Ethical and Political Values (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to philosophical thinking through the study of ethical and political values using a combination problem and historical approach. Relations between philosophical problems and those of science, society, and ordinary life are stressed. Both classical and modern reading sources are used.

PHIL 101 Philosophical Theories - Knowledge and Reality (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introductory course to philosophical problems emphasizing methodology and the fundamental problems of knowledge and reality. Detailed consideration is to be given to the empirical method and to rationalism. Readings are taken from both classical and contemporary sources.

PHIL 102 Reasoning About Philosophical Issues (3)
3 hours lecture
Recommended preparation: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Introduction to the relationship of language to logic, with applications of analysis, criticism, inductive and deductive reasoning and kinds of evidence to philosophical problems.

PHIL 103 Philosophy of Human Nature (3)
3 hours lecture
Recommended preparation: *College level reading and writing skills.*
Transfer acceptability: *CSU; UC*
This is a survey course of theories of human nature and their presuppositions and implications. Presuppositions about human nature underlie religious, political, ethical, psychological, sociological, and scientific theories and contemporary debates in these fields. Students will read primary texts drawn from various disciplines, cultures, and/or historical periods with the goals of understanding the theories of human nature and learning how to critically evaluate them.

PHIL 105 Philosophy of Religion (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A critical consideration of selected perennial and modern problems: definition and role of religion and religious experience, mysticism, grounds for religious beliefs, and religious ethics. Students will be urged to evaluate critically their views of religion and their own religious beliefs. Both Eastern and Western religions will be considered.

PHIL 110 Asian Philosophies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A critical examination of the philosophies which originated in Asia, including consideration of the practices which are associated with these belief systems. Several theories of meditation will be discussed. Some comparisons will be made to western attitudes and beliefs.

PHIL 115 Critical Thinking (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 100*
Transfer acceptability: *CSU; UC*
Development of skills for critical thinking including open-mindedness, functions and wayward uses of language, informal fallacies, hypotheses and inductive reasoning, and elementary deductive inference forms. Basic communication skills, especially written, are developed and a critical perspective on world views is emphasized.

PHIL 120 Logic (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An analysis of arguments and the cognitive functions of language through the use of modern symbolic techniques.

PHIL 130 Contemporary Philosophical Movements (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
A critical examination of philosophical movements that has influenced 20th Century views of the individual, society and reality, such as Existentialism, Marxism, Pragmatism and Transcendentalism. The movement of thought will be approached as an attempt to deal reflectively with certain problems of living in the modern world. The philosophy studied will vary from semester to semester.

PHIL 135 Pre Renaissance Western Philosophy (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Major Western philosophical views from the early Greeks through the 14th Century. Original philosophical works of the periods will be studied and evaluated through critical thinking and writing.

PHIL 136 Renaissance and Modern Western Philosophy (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Major Western philosophical views from the Renaissance to the present. Original philosophical works of the periods will be studied and evaluated through critical thinking and writing.

PHIL 197 Philosophy Topics (.5-6)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Philosophy. See Class Schedule for specific topic covered. Course title will designate subject covered.

PHIL 250 Philosophy in Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of philosophical concepts as they appear in the academic and nonacademic writings of philosophers, and in related writings by nonphilosophers. The writings are examined from the perspectives of both philosophical analysis and cultural context. The works and thinkers studied vary from semester to semester. See the class schedule for the current semester's theme.

PHIL 295 Directed Study in Philosophy (1, 2, 3)
1, 2, or 3 hours lecture
Prerequisite: *Enrollment subject to project approval*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
An individualized or group project in philosophy of any nature approved by, and under the personal supervision of, the instructor.

Photography (PHOT)

See also Journalism

Contact the Communications Department for further information.
(760) 744-1150, ext. 2440
Office: U-12
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Digital Imaging
- Photography

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Digital Imaging
- Photography

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Commercial Photography
- Fine Art Photography

PROGRAMS OF STUDY

Commercial Photography

This Certificate is designed to provide an avenue for those students interested in pursuing a career as a professional photographer in the areas of advertising photography, product photography, portrait and wedding photography, photojournalism, editorial and documentary photography and other photo related vocations. Courses address technique, aesthetics, ethics and business practices. See course description for specific topics and prerequisites.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
PHOT/ JOUR 140*	Photojournalism	3.5
PHOT 209*	Photographic Portfolio	2
PHOT 220*	Commercial Photography	3.5
PHOT 225*	Photographic Portraiture	3
PHOT 230*	Digital Darkroom	3
TOTAL UNITS		**15**

*This course has a prerequisite.

Digital Imaging

Prepares students for entry-level position as creator and processor of digital imagery. Layout and creative position in multimedia, internet publishing, digital video, publishing, photography, and motion graphics.

Digital imaging is one of the basic requirements for all electronic communication delivery systems.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 122	Painter I	4
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
GCIP 141	Digital Imaging/Photoshop II	4
GCIP 240	Digital Imaging/Photoshop III	4
GCMW 203	Web Multimedia	4
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
PHOT 100	Elementary Photography	3.5
PHOT 230	Digital Darkroom I	3
TOTAL UNITS		**34.5**

Digital Imaging A.A. Degree Major or Certificate of Achievement is also listed under Graphic Communications - Imaging and Publishing.

Fine Art Photography

This certificate is designed to provide an avenue for those students interested in pursuing a career as a fine art photographer. The course work will address a range of technical issues, personal expression, aesthetics, criticism, portfolio development, business practices, and history. See course description for specific topics and prerequisites.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
PHOT 125	History and Criticism of Photography	3
PHOT 201	Elementary Color Negative Printing	3
PHOT 209	Photographic Portfolio	2
PHOT 210	Advanced Black and White Photography	3
PHOT 215	Creative Photography	3
PHOT 216	Alternative Photographic Processes	3
TOTAL UNITS		**17**

Photography

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
PHOT 100	Elementary Photography	3.5
PHOT 105	Intermediate Black/White Photography	3.5
PHOT 125	History/Criticism of Photography	3
PHOT/ JOUR 140	Photojournalism	3.5
PHOT 201	Elementary Color Negative Printing	3
PHOT 210	Advanced Black and White Photography	3
PHOT 220	Commercial Photography	3.5
PHOT 225	Photographic Portraiture	3
PHOT 230	Digital Darkroom I	3
GCIP/ R GCIP 140	Digital Imaging/Photoshop I	4
Electives (Select a minimum of 6 units)		
PHOT 50	Digital Camera	3
PHOT 110	Basic 35mm Color Photography	3
PHOT 115	Creative 35mm Color Photography	3
PHOT 150	Digital Photography I	3
PHOT 170	Photo and Photographers of California	3
PHOT 197A or	Photography Topics: Field Studies	
PHOT 197B or	Photo Topics: Technical Studies	
PHOT 197C	Photographic Topics: General	1, 2, 3
PHOT 202	Intermediate Color Printing	3
PHOT 203	Color Printing Workshop	2
PHOT 209	Photographic Portfolio	2
PHOT 212	Landscape Photography	2
PHOT 215	Creative Photography	3
PHOT 216	Alternative Photo Processes	3
PHOT 296	Special Projects	1, 2, 3
TOTAL UNITS		**39**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

PHOT 50 Digital Camera (3)
3 hours lecture
Principles and use of digital cameras for beginners. Understand how your digital camera works and what the menu selections mean. Learn to download image files to your computer, make basic editing changes and how to share your images via web, email and slide presentations. The aesthetics and technology of digital photography will be discussed in lecture and critique sessions of student assignments.

PHOT 100 Elementary Photography (3.5)
7 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Introduction to the mechanics, optics, chemistry, lighting principles, and practices of elementary photography. Explores the history, aesthetics, and the conceptualization of photographic imagery. Includes darkroom procedures in developing, printing, and finishing black and white photographic materials.

PHOT 105 Intermediate Black and White Photography (3.5)
7 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100*
Transfer acceptability: *CSU; UC*
This course continues the study of the art and techniques associated with black and white photography. Problems relating to small and medium format camera systems and optics will be identified and compared. Further refinement in darkroom procedures and aesthetics will be explored.

PHOT 110 Basic 35mm Color Photography (3)
3 hours lecture
Transfer acceptability: *CSU*
An introduction to 35mm color slide photography including materials, techniques, and composition. Field trips, critiques, and discussions will be held on assigned topics. No darkroom laboratory.

PHOT 115 Creative 35mm Color Photography (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in PHOT 100, 105, or 110*
Transfer acceptability: *CSU*
Use of the 35mm camera and color films applied to creative solutions to problems relating to color, texture, line, form, and composition. Critique and discussion on assigned subjects. No darkroom laboratory.

PHOT 125 History and Criticism of Photography (3)
3 hours lecture
Transfer acceptability: *CSU; UC – PHOT 125 and 170 combined: maximum credit, one course*
A survey of the history of photography from its invention to modern times and its development as an art and communication medium. Examines important photographers, their lives and works, in order to establish a critical understanding of photography and its place in our culture.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

PHOT 140 Photojournalism (3.5)
7 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or 110*
Note: *Cross listed as JOUR 140*
Transfer acceptability: *CSU*
A study of the history and practice of photojournalism, providing specific application through photographing for The Telescope, Palomar College's newspaper. Student must provide own camera.

PHOT 150 Digital Photography I (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Lecture and laboratory activities will permit each student to discover the applications of electronic imaging for still photographers. Emphasis is placed on digital camera capture, image editing and quality digital output. The aesthetics and technology of digital photography will be discussed in lecture and critique sessions.

PHOT 155 Digital Photography II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 150*
Transfer acceptability: *CSU*
This is an intermediate level digital photography class which emphasizes solving photographic problems in-camera. Image editing skills are refined using current image editing software. This class will output photographic work to print via high quality inkjet printers. Aesthetic considerations and visual literacy continue to be emphasized during assignment critiques.

PHOT 170 The Photography and Photographers of California (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – PHOT 125 and 170 combined: maximum credit, one course*
A survey and comparison of past and present California photographers and their work. An analysis of their philosophies and practices as it applies to the execution of photography as both an art and communication medium. There are numerous visitations with established photographers and galleries. Usually will require one trip of several days outside of the local area.

PHOT 197A Photography Topics: Field Studies (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Photography, Field Studies. See Class Schedule for specific topic offered. Course title will designate subject covered.

PHOT 197B Photography Topics: Technical Studies (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Photography, Technical Studies. See Class Schedule for specific topic offered. Course title will designate subject covered.

PHOT 197C Photography Topics: General (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Photography, General. See Class Schedule for specific topic offered. Course title will designate subject covered.

PHOT 201 Elementary Color Negative Printing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Transfer acceptability: *CSU*
An introduction to the techniques and aesthetics of color negative printing. History, materials, processes, and vision will be explored.

PHOT 202 Intermediate Color Printing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 201*
Transfer acceptability: *CSU*
A continuation of PHOT 201 with an emphasis on refined color printing skills. Color theory, image content, and printing excellence as well as contemporary issues will be stressed.

PHOT 203 Color Printing Workshop (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 201*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
A continuing investigation of the creative uses of color negative and positive processes using portfolio and book projects to refine color skills. Emphasis on concepts and techniques in color. Students will be required to employ their developing visual literacy, analytical skills and subjective thought.

PHOT 209 Photographic Portfolio (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Methods of portfolio design and production, goal setting, market research, resumes, artist statements, cover and inquiry letters and self-promotion for a range of career, scholastic and artistic purposes. Students will be required to employ their developing visual literacy, analytical skills and subjective thought. Field trips and classroom visits by working professionals will be incorporated.

PHOT 210 Advanced Black and White Photography (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Transfer acceptability: *CSU; UC*
An exploration of the creative and technical possibilities of the View Camera through various assignments aimed at developing a personal style and approach to the production of quality black and white photography. A study of the relationship between film exposure and development and its application in the "zone system" is stressed.

PHOT 212 Landscape Photography (2)
5 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
A survey and comparison of past and present landscape photography. An analysis of different philosophies and approaches as it applies to different locations. Usually will require one trip of several days outside of the local area.

PHOT 215 Creative Photography (3)
7 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100*
Transfer acceptability: *CSU; UC*
Exploration of photography as an art form using both conventional and non conventional silver and non silver processes to permit broad variations and approaches to photographic expression.

PHOT 216 Alternative Photographic Processes (3)
7 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Transfer acceptability: *CSU*
A practical, hands-on survey of historical alternatives and contemporary variations to the modern standard photographic process. Silver, Ferric, Dichromate, and Photomechanical possibilities for self expression will be explored. Typical processes learned will include Van Dyke, Cyanotype, Platinum and Palladium Kallitype, Bromoil, and gum printing.

PHOT 220 Commercial Photography (3.5)
7 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Transfer acceptability: *CSU*
Considerations of professional technical fundamentals in lighting, film, camera systems, and management as applied in studio and location photography for commercial, advertising, and promotional purposes.

PHOT 225 Photographic Portraiture (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Transfer acceptability: *CSU*
Techniques and styles of photographic portraiture. Studio and non studio applications will be explored using black and white and color films. Emphasis on lighting equipment and techniques.

PHOT 230 Digital Darkroom I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140, PHOT 100 and PHOT 150*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
The technology of digital photography, the computer, and inkjet printers. Emphasis on industry standard image editing software as the primary photographic processing and manipulation tools. Continuing instruction in digital image processing directed toward photographic output. Development of capabilities and use of the digital darkroom.

PHOT 235 Digital Darkroom II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 230*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
This course is a continuing investigation into the technology, theory and aesthetics of digital photography with instruction on advanced digital image processing from a photographic perspective. Emphasis will be on; creating outstanding imagery, perfecting output through the advance use of image editing software, advancing visual literacy.

PHOT 296 Special Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Requires demonstrated proficiency in photography and the creative ability and initiative to work independently on a particular sustained project which does not fit in the context of regularly scheduled classes. Could include portfolio preparation.

Physical Education (PE)

See also Athletics and Competitive Sports

Contact the Physical Education Department for further information.
(760) 744-1150, ext. 2462
Office: O-10
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Physical Education

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Adult Fitness/Health Management

PROGRAMS OF STUDY

Adult Fitness/Health Management

Training for fitness instructors and lifestyle educators in designing, implementing and managing a variety of health/fitness programs.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
BMGT 105	Small Business Management	3
BUS 140	Selling for Business	3
CSIT 105	Computer Concepts and Applications	3
FCS/HE 165	Fundamentals of Nutrition	3
HE 100	Health Education and Fitness Dynamics	3
HE 100L	Health Performance Lab	1-2
PE 104/EME 100	Advanced First Aid	3
PSYC 100	Introduction to Psychology	3
ZOO 203	Physiology	4
CE 100	Cooperative Education	2-4
Group I (Select a minimum of 3 units)		
ENG 100	English Composition	4
MATH 120	Elementary Statistics	3
SPCH 100	Oral Communication	3
Group II (Select a minimum of 3 units)		
FCS 170	Nutrition: Eating Disorders and Obesity	3
PSYC 115	Psychology of Personal Growth and Development	3
PSYC 210	Physiological Psychology	4
SOC 125/ PSYC 125	Human Sexuality	3
Group III (Select a minimum of 3 units)		
PE 100	Introduction to Physical Education	2
PE 125	Physical Fitness	1-2
PE 128	Wellness Activities	1-2
PE 129	Aerobics/Step	1-2
PE 151	Intermediate Weight Training	1-1.5
PE 165	Coed Softball	1-1.5
PE 168	Soccer	1-1.5
PE 231	Water Safety Instruction	3
PE 232	Teaching Swimming	1-1.5
TOTAL UNITS		**37 - 40**

Physical Education

Provides the student with background to begin upper division coursework and serves as preparation for entry level jobs in health clubs, non-credentialed physical education and coaching positions, and as recreation aides. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. DEGREE MAJOR

Program Requirements		Units
HE 100	Health Education and Fitness Dynamics	3
HE 100L	Health Performance Lab	1-2
HE/FCS 165	Fundamentals of Nutrition	3
PE 100	Introduction to Physical Education	2
PE 104/EME 100	Advanced First Aid	3
PE 129	Aerobics/Step	1-1.5
PE 231	Water Safety Instruction	3
PSYC 100	Introduction to Psychology	3
ZOO 200	Anatomy	5
ZOO 203	Physiology	4
Plus 3 of the following team skill courses (An ACS course in these sports may be substituted for one)		
PE 137	Water Polo	1
PE 156	Intermediate Volleyball	1-1.5
PE 165	Coed Softball	1-1.5
PE 166	Basketball	1
PE 168	Soccer	1-1.5
PE 210	Professional Preparation for Football	1-2
PE 212	Professional Preparation for Baseball	1-2

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Plus 3 of the following individual skill courses (An ACS course in these sports may be substituted for one)

PE 118	Intermediate Golf	1-1.5
PE 127	Aquatic Exercises	1-2
PE 136	Intermediate Swimming	1-1.5
PE 141	Intermediate Tennis	1-1.5
PE 150	Beginning Weight Training	1-1.5
TOTAL UNITS		**34 - 40**

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

An activity may be taken four times for credit. Activity is defined to include all ability levels (e.g., A student may take a total of only four tennis courses for credit).

UC – All ACS and PE activity courses combined: maximum credit, 4 units
CSU – No limit on PE activity credit

PE 47 Physical Education Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Non-degree Applicable
Topics in Physical Education. See class schedule for specific topic covered. Course title will designate subject covered.

PE 100 Introduction to Physical Education (2)
2 hours lecture
Transfer acceptability: *CSU; UC*
An interpretation of the field designed to give the prospective major student an understanding of its scope. History and principles of physical education. Study of the objectives of modern physical education with a view toward the development of a basic philosophy and background for professional education.

PE 102 Physical Education in Elementary Schools (3)
3 hours lecture
Transfer acceptability: *CSU*
Develop understanding, knowledge, and appreciation of physical education activities adapted to the needs and interests of elementary school children. Experience in planning, writing and conducting physical education programs and curriculum.

PE 103 Evaluative Fitness (2.5)
2 hours lecture-1½ hours laboratory
Transfer acceptability: *CSU*
Theory and practical application of current measurement, testing, and evaluation procedures in adult fitness programs. Familiarization with heart rate monitoring, blood pressure, anthropometic assessment techniques (skinfold measures, circumference measurements, bioelectric impedance, BMI, waist to hip ratios), cardiorespiratory fitness assessment techniques (YMCA bike test, 3 minute step test, 1-mile walk test), musculoskeletal fitness assessment (strength, endurance, and flexibility measures), client assessment, exercise programming, and energy expenditure calculations. current theory and treatment prescription of major health problems.

PE 104 First Responder (3)
3 hours lecture
Note: *Cross listed as EME 100*
Transfer acceptability: *CSU; UC*
The study and application of emergency medical skills and procedures, including basic anatomy and physiology, terminology, and prevention of disease transmission, for CPR certification from the American Heart Association.

PE 110 Beginning Badminton (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 110, 111*
Transfer acceptability: *CSU; UC*
Recreational and competitive skill levels for beginner and advanced beginner. A development of mental and physical skills such as: interpreting rules and regulations, tactics and strategies, sport etiquette and sport-specific motor skills.

PE 111 Intermediate Badminton (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 110, 111*
Transfer acceptability: *CSU; UC*
Development of competency in badminton strokes, and defensive and offensive tactics in singles and doubles match play.

PE 112 Yoga (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Investigation and practice of the principles of Physical Hatha Yoga. Emphasis is on improved body alignment, joint flexibility, muscle tone and breathing.

PE 114 Walkfit (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Instruction and training in walking techniques to increase endurance and fitness levels.

PE 115 Bowling (1.5)
3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Competency development in selection of ball, approach, delivery, scoring, and league experience. Class meets off campus.

PE 116 Aikido (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Introduction to and a survey of Aikido, a non-aggressive, non-competitive martial art. Based upon a philosophy that underscores the importance of harmony with nature and control of body and mind. The significance of good posture, physical skill, reflexes, responsibility, and etiquette is emphasized.

PE 117 Beginning Golf (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 117, 118, 119, 216 (Golf)*
Transfer acceptability: *CSU; UC*
Skill development in the use of various clubs, scoring, and playing etiquette.

PE 118 Intermediate Golf (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 117, 118, 119, 216 (Golf)*
Transfer acceptability: *CSU; UC*
A course designed for those students who are not ready to play on a regulation golf course but have mastered the basic skills of beginning golf. This course will include the techniques (pitching, chipping, putting, sand shots and wood shots) that should enable the student to play a successful round of golf. Rules, situation analysis, and course strategy will also be covered.

PE 119 Advanced Golf (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 117, 118, 119, 216 (Golf)*
Transfer acceptability: *CSU; UC*
Development of playing strategies. Emphasis on swing techniques and mental approach to golf game. Wise use of practice time. Competency in the rules of golf. Classes held off campus.

PE 120 Beginning Surfing (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 120, 121*
Transfer acceptability: *CSU; UC*
Introduction to beginning surfing is designed to meet the needs of the beginning level surfer. Instruction will cover such topics as: historical perspectives of surfing, ocean safety, surfing etiquette, wave selection, proper paddling and appropriate take-off procedures. Students will be required to provide their own equipment.

PE 121 Intermediate Surfing (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 120;,121*
Transfer acceptability: *CSU; UC*
Concepts of intermediate surfing are designed for the intermediate level surfer who can negotiate waves and do basic turns on a consistent basis. Ocean knowledge such as currents, wave development, wind pattern and ocean floor terrain will be presented. Students will be taught short and longboard maneuvers such as: Duck dive, cutback, "off the lip", roundhouse, sideslip, crossover and walk to nose. Students will become confident in riding surf, four feet or larger. Students will be required to provide their own equipment.

PE 125 Physical Fitness (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Training in endurance, flexibility, and strength. Methods to achieve training include: swimming, running, walking, step bench, weight training, strength training, and/or cycling. Emphasis is on pre testing, post testing, and the development of personal fitness.

PE 127 Aquatic Exercises (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Note: *May be taken 4 times.*
Rhythmical and aerobic movement in water designed to improve flexibility, strength, and endurance.

PE 128 Wellness Activities (1,1.5,2)
3, 4½, or 6 hours laboratory
Note: *Open entry/Open exit; Pass/No Pass grading only; may not be taken as an audit; may be taken 4 times.*
Transfer acceptability: *CSU; UC*
Physical conditioning through aerobic fitness, flexibility, and resistance training programs. Activities include treadmill, stairmaster, stationary biking, rowing, and weight machines. Individualized tests determine the conditioning program and the level of performance expected.

PE 129 Aerobics/Step (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Note: *May be taken 4 times.*
Improve cardiovascular fitness through a variety of aerobic exercises. The development of strength, endurance, flexibility, and coordination using optional resistance equipment such as step benches, hand weights, and flex bands.

PE 130 Individualized Fitness Exercise (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
An interdisciplinary course focusing on specific aspects of fitness including physical, mental, and emotional parameters. May include, but not limited to, physical performance, stress management, weight management, self esteem, behavior modification, and injury rehabilitation.

PE 135 Beginning Swimming (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 135, 136, 214 (Swimming)*
Transfer acceptability: *CSU; UC*
Basic swimming strokes with an emphasis on skill development.

PE 136 Intermediate Swimming (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 135, 136, 214 (Swimming)*
Transfer acceptability: *CSU; UC*
Intermediate swimming strokes, starts, and turns. Basic diving techniques, water survival, and rescue techniques. Emphasis on skill development and conditioning.

PE 137 Water Polo (1)
2 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 137, 170 (Water Polo), PE 214 (Water Polo)*
Transfer acceptability: *CSU; UC*
Development of ball-handling skills, swimming conditioning, performance of offensive and defensive tactics, and game strategies.

PE 140 Beginning Tennis (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 140, 141, 142, 216 (Tennis)*
Transfer acceptability: *CSU; UC*
Introduction to basic tennis strokes, footwork, rules, and scoring.

PE 141 Intermediate Tennis (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 140, 141, 142, 216 (Tennis)*
Transfer acceptability: *CSU; UC*
Competency development in tennis strokes, defensive and offensive tactics, and match play.

PE 142 Advanced Tennis (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 140, 141, 142, 216 (Tennis)*
Transfer acceptability: *CSU; UC*
Designed primarily for competitive play with stress on court position and strategy.

PE 150 Beginning Weight Training (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 150, 151*
Transfer acceptability: *CSU; UC*
Developing basic skills, coordination, muscular tone, and strength through the use of weight machines and free weights.

PE 151 Intermediate Weight Training (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 150, 151*
Transfer acceptability: *CSU; UC*
Advanced work for toning and muscular development through the use of weights, variable resistance machines, and other weight devices.

PE 155 Beginning Volleyball (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 155, 156, 157, 170 (Volleyball)*
Transfer acceptability: *CSU; UC*
Beginning skills in volleyball including passing, setting, hitting, and serving. Drills and team play.

PE 156 Intermediate Volleyball (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE*

155, 156, 157, 170 (Volleyball)
Transfer acceptability: *CSU; UC*
Advanced work on fundamentals including blocking and defense, with emphasis on team drills and team play.

PE 157 Advanced Volleyball (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 155, 156, 157, 170 (Volleyball)*
Transfer acceptability: *CSU; UC*
Advanced techniques of volleyball with emphasis on competitive play.

PE 165 Coed Softball (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 165, 170 (Softball)*
Transfer acceptability: *CSU; UC*
Basic skills of slow pitch, fast pitch, and over the line softball. Includes rules, basic skills, and play.

PE 166 Basketball (1)
2 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 166, 170 (Basketball), PE 211*
Basic basketball skills including passing, shooting, dribbling, ball handling, and rebounding. Team play, offensive sets, and defensive patterns will be emphasized.

PE 168 Soccer (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 168, 170 (Soccer)*
Transfer acceptability: *CSU; UC*
Beginning skills in soccer. Analysis of individual positions, rules, basic drills, and team play.

PE 170 Team Sports (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of courses for the same sport; For Football, PE 170 (Football), PE 210; For Volleyball, PE 155, PE 156, PE 157, PE 170 (Volleyball); For Soccer, PE 168, PE 170 (Soccer); For Softball, PE 165, PE 170 (Softball); For Baseball, PE 170 (Baseball), PE 212; For Basketball, PE 166, PE 170 (Basketball), PE 211; For Wrestling, PE 170 (Wrestling), PE 215, 216 (Wrestling); For Water Polo, PE 137, PE 170 (Water Polo), PE 214 (Water Polo)*
Transfer acceptability: *CSU; UC*
Instruction and participation in team sports for advanced players. Team sports offered include football, volleyball, soccer, softball, baseball, basketball, wrestling, and water polo. See Class Schedule for particular sport(s) offered each semester.

PE 175A Psychology of Specific Athletic Competition – Contact (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

PE 175B Psychology of Specific Athletic Competition – Minimal Contact (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

PE 175C Psychology of Specific Athletic Competition – Non-Contact (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

PE 175D Psychology of Specific Athletic Competition – Skilled (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

PE 176 Athletic Training (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An overview of the field of sports medicine with an emphasis on the prevention, recognition, evaluation, first aid, and treatment of athletic injuries.

PE 180 Adaptive Outdoor Activities (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Planning of, participation in, and evaluation of a variety of sports and other outdoor activities adapted to disabled students. Emphasis will be on self reliance, organization of personal belongings, problem solving situations, interpersonal relations, and meeting new challenges.

PE 181 Adaptive Aquatics (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Basic swimming, survival strokes, and water orientation adapted to individual student's disability.

PE 182 Adaptive Weight Training (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Resistance activities designed to meet specific needs of the student with a disability. Development and maintenance of a level of strength, flexibility, and cardiovascular endurance in order to facilitate independence of movement and rehabilitation of specific muscle groups.

PE 183 Adaptive Skiing (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Snow skiing using adapted equipment where appropriate. Field trip to ski area required. Expenses, except for transportation, to be borne by student.

PE 184 Adaptive Body Conditioning (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Training to increase endurance, flexibility, and strength. Emphasis on individual fitness profile.

PE 190 Theory of Softball (2)
2 hours lecture
Transfer acceptability: *CSU; UC*
Fastpitch softball rules, playing techniques, coaching strategies, and practice organization.

PE 197 Topics in Physical Education (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Physical Education. See Class Schedule for specific topic offered. Course title will designate subject covered.

PE 204 Off Season Sports Conditioning (1, 1.5)
2 or 3 hours lecture/laboratory
Note: *May be taken 4 times; may be open entry/open exit*

Transfer acceptability: *CSU; UC*
An intensified out of season conditioning and strength program for men and women in intercollegiate sports. Different forms of strength training, equipment and their use will be emphasized. Implementation of a sports specific agility program will be established. Out of season speed/endurance work, and skill efficiency will be enhanced through use of different fitness parameters in preparing men and women for their season of competition.

PE 205 In Season Sports Conditioning (1,1.5)
2 or 3 hours lecture/laboratory
Note: *May be open entry/open exit; may be taken 4 times*
Transfer acceptability: *CSU; UC*
Maintenance training program for men and women in intercollegiate sports during season. Proper use of weights will be emphasized. Sports specific agility program, speed/endurance work, and skill efficiency will be enhanced through use of different fitness parameters.

PE 206 Coaching of Women's Team Sports (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
The application and development of knowledge, skills, and strategy as they apply to intercollegiate competition. Fall semester: volleyball and soccer. Spring semester: basketball and softball.

PE 210 Professional Preparation for Football (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 170 (Football), PE 210*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
Development of fundamental skills with emphasis on history, rules, styles, game strategy, current developments, preparation of teams for games and weekly practice schedules, and anticipated innovations for the future.

PE 211 Professional Preparation for Basketball (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 166, 170 (Basketball), PE 211*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
Development of fundamental skills with emphasis on history, rules, styles, game strategy, current developments, preparation of teams for games and weekly practice schedules, and anticipated innovations for the future.

PE 212 Professional Preparation for Baseball (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 170 (Baseball), PE 212*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
Development of fundamental skills with emphasis on history, rules, styles, game strategy, current developments, preparation of teams for games and weekly practice schedules, and anticipated innovations for the future.

PE 214 Professional Preparation for Water Sports (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of courses for the same sport; For Swimming, PE 135, 136, 214 (Swimming); For Water Polo, PE 137, 170 (Water Polo), PE 214 (Water Polo)*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
Development of fundamental skills with emphasis on history, rules, styles, game strategy, current developments, preparation of teams for games, weekly practice schedules, and anticipated innovations for the future.

PE 215 Professional Preparation for Wrestling (1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of PE 170 (Wrestling), PE 215, 216 (Wrestling)*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
Development of fundamental skills with emphasis on history, rules, styles, game strategy, current developments, preparation of teams for games and weekly practice schedules, and anticipated innovations for the future.

PE 216 Professional Preparations for Individual Sports (Golf, Tennis, and Wrestling) (1,2)
2 or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of courses for the same sport; For Golf, PE 117, 118, 119, 216 (Golf); For Tennis, PE 140, 141, 142, 216 (Tennis); For Wrestling, PE 170 (Wrestling), PE 215, 216 (Wrestling)*
Transfer acceptability: *CSU; UC – PE 206 - 216 combined maximum credit, 8 units*
Development of fundamental skills with emphasis on history, rules, styles, game strategy, current developments, preparation for games and matches, weekly practice schedules, and anticipated innovations for the future.

PE 229 Lifeguarding (1.5)
1½ hours lecture
Prerequisite: *Ability to swim 500 yards continuously*
Transfer acceptability: *CSU; UC*
Follows American Red Cross curriculum lifeguard training and professional rescuer CPR. National certifications can be earned upon successful completion of two topic areas. An individual will have basic preparation for aquatic lifeguard job opportunities in California.

PE 230 Lifeguarding and Emergency Response (3)
3 hours lecture
Prerequisite: *Ability to swim 500 yards continuously*
Transfer acceptability: *CSU; UC*
Follows American Red Cross curriculum lifeguard training, professional rescuer CPR and emergency response. National certifications can be earned upon successful completion of all three topic areas. Prepares an individual for aquatic lifeguard job opportunities in California.

PE 231 Water Safety Instruction (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
American Red Cross Instructor candidate training and water safety instruction. Follows the National Red Cross instructor course, learning levels of basic swim instruction, aquatic activities, and emergency rescue. National certifications can be earned by students 17 years of age or older upon successful completion of topics. Prepares an individual for teaching job opportunities at an aquatic facility.

PE 232 Teaching Swimming (1,1.5)
2 or 3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Techniques for teaching swimming. Practical experience teaching beginning and intermediate swimming classes under supervision of college instructor.

PE 295 Directed Study in Physical Education (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson/director*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in Physical Education subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Physical Science (PHSC)

Contact the Physics and Engineering Department for further information.
(760) 744-1150, ext. 2505
Office: NS-355B

COURSE OFFERINGS

PHSC 100 Introduction to Physical Science (3)
3 hours lecture
Transfer acceptability: *CSU; UC – No credit for students with prior lecture credit in ASTR, CHEM, GEOL or PHYS*
The study of selected topics from the fields of astronomy, geology, physics, chemistry, and their related sciences through lectures, films, and demonstrations. A general education course designed particularly for non science majors. For teacher training see PHSC 101.

PHSC 100L Introduction to Physical Science Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHSC 100, or concurrent enrollment in PHSC 100*
Transfer acceptability: *CSU; UC – No credit for students with prior lab credit in ASTR, CHEM, GEOL or PHYS*
The study of selected topics from the fields of astronomy, geology, physics, chemistry, and their related sciences through lab exercises. A general education course designed particularly for non-science majors. For teacher training see PHSC 101L.

PHSC 101 Principles of Physical Science (3)
3 hours lecture
Transfer acceptability: *CSU*
The study of selected topics from the fields of physics and chemistry and their related sciences through lectures, films, and demonstrations. A general education course designed particularly for non science majors. Especially recommended for teacher training.

PHSC 101L Principles of Physical Science Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHSC 101, or concurrent enrollment in PHSC 101*
Transfer acceptability: *CSU*
The study of selected topics from the fields of physics and chemistry and their related sciences through lab exercises. A general education course designed particularly for non-science majors; not open to majors in physics, chemistry, or engineering. Especially recommended for teacher training.

Physics (PHYS)

Contact the Physics and Engineering Department for further information.
(760) 744-1150, ext. 2505
Office: NS-355B

COURSE OFFERINGS

*UC credit limitations --
- No credit for PHYS 101 or 102 if taken after 120, 200, or 230
- PHYS 120, 121 or 200, 201 or 230, 231, 232 combined: maximum credit, one series
- PHYS 200 and 230 combined: maximum credit, one course
- PHYS 201 and 231 combined: maximum credit, one course

PHYS 101 Introduction to Physics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 50 or one year of high school Algebra*
Note: *Not open to students with prior credit in PHYS 100, 110, 115, 120, 125, 230, 231, and 232*
Transfer acceptability: *CSU; UC**
An introductory survey course in classical and modern physics. Not intended for science majors.

PHYS 102 Introduction to Physics (Lecture) (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 50 or one year of high school Algebra*
Note: *Not open to students with prior credit in PHYS 101, 110, 115, 120, 125, 230, 231, and 232*
Transfer acceptability: *CSU; UC**
An introductory survey course in classical and modern physics. Not intended for science majors.

PHYS 120 General Physics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 110*
Recommended preparation: *MATH 115*
Transfer acceptability: *CSU; UC**
The fundamental principles of classical mechanics, wave motion, sound, thermodynamics, and fluids.

PHYS 121 General Physics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHYS 120*
Transfer acceptability: *CSU; UC**
A second semester continuation of PHYS 120. The fundamental principles of optics, electricity, magnetism, and modern physics.

PHYS 130 Preparation for Principles of Physics (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 140, or concurrent enrollment in MATH 140*
Transfer acceptability: *CSU*
Designed for students who need extra preparation for the math and physics concepts covered in Physics 230, Principles of Physics. Introduces basic classical mechanics, oscillations, and gravitation.

PHYS 197 Physics Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus*
Topics in Physics. See Class Schedule for specific topic offered. Course title will designate subject covered.

PHYS 200 Fundamentals of Physics (5)
4 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 140, or concurrent enrollment in MATH 140*
Note: *PHYS 200-201 series not recommended for majors in engineering, computer science or physics; PHYS 230 series recommended for majors in engineering, computer science, or physics.*
Transfer acceptability: *CSU; UC**
A calculus-based course in classical mechanics, waves, sound, fluids and thermodynamics, with an emphasis on life science, pre-professional, and architectural fields.

PHYS 201 Fundamentals of Physics (5)
4 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHYS 200*
Recommended preparation: *A minimum grade of 'C' in MATH 141, or concurrent enrollment in MATH 141*
Note: *PHYS 200-201 series not recommended for majors in engineering, computer science or physics; PHYS 230 series recommended for majors in engineering, computer science, or physics.*
Transfer acceptability: *CSU; UC**
A calculus-based course in classical electromagnetism, optics and atomic physics, with an emphasis on life science, pre-professional, and architectural fields.

PHYS 230 Principles of Physics (5)
4 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 141, or concurrent enrollment in MATH 141*
Recommended preparation: *PHYS 120*
Transfer acceptability: *CSU; UC**
Classical mechanics, thermodynamics and fluid dynamics. Required for students whose major field is physics, chemistry, or engineering.

PHYS 231 Principles of Physics (5)
4 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHYS 230; A minimum grade of 'C' in MATH 205, or concurrent enrollment in MATH 205*
Recommended preparation: *PHYS 121*
Transfer acceptability: *CSU; UC**
Classical electromagnetism, electromagnetic waves, and optics. Required for students whose major field is physics, chemistry, or engineering.

PHYS 232 Principles of Physics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHYS 231 and MATH 205*
Transfer acceptability: *CSU; UC**
Modern Physics. Required for students whose major field is physics, chemistry, or engineering.

PHYS 295 Directed Study in Physics (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Designed for the student who has demonstrated a proficiency in physics subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

Physiology

See Zoology

Political Science (POSC)

Contact the Economics, History and Political Sciences Department for further information.
(760) 744-1150, ext. 2412
Office: P-17K

COURSE OFFERINGS

POSC 100 Introduction to Political Science (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Introduction to the scope and methods of political science; basic political concepts and policies; comparative government institutions, stressing the United States; an overview of political theories, international politics, and political economy.

POSC 101 Introduction to Politics and American Political Institutions (3)
3 hours lecture
Note: *This course plus POSC 102 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
A study of the development of American political institutions, the basic features of the Constitution, and major court interpretations that affect our lives today. Special attention will be given to evolution of political rights and individual liberties, the electoral process and fundamental concepts of democracy, liberty, diversity, and equality.

POSC 102 Introduction to United States and California Governments (3)
3 hours lecture
Note: *This course plus POSC 101 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
An examination of the US Constitution as it relates to the major institutions of government: the Congress, the Presidency, and the Supreme Court. It also emphasizes social, economic, and foreign policy so that students will have an understanding of the issues they face in the contemporary era. California history and government, another course component, will be compared and contrasted to the national political system.

POSC 110 Introduction to World Politics (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Sources and uses of power in the arena of international politics. Causes and consequences of 20th century wars. The balance of power, history, geography, military and economic potential will be examined to show their impact on foreign policies of the United States, Europe, Russia, Japan, China and less-developed states. Uses of military force, economic leverage, diplomacy, law, etc., discussed as approaches to limit war.

POSC 120 California Government (1)
1 hour lecture
Transfer acceptability: *CSU*
Intended for students who have completed the American History and Institutions requirements for the A.A. Degree or CSU General Education, but have not met the California Constitution requirement. Organization and operation of California state and local government. Stress upon citizen participation in the decision making process.

POSC 125 Contemporary World Problems (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Focus is on three issue-areas: war and group conflict; population growth and movement; and change and cultural values. Other current issues may also be examined.

POSC 130 Introduction to Public Administration (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the key issues in public administration, urban planning, public personnel administration, and public safety with an emphasis on governmental structure and the public decision making process as it pertains to the effectiveness of criminal justice policies, zoning, and land use considerations.

POSC 197 Political Science Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Political Science. See Class Schedule for specific topic offered. Course title will designate subject covered.

POSC 295 Directed Study in Political Science (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study designed for advanced students who have demonstrated a proficiency in political science subjects and have the initiative to work independently on projects or research that does not fit into the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Psychology (PSYC)

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2329
Office: W-16
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Alcohol and Other Drug Studies
- Psychological and Social Services

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Alcohol and Other Drug Studies
- Psychological and Social Services

PROGRAM OF STUDY

Alcohol and Other Drug Studies

Provides the student with the academic training and hands on experience for entry-level employment in delivery of alcohol and other drug treatment services in agency settings and serves as a preparation for California state examinations as a certified addictions treatment counselor by CAADE and as a certified alcoholism and drug abuse counselor by CAADAC.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
PSYC 100	Introduction to Psychology	3
PSYC/SOC/ AODS 150	Introduction to Alcohol and Other Drug Studies	3
PSYC/SOC/ AODS 155	The Physiology and Pharmacology of Psychoactive Drugs	3
PSYC/SOC/ AODS 160	Prevention, Intervention, and Education	3
PSYC 225	Psychology of Abnormal Behavior	3
PSYC/SOC/ AODS 250	Group Leadership and Process	3
PSYC/SOC/ AODS 255	Treatment Modalities, Law and Ethics	3
PSYC/SOC/ AODS 260	Chemical Dependency Family Counseling	3
PSYC/SOC/ AODS 299	Directed Field Experience II	6
Group One (Select 3 units)		
SOC 100	Introduction to Sociology	3
SOC 110	Social Problems	3
Group Two (Select 4-5 units)		
PSYC/SOC/ AODS 140	Introduction to Psychological and Social Services	4
PSYC/SOC/ AODS 298	Directed Field Experience I	5
TOTAL UNITS		**37 - 38**

Alcohol and Other Drug Studies is also listed in Alcohol and Other Drug Studies and in Sociology.

Psychological and Social Services

Provides the student with the academic training and hands on experience for entry-level employment in human services and serves as preparation for upper division course work.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
COUN 100	Introduction to Basic Counseling Skills	3
PSYC 100	Introduction to Psychology	3
PSYC/SOC/ AODS 140	Intro to Psychological and Social Services	4
PSYC 225	Psychology of Abnormal Behavior	3
PSYC 235	Learning/Behavior Modification	3
PSYC/SOC/ AODS 298	Directed Field Experience I	5
SOC 100	Introduction to Sociology	3
SOC 110	Social Problems	3
Electives (Select 3 units)		
PSYC/SOC 105	Marriage, Family and Intimate Relationships	3
PSYC 110	Developmental Psychology – Child/Adult	3
PSYC 115	Psychology of Personal Growth	3
PSYC/SOC 120	Social Psychology	3
PSYC/SOC 145	Psychology and Sociology of Aging	3
PSYC/SOC/ AODS 155	Physiology/Pharmacology of Psychoactive Drugs	3
TOTAL UNITS		**30**

Psychological and Social Services A.A. Degree or Certificate of Achievement is also listed in Sociology.

COURSE OFFERINGS

PSYC 100 Introduction to Psychology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A general introduction to the principles of human and animal behavior. Topics covered include history of psychology, research thinking, intelligence, lifespan development, gender and human sexuality, motivation and emotion, health psychology, personality, psychological disorders, therapy, social psychology, and other related topics (e.g., industrial/organizational psychology, sports psychology, environmental psychology, forensic psychology). Emphasis is placed upon the relationship between general principles of psychology and their practical applications.

PSYC 105 Marriage, Family, and Intimate Relationships (3)
3 hours lecture
Note: *Cross listed as SOC 105*
Transfer acceptability: *CSU, UC*
A study of the psychology and sociology of the family and intimate relationships. Emphasizes factors that enhance interpersonal relationships. Topics include love, marital choice, communication, conflict, and changing models of the family. Examines cross-cultural and historical factors that impact the family as a social institution and the impact of gender, race and ethnicity, social class, age, and sexual orientation on family organization.

PSYC 110 Developmental Psychology – Child Through Adult (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A chronological study of human growth and development throughout the lifespan. Heredity and environmental determinants of behavior and developmental research methods are emphasized. The importance of social experience in the family, school, peer groups, and society are examined.

PSYC 115 The Psychology of Personal Growth and Development (3)
3 hours lecture
Transfer acceptability: *CSU*
Emphasis on self understanding through the study of the individual and relationships which contribute to unique personal development; application of the fundamental concepts of psychology which aid in examining one's own personal environment and the interaction with that environment.

PSYC 120 Social Psychology (3)
3 hours lecture
Note: *Cross listed as SOC 120*
Transfer acceptability: *CSU; UC*
Explores relationships between the behavior of individuals and the structure of society. Emphasizes the importance of language, roles, and the concepts of the self in the socialization process.

PSYC 125 Human Sexuality (3)
3 hours lecture
Note: *Cross listed as SOC 125*
Transfer acceptability: *CSU; UC*
Survey of topics pertinent to an understanding of the development of human sexuality. Emphasis on biological, psychological, and cultural determinants of sexual behavior. Current sex norms and various aspects of interpersonal and individual sexual adjustment.

PSYC 130 Psychology of Women (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A psychological exploration of the ways that race, ethnicity, class, sexual orientation, and age modify women's experience. To be included are such areas as communication, mental health, sex-role socialization, body image, family, and sexuality issues. Course content will be relevant to both females and males.

PSYC 140 Introduction to Psychological and Social Services (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as SOC 140/AODS 140*
Transfer acceptability: *CSU*
Supervised internship in a human service agency or an alcohol and other drug treatment facility. An overview of the field of human services, including alcohol and other drug treatment. The roles of psychologists, sociologists, social workers, family therapists, social service assistants and addiction counselors are compared and contrasted, and the issues they deal with are described. Through cooperative efforts of provider agencies, the instructor, and the student, the skills utilized for entry-level employment are observed, practiced, and evaluated under supervision.

PSYC 145 Psychology and Sociology of Aging (3)
3 hours lecture
Note: *Cross listed as SOC 145*
Transfer acceptability: *CSU*
A multi disciplinary approach to the field of gerontology; historical, demographic, psychological, and sociological aspects of aging.

PSYC 150 Introduction to Alcohol and Other Drug Studies (3)
3 hours lecture
Note: *Cross listed as SOC 150/AODS 150*
Transfer acceptability: *CSU*
Examines alcohol, tobacco and psychoactive drugs in society. Biological, psychological and socio-cultural factors of drug abuse and dependence will be explored. The impact of addiction on families and society; contemporary treatment techniques, and the addiction counseling profession will be covered.

PSYC 155 The Physiology and Pharmacology of Psychoactive Drugs (3)
3 hours lecture
Note: *Cross listed as SOC 155/AODS 155*
Transfer acceptability: *CSU*
This course will examine how psychoactive drugs affect the nervous system. Ways of classifying drugs will be identified including the processes of physical and psychological dependence, tolerance, withdrawal, and genetic predispositions. Temporary and long-term affective, behavioral, cognitive, biological, and social consequences of psychoactive drug use will be explored, including disorders such as Korsakoff's syndrome and other nutritional deficiencies.

PSYC 160 Prevention, Intervention, and Education (3)
3 hours lecture
Note: *Cross listed as SOC 160/AODS 160*
Transfer acceptability: *CSU*
This course will review historical and contemporary approaches for chemical dependency, including prevention, intervention, and education. It will analyze the progression of substance abuse and chemical dependency disorders and will evaluate types of prevention, education, and intervention strategies.

PSYC 197 Special Topics in Contemporary Psychology (1,1.5,2,3)
1, 1½, 2, or 3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Current topics of special interest to psychology students will be debated and discussed in a seminar format. Issues in such areas as social psychology, perception and learning, personality, and others will be analyzed from theoretical and methodological perspectives. Content will change from semester to semester.

PSYC 205 Statistics for the Behavioral Sciences (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or 60 or eligibility determined through the math placement process*
Note: *Cross listed as SOC 205*
Transfer acceptability: *CSU; UC - PSYC/SOC 205, MATH 120, and BIOL 215 combined: maximum credit, one course*
Quantitative methods as applied to behavioral science data. Frequency distributions, measure of central tendency, variability, theory of error, measures of significance, correlation, regression, and an introduction to analysis of variance. Also included is an introduction to the use of computers in statistics.

PSYC 205L Data Analysis in Psychology and Sociology (1)
3 hours laboratory
Corequisite: *PSYC/SOC 205*
Note: *Cross listed as SOC 205L*
Transfer acceptability: *CSU; UC*
Use of the computer as a tool for calculating statistics and exploring data in Psychology and Sociology.

PSYC 210 Physiological Psychology (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PSYC 100*
Transfer acceptability: *CSU; UC*
An examination of the biological basis of behavior. Topics to be covered include neuroanatomy, neurophysiology, psychoactive drug use and addiction, endocrinology, encephalic evolution, learning and memory, sexual behavior, sleep processes and neuropsychological disorders. Laboratory includes neuroanatomical dissection.

PSYC 225 Psychology of Abnormal Behavior (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in PSYC 100*
Transfer acceptability: *CSU; UC*
Identification and description of the various types of psychological abnormalities, deficiencies, and disorders which may interfere with a human individual's ability to cope with the demands of the surroundings. All of the major psychiatric categories will be covered as well as the types of personality problems which lead to domestic, social, and economic inadequacies, and in some instances, to difficulties with the law.

PSYC 230 Research Methods in Psychology (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PSYC 100, PSYC/SOC 205, ENG 100*
Transfer acceptability: *CSU; UC*
Introduction to psychological research methods with emphasis on the use of the scientific method in psychological research. The laboratory is designed to complement the lectures and allow each student to design and conduct psychological research.

PSYC 235 Principles of Learning and Behavior Modification (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The basic principles and research in classical conditioning, operant conditioning, cognitive learning processes, the impact of biochemical processes on learning, and application of behavior modification techniques for changing behavior.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

PSYC 250 Group Leadership and Process (3)
3 hours lecture
Note: *Cross listed as AODS 250/SOC 250*
Transfer acceptability: *CSU*
An introduction to the dynamics of group interaction, with emphasis upon the individual's firsthand experience as the group studies itself under supervision. Problems of communication, effective emotional responses, and personal growth will be highlighted. The emphasis will be upon group process as a means of changing behavior.

PSYC 255 Treatment Modalities, Law and Ethics (3)
3 hours lecture
Note: *Cross listed as AODS 255/SOC 255*
Transfer acceptability: *CSU*
This course reviews the principles and practices of addiction treatment including screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, education of clients and their families, referral, report and record keeping, and consultation. Legal and ethical standards of practice for addictions counselors will be reviewed and included in this body of knowledge, skills, and attitudes.

PSYC 260 Chemical Dependency Family Counseling (3)
3 hours lecture
Note: *Cross listed as AODS 260/SOC 260*
Transfer acceptability: *CSU*
This course is designed to explore methods of assisting family members and others to understand and to cope with the alcohol and drug abuse of alcoholics and addicts. Several family therapy modalities will be explored. The approach will be experiential in format and students will participate in exercises that lead to the development of these skills.

PSYC 296 Special Problems in Psychology (1, 2, 3)
1, 2, or 3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
An individualized or group project in psychology of any nature approved by, and under the personal supervision of, the instructor.

PSYC 298 Directed Field Experience I (5)
3 hours lecture-6 hours laboratory
Note: *Cross listed as AODS 298/SOC 298*
Transfer acceptability: *CSU*
Supervised internship in a human service agency or an alcohol and other drug treatment facility. The student intern will have an opportunity to observe human service providers working with clients in agency settings. Ethical guidelines for helping professions, developing cultural competence, stages of change and motivational interviewing as a helping style are discussed. Interns practice interviewing skills for increasing motivation for positive change.

PSYC 299 Directed Field Experience II (6)
3 hours lecture-9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AODS 140/SOC 140/PSYC 140 or AODS 298/SOC 298/PSYC 298*
Note: *Cross listed as AODS 299/SOC 299*
Transfer acceptability: *CSU*
Supervised internship in an alcohol and other drug treatment facility. This course emphasizes advanced concepts in chemical dependency. Students refine their skills for the 12 core functions of effective clinical practice and compile a professional portfolio in preparation for the state certifying written exam. This course meets the 45-hour supervised practicum requirement for the California Certification Board of Alcohol and Drug Counselors.

Public Administration (PA)

Contact the Economics, History and Political Science Department for further information.
(760) 744-1150, ext. 2412
Office: P-17K

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Public Administration

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Public Administration

PROGRAM OF STUDY

Public Administration

This certificate program is designed for transfer into San Diego State University's program leading to a degree in Public Administration.

Assists in improving skills to take management positions and/or meet professional growth requirements in local government. Transfer students should consult the four year college or university catalog for specific requirements or see a Palomar College counselor.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 103	Financial Accounting	4
BUS 205	Business Writing	3
ECON 102	Principles of Economics (Micro)	3
MATH 120	Elementary Statistics	3
POSC 101	Intro to Politics/American Political Institutions	3
POSC 102	Intro to United States/California Governments	3
POSC 130	Introduction to Public Administration	3
TOTAL UNITS		**22**

Public Works Management (PWM)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Public Works Management - Level I
• Public Works Management - Level II

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Public Works Management - Level I
• Public Works Management - Level II

PROGRAM OF STUDY

Public Works Management - Level I

Specifically designed for individuals employed by or seeking employment in public works organizations in San Diego County. Provides as overview for field personnel of the basic elements of the Public Works Industry and introduces students to administrative responsibilities and planning. This certification level prepares field personnel for "Lead Worker" positions. This is a cooperative program offered by Citrus, Palomar and Santiago Canyon Colleges in collaboration with and approved by the Maintenance Superintendents Association and American Public Works Association.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
PWM 50	Introduction to Public Works	3
PWM 51	Street Construction and Maintenance	3

PWM 52	Asphalt and Portland Cement	3
PWM 53	Public Works Inspection	3
MATH 50	Beginning Algebra	4
Electives (Select 3 units)		
PWM 56	Parks and Landscape Management	3
PWM 58	Discharge Compliance Fundamentals	3
BMGT 101	Introduction to Management	3
BUS 125	Business English	3
BUS 138	Business Ethics	2
BUS 187	Project for Business	1
SPCH 115	Interpersonal Communication	3
TOTAL UNITS		**19**

Public Works Management - Level II

Specifically designed for individuals employed by or seeking employment in public works organizations in San Diego County. Introduces management and administrative concepts to field staff. Classes are designed to prepare Lead Workers for front line supervisory positions in the Public Works field. This is a cooperative program offered by Citrus, Palomar and Santiago Canyon Colleges in collaboration with and approved by the Maintenance Superintendents Association and American Public Works Association.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
PWM 50	Introduction to Public Works	3
PWM 51	Street Construction and Maintenance	3
PWM 52	Asphalt and Portland Cement	3
PWM 53	Public Works Inspection	3
PWM 55	Public Works Administration	3
PWM 57	Plan Interpretation and Cost Estimating	3
PWM/WTE/ WWT 125	Supervision	3
R CSIS 120/ CSIT 120	Computer Applications	3
Electives (Select 2 courses)		
PWM 56	Parks and Landscape Management	3
PWM 58	Discharge Compliance Fundamentals	3
BMGT 101	Introduction to Management	3
BUS 125	Business English	3
BUS 138	Business Ethics	2
BUS 187	Project for Business	1
MATH 56 or	Beginning/Intermediate Algebra	6
MATH 60	Intermediate Algebra	4
SPCH 115	Interpersonal Communication	3
TOTAL UNITS		**27 - 33**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

PWM 50 Introduction to Public Works (3)
3 hours lecture
Designed by the American Public Works and Maintenance Superintendents Associations in order to prepare public works and maintenance workers for lead and supervisory positions. Students will receive an introduction to techniques; materials and equipment used in public works, maintenance and repair projects.

PWM 51 Street Construction and Maintenance (3)
3 hours lecture
Recommended preparation: *MATH 15*
Provides instruction on street construction and maintenance; including materials and methods, specifications, records and cost accounting systems, revenue sources and budget preparation. Other subjects include safety, drainage, equipment records and specifications, as well as public relations. Codes and industry standards that pertain to improvements and repair will be reviewed.

PWM 52 Asphalt and Portland Cement (3)
3 hours lecture
Recommended preparation: *MATH 15*
Provides instruction on the recommended procedures, practices, and testing criteria used by the Asphalt Institute highlighting local city and county asphalt requirements. Content includes specifications for roads, runway floors, and hydraulic structures and Portland Cement concrete design and uses. Includes transporting, placing, curing, and testing concrete as well as application and construction methods employed.

PWM 53 Public Works Inspection (3)
3 hours lecture
Recommended preparation: *MATH 15*
Provides an overview of the inspector's role and responsibilities as it relates to a project. The student will be given the necessary information and training necessary for entry level inspection responsibilities. The course will apply to construction of municipal infrastructure and civil engineering type projects.

PWM 55 Public Works Administration (3)
3 hours lecture
Provides an introduction to the organizational concepts used by the Public Works Department. Content includes typical organization, management concepts, political considerations, planning, financial management and public relations.

PWM 56 Parks and Landscape Management (3)
2½ hours lecture-1½ hours laboratory
Survey of parks and landscape management, operations, and maintenance techniques in various parks and landscapes. Content will include the principles of parks and landscape management, design, construction, maintenance and operations, public parks, landscape management and administration principles. Specific topics will include turf, landscape, park equipment, pesticide use, park facilities, trails design and construction, irrigation system design and maintenance, installation, and maintenance practices for basic elements of landscape irrigation systems, and playground design and maintenance.

PWM 57 Plan Interpretation and Cost Estimating (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in MATH 15*
Provides a basic introduction into reading and interpreting construction plans related to public works and street improvement projects. Will provide the student with the fundamental understanding of how construction plans relate to actual construction and how to use the plans to determine the quantity of materials needed to complete the work proposed on the plans and to estimate a cost for the completion of the work.

PWM 58 Discharge Compliance Fundamentals (3)
3 hours lecture
Study of regulatory discharge compliance fundamentals of the Regional Water Quality Control Board point source and non-point source permitting process. Course study includes collection systems, storm water, and recycled water permit and reporting compliance.

PWM 125 Supervision (3)
3 hours lecture
Note: *Cross listed as WTE 125/WWT 125*
Managerial aspects of public utilities including organization, decision making, coordination, communication, and public relations. Personnel management including recruiting, training, evaluation, discipline, promotion, morale, and grievances. Safety programs and encouraging safe conditions, actions and attitudes.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Radio and Television (RTV)

See also Communications

Contact the Communications Department for further information.
(760) 744-1150, ext. 2440
Office: U-12

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Digital Video
- Radio and Television

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Digital Video
- Entertainment Technology
- Radio and Television

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Broadcast Journalism
- Digital Media

PROGRAMS OF STUDY

Broadcast Journalism

Provides a background in print journalism and broadcast journalism: practical experience in gathering, writing, editing and producing news. This certificate prepares students for employment in the television news industry.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
JOUR 101	News Writing and Reporting	3
JOUR 105	Newspaper Production	3
RTV/ENTT 120	Digital Television Production	3
RTV 240	Television News	4
RTV 245	Advanced TV News	3
TOTAL UNITS		**16**

The Broadcast Journalism Certificate of Proficiency is also listed under Journalism.

Digital Media

Digital Media encompasses digital video editing in both analog and digital media. The certificate prepares students for employment in the film, video, Internet, and television industries. Major growth in this industry is anticipated as Internet and television merge into one medium.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CINE/RTV 125	Beg Film/Video Field Production	3
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
RTV 270	Computer Video Editing	3
RTV 275	Avid Editing for Television & Film	3
TOTAL UNITS		**17**

Digital Media Certificate of Proficiency is also listed under Graphic Communications - Multimedia and Web.

Digital Video

Digital Video encompasses editing and design in using both digital and analog media. This degree prepares students for employment in the film, video, Internet, and television industries.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP/ R GCIP 140	Digital Imaging/PhotoShop I	4
GCMW 165	Digital Video Design	4
GCMW 204	Motion Graphics for Multimedia	4
GCMW 205	Digital Video for Multimedia	4
RTV/CINE 125	Beg Film/Video Field Production	3
RTV 230	Digital Audio with Pro Tools	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television and Film	3

Electives (2 courses required, 6 units minimum)		Units
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max–Intro to 3D Modeling/Animation	3
GCIP/ R GCIP 152	Desktop Publishing/Illustrator I	4
GCIP 240	Digital Imaging/PhotoShop III	4
GCMW/ R GCMW 101	Multimedia I	4
GCMW 201	Multimedia II	4
GCMW 203	Web Multimedia	4
GCMW 108	Web Motion Graphics I	4
GCMW 208	Web Motion Graphics II	4
RTV 50	Basic Television Acting	1
RTV 110	Broadcast Writing and Producing	3
RTV/ENTT 120	Digital Television Production	3
RTV 150	Performance and Acting for Broadcast and Film	3
RTV 170	Introduction to Video Editing	3
RTV/CINE 225	Intermediate Film and Video Field Production	3
TOTAL UNITS		**34 - 36**

Digital Video A.A. Degree Major or Certificate of Achievement is also listed under Graphic Communications - Multimedia and Web.

Entertainment Technology

This program will prepare students for employment in the fields of entertainment technologies at entry level. The areas of potential employment include theme parks, casinos, cruise ships, concerts, gallery display and design, event installations, live event technical support, and theatre venues providing non-theatre related events. Basic rigging and production safety will be a component of this program.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	3
ENTT 100	Introduction to Entertainment Technology	1
ENTT/RTV 103	Introduction to Audio-Visual Systems	3
ENTT/TA 105	Introduction to Technical Theatre	2.5
ENTT/TA 107	Lighting for Stage and Television	3
ENTT/TA 112	Entertainment Audio Production	3
ENTT/RTV 130	Radio Production	3
TA 197D	Stage Crew Workshop	2
TA 297 or ENTT/RTV 294B	Experimental Topics in Theatre Television Internships/Production	1

Electives (Select 11 units)		
ENTT/RTV 294B	Television Internships/Production	1, 2, 3
FASH 126	Fashion Show Presentation	1
FASH 135	Basic Sewing Construction	3
FASH 139	Pattern Making/Fashion Design	3
RTV 100	Introduction to Radio/TV	3
RTV 120/ ENTT 120	Digital Television Production	3
RTV 230	Digital Audio with Pro Tools	3

TA 106	Elementary Stage Costume	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and TV	3
TA 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	.5
TA 170	Computer Aided Drafting for Theatre	3
TA 297	Experimental Topics in Theatre	1-3
WELD 100	Welding I	3
TOTAL UNITS		**32.5**

Entertainment Technology Certificate of Achievement also listed in Entertainment Technology and in Theatre Arts.

Radio and Television

Provides entry-level skills in the field of digital radio and television broadcasting.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
BUS 150	Advertising	3
CINE/RTV 125	Beg Film/Video Field Production	3
CINE/RTV 225	Intermediate Film/Video Field Production	3
ENTT/TA 107	Lighting for Stage and Television	3
ENTT/ RTV 294B or	Television Internship/Production	
RTV 294A	Radio Programming Projects	1
ENTT/RTV 120	Digital Television Production	3
ENTT/RTV 130	Radio Production	3
RTV 100	Introduction to Radio and TV	3
RTV 110	Broadcast Writing and Producing	3
RTV 220 or	TV Production and Direction	
RTV 230*	Digital Audio with Pro Tools	3
RTV 240	Television News	4

Electives (Select 6 units, maximum 6 units from RTV 194A, 194B, 294A, and 294B)		
RTV 100L	Introduction to Radio and Television Lab.	1
RTV/ENTT 103	Introduction to Audio-Visual Systems	3
RTV/CINE 115	Creative Writing for TV/Cinema	3
RTV 135	Beginning Radio Station Operations	1, 2, 3
RTV 136	Advanced Radio Station Operations	1, 2, 3
RTV 140	Radio News	3
RTV 150	Performance/Acting for Broadcast/Film	3
RTV 170	Introduction to Video Editing	3
RTV 180	Sports Broadcasting	3
RTV 194A	Radio Operations	1, 2, 3
RTV 194B	Exp Topics/TV Operations	1, 2, 3
RTV 230	Digital Audio with Pro Tools	3
RTV 245	Advanced TV News	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television and Film	3
RTV 294A	Radio Programming Projects	1, 2, 3
RTV/ENTT 294B	Television Internships/Production	1, 2, 3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TOTAL UNITS		**38**

* Students who are not planning to transfer to a four-year university and who have a radio emphasis may substitute RTV 230 for RTV 220.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

RTV 50 Basic Television Acting (1)
3 hours laboratory
Note: *May be taken 3 times*
Practice and performance in the basics of television acting. Special emphasis on movement for the camera, emotion, gestures, voice, techniques to copy interpretation, audition processes, agent and industry information. Prepares the actor for basic television acting through a variety of on-camera exercises and final productions.

RTV 100 Introduction to Radio and TV (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of American broadcasting, its development, impact and influence on our society; basic principles, mass communication theory, station operation programming, advertising, rating services, cable television, regulation, and censorship; in depth analysis of current issues and developments.

RTV 100L Introduction to Radio and Television Laboratory (1)
3 hours laboratory
Transfer acceptability: *CSU*
Practice in use of radio and television studio equipment. Designed for students who are not Radio Television majors.

RTV 103 Introduction to Audio-Visual Systems (3)
6 hours lecture/laboratory
Note: *Cross listed as ENTT 103*
Transfer acceptability: *CSU*
Provides a theoretical and practical foundation in temporary and permanent video and audio systems technology for entertainment applications such as theatre, corporate events, hotel/ballroom A/V work, theme parks, museums and other related applications.

RTV 110 Broadcast Writing and Producing (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
Creating and developing ideas and materials for broadcast. Problems of timing, pacing, visualization, and expression. Techniques of scripting for radio and television.

RTV 115 Creative Writing for Television and Cinema (3)
3 hours lecture
Note: *Cross listed as CINE 115*
Transfer acceptability: *CSU*
Instruction and practice in the art of dramatic script writing. Emphasis is placed on the development of the initial story idea into a viable, professional shooting script for television or film.

RTV 120 Digital Television Production (3)
6 hours lecture/laboratory
Note: *Cross listed as ENTT 120*
Transfer acceptability: *CSU*
The terminology, practices, and aesthetic considerations of visual and sound productions. Principles of producing, staging, shot composition, directing, blocking, graphics, studio techniques, and lighting, for television.

RTV 125 Beginning Film and Video Field Production (3)
6 hours lecture/laboratory
Note: *Cross listed as CINE 125*
Transfer acceptability: *CSU; UC – CINE/RTV 125 and 225 combined: maximum credit, one course*
A study of the basic techniques of field production using Super 8 or 16mm film or analog or digital video equipment as applied to various cinematic forms. The student will work with a team on a project through the preproduction, shooting, and postproduction phases of storytelling for the screen.

RTV 130 Radio Production (3)
6 hours lecture/laboratory
Note: *Cross listed as ENTT 130*
Transfer acceptability: *CSU*
Techniques and theories of audio production in the preparation of radio programs. Use of audio mixing and recording equipment, editing and dubbing, microphone techniques and program construction. Several programs produced by the student will be broadcast on radio station KKSM.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

RTV 135 Beginning Radio Station Operations (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in RTV/ENTT 130*
Corequisite: *RTV 294A*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Introduction to radio station operations and audio production skills along with practical exercises using broadcast equipment and techniques.

RTV 136 Advanced Radio Station Operations (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in RTV/ENTT 130*
Corequisite: *RTV 294A*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Advanced radio and audio production skills along with practical exercises using broadcast equipment and techniques. Special emphasis in broadcast management training.

RTV 140 Radio News (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
Introduction to the principles of radio news writing, rewriting, editing, gathering (by audio recording and news wire services), and announcing. Student will incorporate learning into the production of radio newscasts for radio station KKSM.

RTV 150 Performance and Acting for Broadcast and Film (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
Techniques of preparation and delivery of materials before microphone and camera.

RTV 170 Introduction to Video Editing (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
Covers the technical and theoretical development of film and video editing from its initiation to the present day. Provides an introduction to the basic elements of editing language, the various technical processes used throughout its history, as well as the related skills necessary for good editing.

RTV 180 Sports Broadcasting (3)
6 hours lecture/laboratory
Note: *May not be taken for Pass/No Pass grading, may be taken 4 times*
Transfer acceptability: *CSU*
Sports broadcasting: anchoring, reporting, play-by-play, and color announcing techniques.

RTV 194A Radio Operations (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *Pass/No Pass grading only; may be taken 4 times*
Transfer acceptability: *CSU*
Advanced research projects designed to meet the specific needs of student's interest in radio station operations. Projects may be chosen for production by the College or by the individual student.

RTV 194B Experimental Topics Television Operations (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Individual television projects, including operations of television equipment in college produced television programs or individual productions.

RTV 197 Radio and Television Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Radio and Television. See Class Schedule for specific topic offered. Course title will designate subject covered.

RTV 220 Television Production and Direction (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV 110 and RTV/ENTT 120*
Transfer acceptability: *CSU*
Techniques and theories of television production and direction. Practice in pre production planning, staging, studio production, and editing. Duties and responsibilities of director and production crew. Production of fully scripted television programs for airing on cable and broadcast stations.

RTV 225 Intermediate Film and Video Field Production (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV 110 and CINE/RTV 125*
Note: *Cross listed as CINE 225*
Transfer acceptability: *CSU; UC – CINE/RTV 125 and 225 combined: maximum credit, one course*
Principles, techniques, and theory of field production using digital or analog video or 16mm film equipment. Theory and practice of off line linear or nonlinear editing.

RTV 230 Digital Audio with Pro Tools (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV/ENTT 130*
Transfer acceptability: *CSU*
Principles and techniques of editing radio, television, and film audio projects using Pro Tools software and technology. Digitizing audio source material, working knowledge of Pro Tools interface, use of multi-track audio editing system, mic and recording techniques.

RTV 240 Television News (4)
8 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV 110 and RTV/ENTT 120 or RTV 140*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Principles of scripting, gathering, and editing of television news. Production of newscasts for airing on cable television.

RTV 245 Advanced TV News (3)
6 hours lecture/laboratory
Recommended preparation: *RTV 240*
Note: *May not be taken for Pass/No Pass grading; may be taken 4 times*
Transfer acceptability: *CSU*
Advanced principles and application of techniques and theory of local TV News reporting, news gathering, producing, and editing an ongoing TV News program. Production of newscasts for airing on cable television.

RTV 270 Digital Video Editing (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV 170*
Note: *May not be taken for Pass/No Pass grading.*
Transfer acceptability: *CSU*
Principles and techniques of digital non-linear video editing for broadcast TV and Film. Overview of Final Cut Pro software program. Application of operational and aesthetic editing principles.

RTV 275 Avid Editing for Television and Film (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in RTV 170 and 270*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Principles and techniques of editing video and film projects using Avid technology. Digitizing source material, storyboarding, timeline, audio editing, importing and exporting graphics, outputting, and media management.

RTV 294A Radio Programming Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *Pass/No Pass grading only; may be taken 4 times*
Transfer acceptability: *CSU*
Advanced radio projects to meet the specific needs of the student's interest in radio programming. Work on college produced broadcast productions.

RTV 294B Television Internships/Production (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *Cross listed as ENTT 294B; may be taken 4 times*
Transfer acceptability: *CSU*
Work on advanced television production including individual research, work on college produced programs, or internships at local broadcast stations, cable companies, and other communications facilities.

Reading (READ)

Contact Reading Services for further information.
(760) 744-1150, ext. 2568
Office: RC-1

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

READ 5 Corrective Learning and Reading Skills/Learning Disabled (3)
2 hours lecture - 3 hours laboratory
Note: *Pass/No Pass grading only; may be taken 4 times*
Non-degree Applicable
Individualized program for students who have specific learning disabilities. Intensive training in communication skills of reading, listening, and speaking.

READ 10 Spelling (1)
1 hour lecture
Note: *May be taken 2 times*
Non-degree Applicable
Provides necessary skills to increase spelling ability through an introduction to phonetics and the rules of orthography.

READ 11 Spelling II (1)
1 hour lecture
Note: *May be taken 2 times*
Non-degree Applicable
An intensive study and application of techniques necessary to improve college level spelling ability.

READ 30 Fundamental Reading Skills (2)
4 hours lecture/laboratory
Note: *Open Entry/Open Exit; Pass/No Pass grading only; may be taken 3 times*
Non-degree Applicable
An individualized computer assisted instruction program based on in depth testing, assessment, prescription and instruction for the improvement of students' reading comprehension. Emphasis is placed on reading skills and their application to college and life skills materials.

READ 47 Reading Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Non-degree Applicable
Topics in Reading. See class schedule for specific topic covered. Course title will designate subject covered.

READ 50 Reading Improvement (4)
3 hours lecture - 3 hours laboratory
Note: *May be taken 3 times*
A course designed to improve reading skills. Individual reading problems are diagnosed and improved through a variety of instructional materials and reading techniques. For students who need to remedy difficulties with reading comprehension, vocabulary, and fluency.

READ 110 Power Reading (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Intended for students with reading competencies who wish to enhance their reading ability by increasing reading speed, comprehension, fluency, vocabulary, and critical analysis. For students who do not have reading comprehension and vocabulary difficulties.

READ 115 Vocabulary Enhancement (2)
2 hours lecture
Transfer acceptability: *CSU*
Provides techniques to increase the precision and scope of language for everyday use. Emphasis is on the development of all aspects of college level vocabulary.

READ 120 Critical Reading (3)
3 hours lecture
Recommended preparation: *READ 110*
Transfer acceptability: *CSU*
Conceptual examination and application of critical reading, critical thinking, analysis and logical reasoning in multi-discipline and multi-cultural academic sources. Emphasis on advanced critical reading, logical reasoning/thinking, reflective judgment, and problem-solving skills that will lead to the ability to interpret, analyze, critically evaluate, and advocate ideas.

READ 197 Reading Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Reading. See Class Schedule for specific topic offered. Course title will designate subject covered.

Real Estate (RE)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: B-18

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Escrow
- Real Estate Broker License Preparation

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Escrow
- Real Estate Broker License Preparation

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
- Real Estate Appraisal License Preparation
- Real Estate Salesperson License Preparation

PROGRAMS OF STUDY

Escrow

Prepares students for employment as escrow officers.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
RE 100	Real Estate Principles	3
RE 105	Real Estate Finance	3
RE 120	Legal Aspects of Real Estate	3
RE 155	Escrow and the Title Procedures	3
RE 156	Advanced Escrow Procedures	3
RE 157	Escrow Problems	3
Electives (Select 2 courses, 5-7 units)		
ACCT 103 and	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Lab	1

BUS 110	Business Mathematics	3
BUS 115 or	Business Law	
BUS 116	Business Law	3
BUS 205	Business Writing	3
BMGT 110	Human Resource Management	3
OIS 102	Intermediate Keyboarding	2
RE 110	Real Estate Appraisal	3
RE 115	Real Estate Practice	3
RE 130	Real Estate Economics	3
RE 135	Real Estate Investments	3
RE 145	Real Estate Exchanges	3
RE 158	Current Trends in Escrow	3
CE 100*	Cooperative Education	2, 3, 4
TOTAL UNITS		**23 - 25**

* Applicable for C.E.A.'s Educational Achievement Award for full time students only. Completion of this certificate also qualifies students for the California Escrow Association's Educational Achievement Award.

Real Estate Appraisal License Preparation

A Real Estate Appraiser Trainee license is required of individuals who are to be employed as appraisers under the control and supervision of licensed or certified real estate appraisers. A license may be obtained by a person who does not immediately intend to be employed by an appraiser. However, no real estate appraisal activity may be performed unless the trainee is in the employ of a licensed or certified real estate appraiser.

An applicant to take the Real Estate Appraisal examination must:

1. Be at least 18 years of age or older.

2. Meet minimum Educational requirements:
   Applicants for the Trainee or Residential license must provide evidence of successful completion of 150 hours of real estate appraisal education, including 15 hours of USPAP (Uniform Standards of Professional Appraisal Practice). Applicants for the Certified Residential license must provide proof of completion of 200 hours of real estate appraisal education (including 15 hours of USPAP).

   Palomar College does NOT provide further training that will prepare a student to take the Certified General license.

3. Have the appropriate Experience:
   No experience is required before obtaining the Real Estate Appraiser Trainee license. 2,000 hours and encompassing no less than 12 months of acceptable appraisal experience is required before obtaining the residential license. 2,500 hours and encompassing no less than 2.5 years of acceptable appraisal experience is required before obtaining the Certified Residential license.

This program is designed to meet the educational requirements of two licensing levels of the Office of Real Estate Appraisers (Trainee, and Residential). RE 112 is recommended to meet the additional requirements of the Certified Residential License.

The program does NOT meet the requirements to prepare a student for the Certified General License.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
RE 100	Real Estate Principles	3
RE 110	Real Estate Appraisal	3
RE 111	Advanced Real Estate Appraisal	3
RE 150	Residential Appraisal	3
TOTAL UNITS		**12**

AQB/OREA Real Property Appraiser Qualifying Criteria (Effective January 1, 2008)			
OREA License Levels	**Basic Education Requirements**	**College Level Requirements**	**Experience**
Trainee (AT)	150 Hours	N/A	N/A
Residential	150 Hours	N/A	2,000 Hours (accumulated over at least a 12-month period)
Certified Residential (AR)	200 Hours	Associate Degree*	2,500 Hours (accumulated over at least a 30-month period)
Certified General (AG)	300 Hours	Bachelor's Degree**	3,000 Hours (accumulated over at least a 30-month period)

*In lieu of the Associate Degree, an applicant can complete 21 college semester credits in courses covering: English Composition; Principles of Economics (Micro or Macro); Finance, Algebra, Geometry, or higher mathematics; Statistics; Introduction to Computers; and Business or Real Estate Law.

**In lieu of the Bachelor's Degree, an applicant can complete 30 college semester credits in courses covering: English Composition; Micro Economics; Macro Economics; Finance, Algebra, Geometry, or higher mathematics; Statistics; Introduction to Computers; Business or Real Estate Law; and two elective courses in accounting, geography, ag-economics, business management, or real estate.

Real Estate Broker License Preparation

Preparation requirements for the Real Estate Broker Examination:

1. One of the following:
   Minimum of two years full-time licensed real estate salesperson experience within the last five years or the equivalent is required (part-time – 4 years)
   OR
   Four year degree
   OR
   Member of the bar of any state in the United States (which will also exempt you from the course requirements)
2. Complete the courses listed below:

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
RE 105	Real Estate Finance	3
RE 110	Real Estate Appraisal	3
RE 115	Real Estate Practice	3
RE 120	Legal Aspects of Real Estate	3
RE 130 or	Real Estate Economics	3
ACCT 103 and	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Lab	1
Electives (Select *6 or 9 units)		
***If ACCT 103, 104, and RE 130 are all three completed, only 6 units are required from the electives below:**		
BUS 115	Business Law	3
BUS 116	Business Law	3
RE 100	Real Estate Principles	3

RE 111	Advanced Real Estate Appraisal	3
RE 140	Introduction to Property Management	3
RE 155	Escrow and the Title Procedures	3
RE 156	Advanced Escrow Procedures	3
TOTAL UNITS		**24 - 26**

Real Estate Salesperson License Preparation

A Real Estate Salesperson license is required of individuals who are to be employed as salespersons under the control and supervision of a licensed real estate broker.

Minimum Requirements to qualify to take the Real Estate Salesperson examination:

1. Age – 18 years of age or older.
2. Residence – Must be a legal resident of California.
3. Honesty – License applicants must be honest and truthful.
4. Education – Applicants must provide evidence of successful completion of three courses: Real Estate Principles, Real Estate Practice, and one additional elective course listed below. Completion of the Real Estate Salesperson License Preparation Certificate satisfies the California Department of Real Estate-mandated pre-license requirements.

This program is designed to prepare the student for an entry-level position in the Real Estate sales field.

CERTIFICATE OF PROFICIENCY

Program Requirements		**Units**
RE 100	Real Estate Principles	3
RE 115	Real Estate Practice	3
Electives (Select 3-5 units)		
ACCT 103 and	Financial Accounting	
ACCT 104	Accounting Spreadsheet Lab	5
BUS 115	Business Law	3
RE 105	Real Estate Finance	3
RE 110	Real Estate Appraisal	3
RE 120	Legal Aspects of Real Estate	3
RE 130	Real Estate Economics	3
RE 140	Introduction to Property Management	3
RE 155	Escrow and the Title Procedures	3
RE 156	Advanced Escrow Procedures	3
TOTAL UNITS		**9 - 11**

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

RE 49 California Real Estate License Exam Preparation (.5)
½ hour lecture
Prerequisite: *A minimum grade of 'C' in RE 100*
Note: *Pass/No Pass grading; may be taken 2 times.*
Non-degree Applicable
A specific review of materials included in the California Real Estate Licensing Exams (Salesperson and Broker). Testing techniques, stress management, and study skills will be covered.

RE 100 Real Estate Principles (3)
3 hours lecture
Note: *This course is one of three mandatory classes required to be completed before the Real Estate Salesperson Exam can be taken. A grade of 'C' must be earned in this course before a Real Estate Salesperson License will be awarded.*
Transfer acceptability: *CSU*
Basic laws and principles of California real estate. Gives understanding, background, and terminology necessary for advanced study in specialized courses.

RE 105 Real Estate Finance (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in RE 100 or real estate license*
Transfer acceptability: *CSU*
Analysis of real estate financing, including lending policies and problems in financing transactions in residential, apartment, commercial, special purpose properties, and land. Conventional and governmental programs emphasized.

RE 110 Real Estate Appraisal (3)
3 hours lecture
Recommended preparation: *RE 100 or real estate license*
Transfer acceptability: *CSU*
An introductory course covering the purposes of appraisals, the appraisal process, and the different approaches, methods, and techniques used to determine the value of various types of property. Emphasis will be on residential and single unit property.

RE 111 Advanced Real Estate Appraisal (3)
3 hours lecture
Recommended preparation: *RE 110 or 130*
Transfer acceptability: *CSU*
Emphasis will be on the residential sales comparison and income approaches. Covers valuation principles and procedures applicable to both approaches. Includes fifteen hours of the Uniform Standards of Professisonal Appraisal Practice, required of students applying for the real estate residential and certified residential exam.

RE 112 Business Appraisal (3)
3 hours lecture
Recommended preparation: *RE 100, 111, or BUS 100*
Transfer acceptability: *CSU*
Provides specialized training for licensed real estate salespersons, brokers, and appraisers in the methods and techniques used to evaluate small businesses.

RE 115 Real Estate Practice (3)
3 hours lecture
Recommended preparation: *RE 100 or real estate license*
Transfer acceptability: *CSU*
Note: *This course is one of three state mandatory classes required to be completed before the Real Estate Salesperson Exam can be taken.*
Day to day operations in real estate roles and brokerage, including listing, prospecting, advertising, finance, taxation, investing, sales techniques and escrow. Class will include professional behavior and ethics.

RE 120 Legal Aspects of Real Estate (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in RE 100 or real estate license*
Transfer acceptability: *CSU*
A study of California real estate law, including rights incident to property ownerships and management, agency, contracts, and application to real estate transfer, conveyancing, probate proceedings, trust deeds and foreclosure, as well as recent legislation governing real estate transactions. Applies toward educational requirement of broker's examination.

RE 130 Real Estate Economics (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in RE 100 or real estate license*
Transfer acceptability: *CSU*
Deals with those trends and factors which affect the value of real estate; the nature and classification of land economics, the development of property, construction and sub division, economic values and real estate evaluation; real estate cycles and business fluctuations, residential market trends, and real property trends.

RE 135 Real Estate Investments (3)
3 hours lecture
Transfer acceptability: *CSU*
Real estate investing for the layperson; basic factors in the investment field; selection of real estate investments; methods of analyzing and appraising real property; expanding tax benefits and consequences; real estate investment; modern methods of group purchases through various types of syndications, including limited partnerships and real estate investment trust; and case studies of actual or hypothetical investments. The State Department of Real Estate has given special approval for this course to be used in the
elective group for the Real Estate Salesperson and Broker State License.

RE 140 Introduction to Property Management (3)
3 hours lecture
Recommended preparation: *A minimum grade of 'C' in RE 100 or real estate license*
Transfer acceptability: *CSU*
A practical approach to the principles and practices of managing income properties, including leasing, collections, and rent schedule; budget and purchasing, market economics; evictions; maintenance; taxation; and record keeping.

RE 145 Real Estate Exchanges (3)
3 hours lecture
Transfer acceptability: *CSU*
A fundamental course for real estate licensees who have had broad experience in residential, commercial, and urban land transactions. Theory of exchanges, building of estates, income tax advantages, and trends of the market. By means of case studies actual exchanges are analyzed, planned, and executed.

RE 150 Residential Appraisal (3)
3 hours lecture
Recommended preparation: *RE 100 and RE 111*
Transfer acceptability: *CSU*
Provides specialized training for licensed real estate salespersons, brokers, and appraisers in the methods and techniques used to evaluate residential property.

RE 155 Escrow and the Title Procedures (3)
3 hours lecture
Recommended preparation: *RE 100 or real estate license*
Transfer acceptability: *CSU*
Escrow procedures including the processing and close of sale and loan escrows, the familiarizations and drawing of documents, prorations, title searches, title reports, and other details pertinent to efficient escrow proceedings.

RE 156 Advanced Escrow Procedures (3)
3 hours lecture
Recommended preparation: *RE 155*
Transfer acceptability: *CSU*
Advanced course covering the more difficult and unusual types of escrow. Case problems on exchanges and condominiums as well as personal property escrows.

RE 157 Escrow Problems (3)
3 hours lecture
Recommended preparation: *RE 156*
Transfer acceptability: *CSU*
Further study of the more unusual and difficult types of escrows with particular attention to those wherein conflict or dispute arises. Actual case problems are presented for evaluation and discussion. Some cases include compliance with conditions, agency relationships, wrongful delivery, conditional deposits, liability assignments, delivery, and escrow instructions.

RE 158 Current Trends in Escrow (3)
3 hours lecture
Recommended preparation: *RE 157*
Transfer acceptability: *CSU*
A refresher course for Escrow officers and supervisors covering current problems, legislation, and court cases. Open discussions and exchange of ideas will be expected of participants.

RE 197 Real Estate Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Real Estate. See Class Schedule for specific topic offered. Course title will designate subject covered.

Recreation (REC)

Contact the Physical Education Department for further information.
(760) 744-1150, ext. 2462
Office: O-10
For transfer information, consult a Palomar College Counselor.

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Outdoor Leadership
- Recreation Agency Leader

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Outdoor Leadership
- Recreation Agency Leader

PROGRAMS OF STUDY

Outdoor Leadership

Provides the skills necessary for work as a leader in outdoor activities for federal, state, municipal, and private recreational agencies.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AJ 100	Introduction to Criminal Justice	3
GCIP 170	Screen Printing	4
HE 100	Health Education and Fitness Dynamics	3
PE 104/EME 100	Advanced First Aid	3
REC 110	Community Recreation	3
CE 100	Cooperative Education	3,4
TOTAL UNITS		**19 - 20**

Recommended Elective: PE 230

Recreation Agency Leader

Provides the skills necessary for work as a leader in a municipal or private recreation program.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Required Courses		Units
AJ 100	Introduction to Criminal Justice	3
GCIP 170	Screen Printing	4
HE 100	Health Education and Fitness Dynamics	3
PE 104/EME 100	Advanced First Aid	3
REC 110	Community Recreation	3
REC 120	Recreational Team Sports	2
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**19 - 22**

Recommended Electives: MUS 197; PE 230

COURSE OFFERINGS

REC 110 Community Recreation (3)
3 hours lecture
Transfer acceptability: *CSU*
Scope of community recreation; basic philosophy of leisure time agencies and organizations for youth; program planning; playground practices; basic systems of organization; and policy formation.

REC 115 Recreational Leadership (3)
3 hours lecture
Transfer acceptability: *CSU*
Program planning and principles of group leadership; organized games and special events, playground management.

REC 120 Recreational Team Sports (2)
2 hours lecture
Transfer acceptability: *CSU*
The planning, organizing, of team sports designed to serve the interest of all people in a recreational setting. The course is designed to provide the methods and organization for group instruction in team sports including softball, soccer, touch football, volleyball, and basketball.

Religious Studies (RS)

See also American Indian Studies, Anthropology, History, Judaic Studies, Philosophy

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2330
Office: W-1

COURSE OFFERINGS

RS 101 World Religions (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A comparative study of the practices, beliefs, institutions, and core characteristics of the major religions of the world: Western, Asian, and indigenous.

RS 102 Religion in American History (3)
3 hours lecture
Transfer acceptability*: CSU; UC*
Examines the role of religion and religious groups in key events, time periods, regions, and institutions of the United States. The course concentrates on the interaction of religious groups with each other and with the larger society, particularly in relation to political, economic, geographical, and cultural life of the nation. Topics include colonialism, the Revolution, anti-slavery, the expansion west, the Civil War, immigration, the World Wars, the Great Depression, the Civil Rights Movement, and the 1960s.

RS 105 Ritual/Symbol/Myth: Ways of Understanding Religion (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The course introduces students to the religious dimensions of ritual, symbol, and myth in order to explore the nature of religion in traditional settings and in the popular cultures of the present.

RS 106 Introduction to Judaism I (3)
3 hours lecture
Note: *Cross listed as JS 106*
Transfer acceptability: *CSU; UC*
The philosophy, religion and ethnic culture of the Jewish people from the Patriarchs and Prophets through the modern branches of Judaism. Topics covered include Torah, Talmud, various commentaries and movements affecting Judaism; ceremonies, artifacts, and language.

RS 107 Introduction to Judaism II – Culture (3)
3 hours lecture
Note: *Cross listed as JS 107*
Transfer acceptability: *CSU; UC*
A survey of the cultural and historical roots of the Jewish people from 2000 B.C. to the present; their role in the ancient Near East; relationships in the Western World from the Greco Roman period to the post World War II era; creation and development of the state of Israel; cultural, religious, and political impact on America and the world community.

RS 108 History of Christianity (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of movements, institutions, and communities in the history of Christianity from the first century to the twentieth century. Concentrates on socio-political influences, contexts, and consequences related to Christian history.

RS 110 Religion in America (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to the rich diversity of religious experience in the United States exploring the impact religion has had on our nation's history and culture. Native American, Asian, African-American, Jewish, Roman Catholic, Protestant, and sectarian movements will be discussed.

RS 120 Religion and Moral Issues (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Introduction to the role of religion in moral decision-making, focusing on major religions of the world and on current issues of ethical concern.

RS 124 Islamic Cultures and Traditions (3)
3 hours lecture
Note: *Cross listed as MCS 124*
Transfer acceptability: *CSU; UC*
An introductory course designed for students with a general interest in the Islamic world, including its history and cultural traditions. Examines the main social, traditional and legal institutions of Islam.

RS 197 Religious Studies Topics (1-3)
Units awarded in topics courses are dependent upon the number of lecture hours required of the student. Refer to Class Schedule.
Note: *May be taken 4 times.*
Transfer acceptability: *CSU; UC - Credit determined by UC upon review of course syllabus.*
Topics in Religious Studies. See Class Schedule for specific topic offered. Course title will designate subject covered.

Secretarial

See Office Information Systems

Sign Language

See American Sign Language

Sociology (SOC)

See also American Indian Studies, Africana Studies, Chicano Studies

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2329
Office: W-16

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Alcohol and Other Drug Studies
- Psychological and Social Services

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Alcohol and Other Drug Studies
- Psychological and Social Services

PROGRAM OF STUDY

Alcohol and Other Drug Studies

Provides the student with the academic training and hands on experience for entry-level employment in delivery of alcohol and other drug treatment services in agency settings and serves as a preparation for California state examinations as a certified addictions treatment counselor by CAADE and as a certified alcoholism and drug abuse counselor by CAADAC.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
PSYC 100	Introduction to Psychology	3
PSYC/SOC/ AODS 150	Introduction to Alcohol and Other Drug Studies	3
PSYC/SOC/ AODS 155	The Physiology and Pharmacology of Psychoactive Drugs	3
PSYC/SOC/ AODS 160	Prevention, Intervention, and Education	3
PSYC 225	Psychology of Abnormal Behavior	3
PSYC/SOC/ AODS 250	Group Leadership and Process	3
PSYC/SOC/ AODS 255	Treatment Modalities, Law and Ethics	3
PSYC/SOC/ AODS 260	Chemical Dependency Family Counseling	3
PSYC/SOC/ AODS 299	Directed Field Experience II	6
Group One (Select 3 units)		
SOC 100	Introduction to Sociology	3
SOC 110	Social Problems	3
Group Two (Select 4-5 units)		
PSYC/SOC/ AODS 140	Introduction to Psychological and Social Services	3
PSYC/SOC/ AODS 298	Directed Field Experience I	5
TOTAL UNITS		**37 - 38**

Alcohol and Other Drug Studies is also listed in Alcohol and Other Drug Studies and in Psychology.

Psychological and Social Services

Provides the student with the academic training and hands on experience for entry-level employment in human services and serves as preparation for upper division course work.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
COUN 100	Introduction to Basic Counseling Skills	3
PSYC 100	Introduction to Psychology	3
PSYC/SOC/ AODS 140	Intro to Psychological and Social Services	4
PSYC 225	Psychology of Abnormal Behavior	3
PSYC 235	Learning/Behavior Modification	3
PSYC/SOC/ AODS 298	Directed Field Experience I	5
SOC 100	Introduction to Sociology	3
SOC 110	Social Problems	3
Electives (Select 3 units)		
PSYC/SOC 105	Marriage, Family and Intimate Relationships	3
PSYC 110	Developmental Psychology – Child/Adult	3
PSYC 115	Psychology of Personal Growth	3
PSYC/SOC 120	Social Psychology	3
PSYC/SOC 145	Psychology and Sociology of Aging	3
PSYC/SOC/ AODS 155	Physiology/Pharmacology of Psychoactive Drugs	3
TOTAL UNITS		**30**

Psychological and Social Services A.A. Degree or Certificate of Achievement is also listed in Psychology.

COURSE OFFERINGS

SOC 100 Introduction to Sociology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of the principles and problems pertaining to group behavior, the relationships among human beings, the development and nature of institutions, and the structure of society.

SOC 105 Marriage, Family, and Intimate Relationships (3)
3 hours lecture
Note: *Cross listed as PSYC 105*
Transfer acceptability: *CSU, UC*
A study of the psychology and sociology of the family and intimate relationships. Emphasizes factors that enhance interpersonal relationships. Topics include love, marital choice, communication, conflict, and changing models of the family. Examines cross-cultural and historical factors that impact the family as a social institution and the impact of gender, race and ethnicity, social class, age, and sexual orientation on family organization.

SOC 110 Social Problems (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Identification and analysis of contemporary social problems in the United States, with emphasis on the sociological factors involved. Topics include poverty and economic inequality; gender inequality; racial and ethnic inequality; problems in the family, government, education, and the economy; crime; drug use; warfare and violence, among others. A critical evaluation of the causes and solutions.

SOC 115 Introduction to Women's Studies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
The study of the position of women in American society from a sociological and cultural perspective. Topics to be studies include the theoretical approaches to studying gender; the impact of race and ethnicity, class, nationality, and sexual orientation on women's lives; cross-cultural variations in gender roles; the socialization of women; women's role in the major social institutions – the family, education, the political system, religion, the economy, and the mass media; violence against women; and feminism as a social movement.

SOC 120 Social Psychology (3)
3 hours lecture
Note: *Cross listed as PSYC 120*
Transfer acceptability: *CSU; UC*
Explores relationships between the behavior of individuals and the structure of society. Emphasizes the importance of language, roles, and the concept of the self in the socialization process.

SOC 125 Human Sexuality (3)
3 hours lecture
Note: *Cross listed as PSYC 125*
Transfer acceptability: *CSU; UC*
Survey of topics pertinent to an understanding of the development of human sexuality. Emphasis on biological, psychological, and cultural determinants of sexual behavior. Current sex norms and various aspects of interpersonal and individual sexual adjustment.

SOC 130 Introduction to Sociology of Health (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course presents a broad introduction to sociological concepts and ideas related to the study of health and medicine in the United States. Emphasis will be on understanding the relationship between social factors and health, the cultural meanings associated with health and illness, the social behavior of health care personnel and people who utilize health care, the political controversies surrounding health care, and the structure of social institutions that form the health care industry. Throughout the course, there will be a focus on culture (African Americans, Latinos/Latinas), gender, age, socioeconomic status, sexual orientation and disabilities and how these factors influence the experience of health and illness.

SOC 140 Introduction to Psychological and Social Services (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as AODS 140/PSYC 140*
Transfer acceptability: *CSU*
Supervised internship in a human service agency or an alcohol and other drug treatment facility. An overview of the field of human services, including alcohol and other drug treatment. The roles of psychologists, sociologists, social workers, family therapists, social service assistants and addiction counselors are compared and contrasted, and the issues they deal with are described. Through cooperative efforts of provider agencies, the instructor, and the student, the skills utilized for entry-level employment are observed, practiced, and evaluated under supervision.

SOC 145 Psychology and Sociology of Aging (3)
3 hours lecture
Note: *Cross listed as PSYC 145*
Transfer acceptability: *CSU*
A multi disciplinary approach to the field of gerontology; historical, demographic, psychological, and sociological aspects of aging.

SOC 150 Introduction to Alcohol and Other Drug Studies (3)
3 hours lecture
Note: *Cross listed as AODS 150/PSYC 150*
Transfer acceptability: *CSU*
Examines alcohol, tobacco and psychoactive drugs in society. Biological, psychological and socio-cultural factors of drug abuse and dependence will be explored. The impact of addiction on families and society; contemporary treatment techniques, and the addiction counseling profession will be covered.

SOC 155 The Physiology and Pharmacology of Psychoactive Drugs (3)
3 hours lecture
Note: *Cross listed as AODS 155/PSYC 155*
Transfer acceptability: *CSU*
This course will examine how psychoactive drugs affect the nervous system. Ways of classifying drugs will be identified including the processes of physical and psychological dependence, tolerance, withdrawal, and genetic predispositions. Temporary and long-term affective, behavioral, cognitive, biological, and social consequences of psychoactive drug use will be explored, including disorders such as Korsakoff's syndrome and other nutritional deficiencies.

SOC 160 Prevention, Intervention, and Education (3)
3 hours lecture
Note: *Cross listed as AODS 160/PSYC 160*
Transfer acceptability: *CSU*
This course will review historical and contemporary approaches for chemical dependency, including prevention, intervention, and education. It will analyze the progression of substance abuse and chemical dependency disorders and will evaluate types of prevention, education, and intervention strategies.

SOC 197 Special Topics in Sociology (1, 2, 3)
1, 2, or 3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Current topics in sociology will be discussed in lecture or seminar formats. Issues in such areas as deviance, stratification, demography, gender roles, death and dying, new immigrant groups, and others will be analyzed in cultural context from various theoretical perspectives. Content will vary from semester to semester.

SOC 200 Race, Class, and Ethnic Groups in America (3)
3 hours lecture
Note: *Cross listed as AMS200/MCS 200*
Transfer acceptability: *CSU; UC*
This course is designed to introduce the topics of intergroup relations in general to superordinate-subordinate relations in particular, as exemplified in various racial, ethnic, social class, and cultural groups. Emphasis is primarily on contemporary relations in the United States, although a comparative perspective is also offered.

SOC 205 Statistics for the Behavioral Sciences (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or 60 or eligibility determined through the math placement process*
Note: *Cross listed as PSYC 205*
Transfer acceptability: *CSU; UC – BIOL 215, MATH 120, and PSYC/SOC 205 combined: maximum credit, one course*
Quantitative methods as applied to behavioral science data. Frequency distributions, measures of central tendency, variability, theory of error, measures of significance, correlation, regression, and an introduction to analysis of variance. Also included is an introduction to the use of computers in statistics.

SOC 205L Data Analysis in Psychology and Sociology (1)
3 hours laboratory
Corequisite: *PSYC/SOC 205*
Note: *Cross listed as PSYC 205L*
Transfer acceptability: *CSU; UC*
Use of the computer as a tool for calculating statistics and exploring data in Psychology and Sociology.

SOC 250 Group Leadership and Process (3)
3 hours lecture
Note: *Cross listed as AODS 250/PSYC 250*
Transfer acceptability: *CSU*
An introduction to the dynamics of group interaction, with emphasis upon the individual's firsthand experience as the group studies itself under supervision. Problems of communication, effective emotional responses, and personal growth will be highlighted. The emphasis will be upon group process as a means of changing behavior.

SOC 255 Treatment Modalities, Law and Ethics (3)
3 hours lecture
Note: *Cross listed as AODS 255/PSYC 255*
Transfer acceptability: *CSU*
This course reviews the principles and practices of addiction treatment including screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, education of clients and their families, referral, report and record keeping, and consultation. Legal and ethical standards of practice for addictions counselors will be reviewed and included in this body of knowledge, skills, and attitudes.

SOC 260 Chemical Dependency Family Counseling (3)
3 hours lecture
Note: *Cross listed as AODS 260/PSYC 260*
Transfer acceptability: *CSU*
This course is designed to explore methods of assisting family members and others to understand and to cope with the alcohol and drug abuse of alcoholics and addicts. Several family therapy modalities will be explored. The approach will be experiential in format and students will participate in exercises that lead to the development of these skills.

SOC 296 Special Problems in Sociology (1, 2, 3)
1, 2, or 3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
An individualized or group project in sociology of any nature. Extensive use of slides and other illustrative materials.

SOC 298 Directed Field Experience I (5)
3 hours lecture-6 hours laboratory
Note: *Cross listed as AODS 298/PSYC 298*
Transfer acceptability: *CSU*
Supervised internship in a human service agency or an alcohol and other drug treatment facility. The student intern will have an opportunity to observe human service providers working with clients in agency settings. Ethical guidelines for helping professions, developing cultural competence, stages of change and motivational interviewing as a helping style are discussed. Interns practice interviewing skills for increasing motivation for positive change.

SOC 299 Directed Field Experience II (6)
3 hours lecture-9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AODS 140/SOC 140/PSYC 140 or AODS 298/SOC 298/PSYC 298*
Note: *Cross listed as AODS 299/PSYC 299*
Transfer acceptability: *CSU*
Supervised internship in an alcohol and other drug treatment facility. This course emphasizes advanced concepts in chemical dependency. Students refine their skills for the 12 core functions of effective clinical practice and compile a professional portfolio in preparation for the state certifying written exam. This course meets the 45-hour supervised practicum requirement for the California Certification Board of Alcohol and Drug Counselors.

Spanish (SPAN)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

An activity may be taken four times for credit. Activity is defined to include all ability levels (e.g., A student may take a total of only four Conversation courses for credit).

Courses numbered under 100 are not intended for transfer credit.

SPAN 50 Beginning Conversation (3)
3 hours lecture
Note: *May be taken 2 times*
This is the first course in the two-course series of Beginning Spanish conversation. Emphasis is on speaking and listening through the use of everyday vocabulary and communicative skills. Reading and writing skills will be developed from involvement with the spoken language. The course will also introduce students to the cultures of the Spanish-speaking world.
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SPAN 51 Intermediate Conversation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 50*
Note: *May be taken 2 times*
This is the second course in the two-course series of Beginning Spanish conversation. Emphasis is on speaking and listening, using everyday vocabulary and communicative skills. Reading and writing skills will be developed from involvement with the spoken language. This course will also introduce students to the cultures of the Spanish-speaking world.

SPAN 80 Spanish Through Song (1)
1 hour lecture
A highly participatory course in which students of all levels develop and improve pronunciation skills, listening comprehension skills, vocabulary and certain basic grammar concepts by means of pedagogically chosen and enjoyable Spanish songs representing a variety of forms such as Salsa, Romantica, Cumbia, Mariachi, Popular Music and Latin Rock. Students become dynamically aware that songs are an essential expression of Hispanic culture.

SPAN 101 Spanish I (5)
5 hours lecture-1 hour laboratory
Transfer acceptability: *CSU; UC*
This course is the first semester of Spanish. This elementary level course is a study of the Spanish language and Spanish-speaking cultures, with emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in Spanish.

SPAN 101A Spanish IA (3)
3 hours lecture
Note: *Covers the first half of SPAN 101; not open to students with credit for SPAN 101*
Transfer acceptability: *CSU; UC*
Spanish 101A is equivalent to the first half of Spanish 101. This elementary level course is a study of the Spanish language and Spanish-speaking cultures, with emphasis on the development of communicative skills and basic structures. This beginning-level course is for students with no previous coursework in Spanish

SPAN 101B Spanish IB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 101A or one year of high school Spanish*
Note: *Covers the second half of SPAN 101; not open to students with credit for SPAN 101*
Transfer acceptability: *CSU; UC*
Spanish 101B is equivalent to the second half of Spanish 101, and is a continuation of Spanish 101A. This elementary level course is a study of the Spanish language and Spanish-speaking cultures, with emphasis on the development of communicative skills and basic structures.

SPAN 102 Spanish II (5)
5 hours lecture-1 hour laboratory
Prerequisite: *A minimum grade of 'C' in SPAN 101 or 101B or two years of high school Spanish*
Transfer acceptability: *CSU; UC*
This course is the second semester of Spanish. This elementary level course is a study of the Spanish language and Spanish-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

SPAN 102A Spanish IIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 101 or 101B or two years of high school Spanish*
Note: *Covers the first half of SPAN 102; not open to students with credit for SPAN 102*
Transfer acceptability: *CSU; UC*
Spanish 102A is equivalent to the first half of Spanish 102. This elementary level course is a study of the Spanish language and Spanish-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

SPAN 102B Spanish IIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 102A or two years of high school Spanish*
Note: *Covers the second half of SPAN 102; not open to students with credit for SPAN 102*
Transfer acceptability: *CSU; UC*
102B is equivalent to the second half of Spanish 102, and is a continuation of Spanish 102A. This elementary level course is a study of the Spanish language and Spanish-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

SPAN 201 Spanish III (5)
5 hours lecture-1 hour laboratory
Prerequisite: *A minimum grade of 'C' in SPAN 102 or 102B or three years of high school Spanish*

Transfer acceptability: *CSU; UC – SPAN 201 and 240 combined: maximum credit, one course*
This course is the third semester of Spanish. This intermediate level course is a study of the Spanish language and Spanish-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Spanish. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory. Class is largely conducted in Spanish.

SPAN 201A Spanish IIIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 102 or 102B or three years of high school Spanish*
Note: *Covers the first half of SPAN 201; not open to students with credit for SPAN 201*
Transfer acceptability: *CSU; UC*
Spanish 201A is equivalent to the first half of Spanish 201. This intermediate level course is a study of the Spanish language and Spanish-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Spanish. Class is largely conducted in Spanish.

SPAN 201B Spanish IIIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 201A*
Note: *Covers the second half of SPAN 201; not open to students with credit for SPAN 201*
Transfer acceptability: *CSU; UC*
Spanish 201B is the second half of Spanish 201, and is a continuation of Spanish 201A. This intermediate level course is a study of the Spanish language and Spanish-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Spanish. Class is largely conducted in Spanish.

SPAN 202 Spanish IV (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 201 or four years of high school Spanish*
Transfer acceptability: *CSU; UC – SPAN 202 and 241 combined: maximum credit, one course*
This course is the fourth semester of Spanish. This intermediate level course is a study of the Spanish language and of special topics on the culture of the Spanish-speaking world. Emphasis is on further development of cross-cultural awareness, as well as, the development of oral, listening, reading and writing skills in order to improve communicative competence in Spanish. Class is largely conducted in Spanish.

SPAN 215 Advanced Spanish (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 202*
Transfer acceptability: *CSU; UC*
Advanced grammar and composition.

SPAN 216 Advanced Spanish Conversation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 202*
Transfer acceptability: *CSU; UC*
Topics in Spanish language and culture with emphasis on improving fluency and building vocabulary.

SPAN 235 Intermediate Conversation and Writing (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 201*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Topical discussions, oral and written themes, and practical vocabulary.

SPAN 295 Directed Study in Spanish (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *May be taken 4 times for a maximum of six units*
Transfer acceptability: *CSU: UC - Credit determined by UC upon review of course syllabus.*
Individual study in areas of Spanish language or culture. Designed for the student who has the initiative to work independently on a topic that is outside the scope of regularly scheduled classes.

SPAN 296 Special Studies in Spanish (1, 2, 3)
1,2, or 3 hours lecture
Note: *May be taken 4 times for a maximum of six units*
Transfer acceptability: *CSU: UC - Credit determined by UC upon review of course syllabus.*
Improve Spanish language competency and cultural awareness through individualized study, lectures, or class excursions. Undertaken during regular sessions, summer, or vacations.

Speech (SPCH)

Contact the Speech Communication/Forensics/ASL Department for further information.
(760) 744-1150, ext. 2405
Office: IT-7A

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Speech Communication

PROGRAM OF STUDY

Speech Communication

Prepares the student for employment in programs where advanced speaking skills are necessary. Transfer students should consult the four year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. DEGREE MAJOR

Program Requirements		Units
SPCH 100	Oral Communication	3
SPCH 105	Beginning Argumentation and Debate	3
SPCH 115	Interpersonal Communication	3
SPCH 120	Human Communication	3
SPCH/TA125	Beginning Oral Interpretation	3
SPCH 131	Intercultural Communication	3
TOTAL UNITS		**18**

COURSE OFFERINGS

SPCH 100 Oral Communication (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to the fundamental principles and techniques of public address. Students will frequently prepare and present talks of informative or persuasive intent. Emphasis will be placed on the collection, analysis, and organization of material appropriate to typical public address situations, as well as on the linguistic, vocal, and physical skills needed for effective delivery.

SPCH 105 Beginning Argumentation and Debate (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 100*
Transfer acceptability: *CSU; UC*
Argumentative theory and practice including burden of proof, logical analysis, research, types and uses of evidence, deductive and inductive reasoning, logical fallacies, written argumentative essay construction, refutation, rebuttal, and argument evaluation paradigms. Basic written communication skills are developed through composing, drafting, reviewing, and rewriting (1) analytical topic area essays, (2) affirmative and negative cases, and (3) written peer evaluation essays. Oral communication skills are developed through the agency of public debate. Critical perspectives on values and public policy, including examinations of diverse paradigms are emphasized.

SPCH 115 Interpersonal Communication (3)
3 hours lecture
Transfer acceptability: *CSU*
Introduction to the fundamental principles and terms of communication study in the interpersonal or face-to-face context. Analysis of communication patterns in developing, stable, and deteriorating relationships. Topics include communication rules and competence, perception and empathy, love, and family interaction.

SPCH 120 Human Communication (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A comprehensive introduction to the study of human communication processes including verbal and nonverbal modalities. Human abilities are compared to the communication systems of other species. Key definitions and concepts in communication theory are reviewed. Communication processes in personal, public, and mass mediated contexts are analyzed.

SPCH 125 Beginning Oral Interpretation (3)
3 hours lecture
Note: *Cross listed as TA 125*
Transfer acceptability: *CSU; UC*
An introduction to the oral reading of prose, poetry, and drama in distinct and intertextual formats. Models of critical analysis will be applied to written literature and reading will be performed and evaluated by applying principles of effective delivery.

SPCH 131 Intercultural Communication (3)
3 hours lecture
Transfer acceptability: *CSU*
Introduction to the fundamental principles and terms of communication study in intercultural or cross-cultural contexts. Analysis of the opportunities and problems presented by national, ethnic, linguistic, and gender-based variation in verbal and nonverbal behaviors.

SPCH 145 Management of Speech Activities (1)
3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Planning, preparation, management, and supervision of speech tournaments and other interscholastic speech activities.

SPCH 150 Debate Research (1)
3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Advanced debate training including investigation and research of the national intercollegiate debate resolution.

SPCH 160 Practical Public Speaking (1)
3 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Thorough individual preparation for effective oral communication in a variety of speech situations. This class will make up the college forensics team and the student speaker's bureau; students will be selected from classes in the speech curricula. Required of all students participating in intercollegiate competitive speech activities.

SPCH 197A Topics in Speech Communication (1-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Topics in Speech Communication. See Class Schedule for specific topic offered. Course title will designate subject covered.

SPCH 290 Competitive Intercollegiate Forensics (3)
9 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Advanced projects including individual research. Tutoring and performance for college classes and community including reader's theatre; informative, persuasive, entertaining, extemporaneous, and impromptu speaking; communication analysis, prose, poetry, duo interpretation, programmed reading, and debate.

Tagalog (TAG)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: F-5

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

TAG 101 Tagalog I (5)
5 hours lecture-1 hour laboratory
Transfer acceptability: CSU; UC
This course is the first semester of Tagalog. This elementary course is a study of pronunciation, essentials of grammar, reading, speaking, and writing. Relationship between language and culture.

TAG 102 Tagalog II (5)
5 hours lecture-1 hour laboratory
Prerequisite: A minimum grade of 'C' in TAG 101, or two years of high school Tagalog
Transfer acceptability: CSU; UC
This course is the second semester of Tagalog. This elementary level course is a study of the Tagalog language and Tagalog-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

TAG 201 Tagalog III (5)
5 hours lecture
Prerequisite: A minimum grade of 'C' in TAG 102 or three years of high school Tagalog
Transfer acceptability: CSU; UC
This course is the third semester of Tagalog. This intermediate level course is a study of grammar, review, composition, and continued oral practice. Appreciation of Tagalog culture through composition and oral practice assignments.

Theatre Arts (TA)

Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: D-16

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Theatre Arts
- Theatre Arts-Emphasis in Acting

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Entertainment Technology
- Theatre - Technical

PROGRAMS OF STUDY

Entertainment Technology

This program will prepare students for employment in the fields of entertainment technologies at entry level. The areas of potential employment include theme parks, casinos, cruise ships, concerts, gallery display and design, event installations, live event technical support, and theatre venues providing non-theatre related events. Basic rigging and production safety will be a component of this program.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CSNT 110	Hardware and O.S. Fundamentals	3
ENTT 100	Introduction to Entertainment Technology	1
ENTT/RTV 103	Introduction to Audio-Visual Systems	3
ENTT/TA 105	Introduction to Technical Theatre	2.5
ENTT/TA 107	Lighting for Stage and Television	3
ENTT/TA 112	Entertainment Audio Production	3
ENTT/RTV 130	Radio Production	3
TA 197D	Stage Crew Workshop	2
TA 297 or	Experimental Topics in Theatre	
ENTT/RTV 294B	Television Internships/Production	1
Electives (Select 11 units)		
ENTT/RTV 294B	Television Internships/Production	1, 2, 3
FASH 126	Fashion Show Presentation	1
FASH 135	Basic Sewing Construction	3
FASH 139	Pattern Making/Fashion Design	3
RTV 100	Introduction to Radio/TV	3
RTV 120/		
ENTT 120	Digital Television Production	3
RTV 230	Digital Audio with Pro Tools	3
TA 106	Elementary Stage Costume	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and TV	3
TA 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	.5
TA 170	Computer Aided Drafting for Theatre	3
TA 297	Experimental Topics in Theatre	1-3
WELD 100	Welding I	3
TOTAL UNITS		**32.5**

Entertainment Technology Certificate of Achievement is also listed in Entertainment Technology and in Radio and Television.

Theatre Arts

Prepares the student with foundation skills and coccepts to pursue a career in the theatre arts. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. DEGREE MAJOR

Program Requirements		**Units**
TA 100	Introduction to the Theatre	3
TA/ENTT 105	Introduction to Technical Theatre	3
TA 109	Elementary Stage Make-Up	3
TA 115	Beginning Acting I: Fundamentals	3
TA 140 or	History/Theatre thru 17th Century	
TA 141	History/Theatre/18th Century to the Present	3
TA 150	Dramatic Literature	3
TA 197D	Stage Crew Workshop	.5-3
Plus three of the following courses:		
TA/ENTT 107	Lighting for Stage and Television	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and TV	3
TA/ENTT 112	Entertainment Audio Production	3
TA 116	Beginning Acting II: Scene Study	3
TA 119	Voice and Speech	3
TA/SPCH 125	Beginning Oral Interpretation	3
TA/MCS 157	Theatre and Social Justice	3
TA 215	Intermediate Action I: Styles	3
TA 217	Intensive Actor Training	3
TOTAL UNITS		**27.5 - 30**

Recommended Electives: TA 113, 184; DNCE/MUS/TA 173

Theatre Arts-Emphasis in Acting

Provide actors with a foundation for lifelong development of acting experiences. Includes an introduction to the major 20th century approaches to actor training and basic concepts of character and script analysis.

A.A. DEGREE MAJOR*

Program Requirements		
TA 100	Introduction to the Theatre	3
ENTT/TA 105	Introduction to Technical Theatre	3
TA 115	Beginning Acting I: Fundamentals	3
TA 116	Beginning Acting II: Scene Study	3
TA 131C	Playwriting for Actors Lab	1
TA 197D	Stage Crew Workshop	3
TA 216	Intermediate Acting II: Character Development	3
TA 217	Intensive Actor Training	3
ENG 205	Introduction to Literature	3
Group I (Select one course)		
TA 140	History of the Theatre From Ancient Greece Through the 17th Century	3
TA 141	History of the Theatre From the 18th Century to the Present	3
Group II (Select two courses)		
DNCE 100	Survey of Dance	3
DNCE 101	Survey of World Dance	3
DNCE 110	Modern Dance I	1.5
DNCE 115	Ballet I	1.5
DNCE 120	Jazz Technique I	1.5
DNCE 125	Theatre Dance I	1.5
DNCE 130	Tap Dance I	1.5
TA 113	Improvisation for Acting and Interactive Theatre	3
TA 131B	Ensemble Theatre Lab	1
TA 131C	Playwriting for Actors Lab	1
TA 131D	Acting Audition Lab	1
TA 155	Beginning Playwriting	3
TA 160	Beginning Stage Direction	3
TA/DNCE/		
MUS 173	Musical Theatre Scenes	1
TA 184	Creative Theatre Ensemble	3
TA 197C	Rehearsal and Performance	0.5 - 3
Group III (Select one course)		
TA 106	Elementary Stage Costume	3
ENTT/TA 107	Special Effects of Light and Sound	3
ENTT/TA 108	Stagecraft/Scene Design	3
TA 109	Elementary Stage Make-Up	3
TA/ENTT 112	Entertainment Audio Production	3
Total units		**34 - 36.5**

*Theatre Arts Emphasis in Acting A.A. Degree Major pending approval by the California Community Colleges Chancellor's Office at time of catalog publication.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Theatre -Technical

Provides training in basic technical theatre skills for career employment in technical production areas of drama, music, and telecommunications. Also provides training for employment in children's theatre, junior theatre, and community theatre.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
TA 100	Introduction to the Theatre	3
TA/ENTT 105	Introduction to Technical Theatre	3
TA 106	Elementary Stage Costume	3
TA/ENTT 107	Lighting for Stage and Television	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and TV	3
TA 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	.5
TA /ENTT 112	Entertainment Audio Production	3
TA 115 or	Beginning Acting I: Fundamentals	
TA 116	Beginning Acting II: Scene Study	3
TA 197D*	Stage Crew Workshop	2-6
TA 197E	Management of Theatre Activities	.5-3
Plus one of the following courses:		
TA 140	History/Theatre thru 17th Century	3
TA 141	History/Theatre/18th Century to the Present	3
TA 170	Computer Aided Drafting for Theatre	3
TA 297	Experimental Topics in Theatre	1-3
TOTAL UNITS		**28 - 36.5**

Recommended Electives: CFT 100; ARCH 105; TA 197C

*TA 197D must be taken two times for a minimum of 2 units.

COURSE OFFERINGS

TA 100 Introduction to the Theatre (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of theory and practice in the contemporary theatre including its literary, critical and technical aspects, and their relationships to historical backgrounds.

TA 105 Introduction to Technical Theatre (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as ENTT 105*
Transfer acceptability: *CSU; UC*
A general survey of technical theatre including stagecraft, lighting, sound design, costuming, make up, production organization, business management, and promotion. Course will include practical skills in all areas.

TA 106 Elementary Stage Costume (3)
2 hours lecture - 4 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105*
Transfer acceptability: *CSU; UC*
Basic theories, techniques, and procedures of costume production for stage, film, and television. Practical training in college productions.

TA 107 Lighting for Stage and Television (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105*
Note: *Cross listed as ENTT 107*
Transfer acceptability: *CSU; UC*
Techniques, theories, and procedures necessary to develop lighting and lighting effects integrated into film, television, and theatre productions. Practical experience in college productions.

TA 108 Stagecraft and Scene Design for Theatre and Television (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105*
Note: *Cross listed as ENTT 108*
Transfer acceptability: *CSU; UC*
Technical practices and organization of production for theatre, film, and television. Practice in drafting, designing, and construction of scenery for college productions.

TA 109 Elementary Stage Make-Up (3)
2 hours lecture-4 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105*
Transfer acceptability: *CSU; UC*
Basic theories, techniques, and procedures of make-up production for stage, film, and television. Practical training in college productions.

TA 111 Technical Theatre Production (.5)
1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105; completion of, or concurrent enrollment in TA 106 or TA/ENTT 107 or TA/ENTT 108, or TA 109*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Techniques and procedures of planning and coordination through all phases of the technical theatre production process. Practical training through college production.

TA 112 Entertainment Audio Production (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as ENTT 112*
Transfer acceptability: *CSU*
Audio applications and technology for entertainment based uses. To understand set up, operation, troubleshooting techniques with audio signal chain.

TA 113 Improvisation for Acting and Interactive Theatre (3)
3 hours lecture
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Improvisational theatre techniques for basic acting skills and specific forms that engage the audience in an interactive performance setting. Performance material will reflect and analyze situations of conflict found in the participants' lives and communities.

TA 115 Beginning Acting I: Fundamentals (3)
3 hours lecture
Note: *May be taken 4 times; maximum of 4 completions in any combination of TA 115, TA 116*
Transfer acceptability: *CSU; UC*
In a workshop environment, the student will learn the basic tools and terminology of acting. The student will apply this knowledge and experience to the performance of short scenes.

TA 116 Beginning Acting II: Scene Study (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in TA 115*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Designed to improve the actor's skills for performing scenes and monologues with truth and power. Actors will improve their ability to pursue the character's needs and objectives, to be vulnerable to their partners' words and actions and to create with a range of emotion. Actors in this class will continue to develop their vocal and physical technique.

TA 119 Voice and Speech (3)
3 hours lecture
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
A practical and experiential class introducing students to exercises and theories of voice and speech production leading to improved power, expressiveness and clarity. Methodology will include major contemporary approaches to developing the actor's voice.

TA 123 Arts Across the Curriculum (3)
3 hours lecture
Note: *Cross listed as: ART 123/DNCE 123/MUS 123*
Transfer acceptability: *CSU*
This course is an introduction to the artistic creative process through a comparative study of dance, music, theatre, and visual arts, within a social and cultural context. The principles of artistic perception, creative expression, cultural and historical context, and aesthetic valuing will be discussed.

TA 125 Beginning Oral Interpretation (3)
3 hours lecture
Note: *Cross listed as SPCH 125*
Transfer acceptability: *CSU; UC*
An introduction to the oral reading of prose, poetry and drama in distinct and intertextual formats. Models of critical analysis will be applied to written literature and reading will be performed and evaluated by applying principles of effective delivery.

TA 131 Elementary Stage Costume and Make Up (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as FASH 131*
Transfer acceptability: *CSU*
Basic theories, techniques, and procedures of costume production and make-up application for stage, film, and television. Practical training in college productions.

TA 131B Ensemble Theatre Lab (1)
3 hours laboratory
Transfer acceptability: *CSU*
Practical lab applications of techniques for building strong theatre ensembles.

TA 131C Playwriting for Actors Lab (1)
3 hours laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
A practical theatre lab in developing the unique and individual qualities of the theatre artists spoken and/or written voice.

TA 131D Acting Audition Lab (1)
3 hours laboratory
Note: *May be taken 3 times*
Transfer acceptability: *CSU*
Actors learn the important skills of developing materials and strategies for effective auditioning, cold reading methods, preparing for headshots, crafting a resume, and professionalism.

TA 140 History of the Theatre From Ancient Greece Through the 17th Century (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the influence of different cultures, traditions, and technologies on the development of the theatre as a social institution from Ancient Greece through the 17th Century.

TA 141 History of the Theatre From the 18th Century to the Present (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the influence of different cultures, traditions, and technologies on the development of the theatre as a social institution from the 18th Century to the present.

TA 150 Dramatic Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Investigation of dramatic literature from classical to the contemporary, including examples of: classical, medieval, renaissance, restoration, neo-classical, romantic, realistic, modern, postmodern, contemporary and non-western plays.

TA 155 Beginning Playwriting (3)
3 hours lecture
Transfer acceptability: *CSU*
Study and analysis of form, style, and structure in dramatic literature. Students will write at least two one act plays for critical analysis. Selected student work will be given studio production.

TA 157 Theatre and Social Justice (3)
3 hours lecture
Note: *Cross listed as MCS 157; may be taken 3 times*
Transfer acceptability: *CSU*
The study and practice of theatre as a vehicle for understanding global conditions of social injustice and working to create justice in local communities.

TA 160 Beginning Stage Direction (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Training in the principles, procedures, and methods of stage direction. Students will serve as assistant directors on college productions and will also direct scenes for acting classes and studio productions.

TA 170 Computer Aided Drafting for Theatre (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 108*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Basic introduction to computer aided drafting using AutoCAD software and IBM compatible or Macintosh computers. Hands on experience with AutoCAD to include basic mechanical drafting terminology and techniques. An introduction to user specific third party software as related to drafting and designing of scenery for college productions.

TA 173 Musical Theatre Scenes (1)
3 hours laboratory
Note: *Cross listed as DNCE 173/MUS 173*
Transfer acceptability: *CSU*
Rehearsal and performance of solo and group scenes from Broadway musicals dating from the 1930's to the present.

TA 182 Introduction to Arts Management (3)
9 hours laboratory
Note: *Cross listed as AMS 182/ART 182/DNCE 182/MUS 182*
Transfer acceptability: *CSU*
An introduction to the principles and practices of arts management through an interdisciplinary study of management topics in the visual and performing arts.

TA 183 Internship in Arts Management (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in AMS/ART/DANCE/MUS or TA 182*
Note: *Cross listed as AMS 183/ART 183/DNCE 183/MUS 183*
Transfer acceptability: *CSU*
Practical experience in arts management in the visual and performing arts.

TA 184 Creative Theatre Ensemble (3)
3 hours lecture
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Students (actors, designers, directors, musicians, visual artists, etc.) will work together as an ensemble to create theater performances that rely on discipline, skill, imagination, and artistic courage.

TA 197A Summer Theatre Workshop (3)
6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
A lecture/laboratory course designed to give students guidance and direction in a variety of practical experiences in the theatre (including acting, lighting, scenery, costumes, and stage management) through productions of major works for public audiences.

TA 197C Rehearsal and Performance (.5-3)
1½ to 9 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Participation in college dramatic and musical productions as a member of the stage crew or house staff. At least one unit of this course is required of all theatre arts majors.

TA 197D Stage Crew Workshop (.5-3)
1½ to 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 105 or TA III, or concurrent enrollment in TA/ENTT105 or TA III*
Note: *At least one unit of this course is required of all theatre arts majors; may be taken 4 times*
Transfer acceptability: *CSU; UC*
Participation in college dramatic and musical productions as a member of the stage crew or house staff.

TA 197E Management of Theatre Activities (.5-3)
1½ to 9 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
The principles of organization, operation, and planning for theatre management including programming, ticket sales, box office records, and promotional news release writing. Practical use applied to theatre productions.

TA 197F Theatre Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC –Credit determined by UC upon review of course syllabus*
Topics in theatre. See Class Schedule for specific topic offered. Course title will designate subject covered.

TA 217 Intensive Actor Training (3)
3 hours lecture
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC (Pending)*
The application of rigorous actor training techniques to develop the actor's ability to create compelling performances. The coursework will integrate physical, vocal and imagination training with psychological work, text analysis and ensemble training.

TA 297 Experimental Topics in Theatre (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Previous theatre experience*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus*
Designed for students with particular interest in advanced projects, including individual research. Tutoring and performance for college classes and community.

University Studies

Contact the Counseling Center for further information.
(760) 744-1150, ext. 2179
Office: SSC-18A

Associate in Arts Degrees -
- University Studies - Emphasis in Business
- University Studies - Emphasis in Culture and Society
- University Studies - Emphasis in Education
- University Studies - Emphasis in Fine and Performing Arts
- University Studies - Emphasis in Health and Fitness
- University Studies - Emphasis in Humanities
- University Studies - Emphasis in Mathematics and Science
- University Studies - Emphasis in Media and Communication
- University Studies - Emphasis in Social Sciences
- University Studies - Emphasis in World Languages

Certificates of Achievement -
- California State University General Education Breadth
- Intersegmental General Education Transfer Curriculum

PROGRAMS OF STUDY

California State University General Education Breadth

Students who complete the California State University General Education (CSUGE) transfer pattern, commonly referred to at Palomar as the "blue sheet," may be awarded a Certificate of Achievement. Completion of the CSUGE pattern satisfies the lower-division general education requirements for the CSU system..

Although this certificate recognizes completion of the lower-division general education requirements, it does not guarantee admission into the CSU system.

CERTIFICATE OF ACHIEVEMENT

For a list of the approved courses for this program, please refer to the "California State University General Education (CSUGE) Requirements" listed in Section 6 (green pages) of the Catalog. Contact the Counseling Services Department with questions or for additional information.

Program Requirements	Units
Area A: English Language Communication and Critical Thinking	9
Area B: Scientific Inquiry and Quantitative Reasoning	9
Area C: Arts and Humanities	9
Area D: Social Sciences	9
Area E: Lifelong Learning and Self-Development	3
MINIMUM UNITS	**39**

Intersegmental General Education Transfer Curriculum

Students who complete the Intersegmental General Education Transfer Curriculum (IGETC) transfer pattern, commonly referred to at Palomar as the "green sheet," may be awarded a Certificate of Achievement. Completion of the IGETC pattern satisfies the lower-division general education requirements for the UC and/or CSU system.

Although this certificate recognizes completion of the lower-division general education requirements, it does not guarantee admission into the UC or CSU system.

CERTIFICATE OF ACHIEVEMENT

For a list of the approved courses for this program, please refer to the "Intersegmental General Education Transfer Curriculum Requirements" listed in Section 6 (green pages) of the Catalog. Contact the Counseling Services Department with questions or for additional information.

Program Requirements	Units
Area 1: English Communication	6 - 9
Area 2: Mathematical Concepts and Quantitative Reasoning	3
Area 3: Arts and Humanities	9
Area 4: Social and Behavioral Sciences	9
Area 5: Physical and Biological Sciences	7 - 9
Area 6: Language Other Than English - UC Only	0 - 3
MINIMUM UNITS	**37**

University Studies

This program is designed for students who wish a broad knowledge of liberal arts and sciences, plus additional course work in an "Area of Emphasis." This program would be an ideal choice for students planning on transferring to the California State University (CSU) or University of California (UC), as the student may satisfy

their general education requirements plus focus on transferable course work relating to baccalaureate majors at these institutions.

Because admission and major preparation requirements vary at each transfer institution, courses used to fulfill requirements for an emphasis should be selected with the assistance of a Palomar College counselor.

Disclaimer: California Community College courses listed on ASSIST are pre-approved to meet the lower-division major prep requirements. Any other courses used by Palomar College to meet an emphasis are subject to approval by your transfer institution.

A.A. DEGREE MAJOR

Program Requirements	**Units**
Courses may be double-counted between the GE course work and the Area of Emphasis	
California State University General Education (CSUGE) pattern	39
or	
Intersegmental General Education Transfer Curriculum (IGETC)	34
Area of Emphasis	18
District Requirements	
American History and Institutions	6
Health	4
Multicultural	3
TOTAL UNITS	**65 - 70**

Select An Area of Emphasis:

Emphasis in Business

This emphasis focuses on an analysis of the organization and operation of business enterprises. It will allow students to respond to a variety of business-related challenges, and stresses problem-solving skills involved in making managerial, financial, and technical decisions based on available data, tools, and resources.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Accountancy, Business Administration, Business Economics, Finance, Hospitality Management, Information Systems, International Business, Management, Management Science, Mathematical Economics and Economic Theory, Public Administration, and Recreation Administration.

Select 18 units minimum
Must complete course work from at least two disciplines.
Accounting 103, 104, 108
Business 100, 115, 116, 117, 125, 205
CSIS-Computer Science 110, 146, 212
CSIS-Information Technology 105, 120, 121
Economics 101, 102, 110, 115
Mathematics 110, 120, 130, 135, 140, 141, 146, 200, 205, 206
Philosophy 100, 120
Political Science 102, 130
Psychology 100, 115, 205, 230
ROP-Computer Science and Information Systems 120
Sociology 100, 205

Emphasis in Culture and Society

This emphasis focuses on an exploration and understanding of the central issues in society today: race, ethnicity, class, gender, sexuality, nationality, and religion. It will allow students to experience and explore the diverse groups that make up America and the world.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as African-American Studies, American Indian Studies, American Studies, Chicana/Chicano Studies, Ethnic Studies, Gender Studies, Jewish Studies, Latin American Studies, Multicultural Studies, and Women's Studies.

Select 18 units minimum
Must complete course work from at least two disciplines.
Africana Studies 100, 101, 102, 110, 120, 125, 126
American Indian Studies 100, 101, 102, 105, 115, 120, 125, 130, 135, 140, 145, 150, 165
American Studies 100, 105, 110, 200
Anthropology 126, 130, 140
Chicano Studies 100, 101, 102, 105, 120, 125
Chinese 130
English 280
Judaic Studies 106, 107
Multicultural Studies 100, 110, 120, 122, 124, 157, 165, 200
Psychology 125
Religious Studies 101, 106, 107, 124
Sociology 115, 125, 200
Speech 131
Theatre Arts 157

Emphasis in Education

This emphasis focuses on the integration of concepts from the arts, humanities, literature, natural sciences, and social sciences, offering a broad foundation in diverse disciplines. It will allow students to develop skills in quantitative reasoning, critical thinking, and communication in the English language, both orally and in writing.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Liberal Studies and Elementary Subject Matter Preparation.

Required course
Education 200

Select 15 units minimum
Must complete course work from at least two disciplines.
Art 123
Child Development 100
Dance 123
Earth Sciences 100
English 100, 202, 203, 205, 220, 221, 225, 226
Geography 103, 105
Music 123
Philosophy 102, 115, 120
Physical Education 102
Physical Science 101, 101L
Speech 100, 105
Theatre Arts123

Emphasis in Fine and Performing Arts

This emphasis focuses on the contributions the arts have made, and continue to make, in establishing our cultural and historical traditions. It will allow students to concentrate on theoretical study and an appreciation of the arts from a critical and principally non-performing point-of-view, or to focus on the expression of, or performance in, one or more artistic mediums.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Dance, Fashion Design, Graphic Design, Interior Design, Music, Studio Arts, and Theatre Arts.

Select 18 units minimum
Must complete course work from at least two disciplines
Architecture 215, 216
Art 100, 102, 103, 104, 105, 120, 121, 123, 145, 146, 165, 166, 167, 168, 225, 226, 260
Art-Design 200
Business 145
Cinema 102, 103, 120
Dance 100, 101, 105, 110, 111, 115, 117, 118, 121, 123, 130, 131, 132, 140, 141, 149, 205, 206, 210 , 211, 217, 218
Entertainment Technology 105, 107, 108
Fashion 100, 105, 110, 120, 125, 130, 135, 136, 139, 145
Graphic Communications 100
Graphic Communications-Imaging & Publishing 140

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

History 105, 106
Interior Design 100, 115, 125, 130, 150
Music 100, 101, 103, 105, 106, 110, 111, 115, 116, 117, 123, 171, 210, 215, 216, 220, 222
Photography 100, 125
ROP-Graphic Communications-Imaging & Publishing 140
Theatre Arts 100, 105, 107, 108, 109, 113, 115, 116, 117, 123, 140, 141, 150

Emphasis in Health and Fitness

This emphasis focuses on behaviors that protect and promote health at home, at school, and in the community. It presents the theory and science, both biological and physical, behind healthy growth and development throughout the life cycle.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Kinesiology, Nursing, Nutrition, and Physical Education.

Required courses (8 units minimum)
Zoology 200
Zoology 203

Select 10 units minimum
Biology 100, 101, 101L, 185, 200, 201
Chemistry 100, 104, 105, 110, 110L, 115, 115L
Emergency Medical Education 100
Family and Consumer Sciences 165, 185
Health 100, 100L, 165
Mathematics 120, 135
Microbiology 200
Physical Education 104
Physics 120, 200
Psychology 100, 205, 210
Sociology 100, 205
Zoology 145, 145L

Emphasis in Humanities

This emphasis focuses on the methods and values of humanistic study. It will allow students to investigate the role philosophy, literature, religion, history, communication, and the arts play in the shaping of human cultures.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Comparative Literature, Humanities, Philosophy, Religious Studies, and World Literature..

Select 18 units minimum
Must complete course work from at least two disciplines
Africana Studies 115, 116
Chicano Studies 105
English 100, 135, 136, 202, 203, 205, 210, 211, 215, 220, 221, 225, 226, 230, 240, 245, 250
History 105, 106
Humanities 100, 101
Judaic Studies 106
Philosophy 100, 101, 102, 103, 105, 110, 115, 120, 135, 136
Religious Studies 101, 105, 106, 110
Speech 100, 105, 115, 120, 125, 131
Theatre Arts 125

Emphasis in Mathematics and Science

This emphasis focuses on training in the scientific method, the fundamental principles of natural science, and the principle laws and theories governing the physical and life sciences. It will also allow students to focus on the mathematical concepts, analytical thinking, and quantitative skills necessary for many other disciplines.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Applied Mathematics, Architecture, Astronomy, Aviation, Biochemistry, Biology, Biotechnology, Botany, Chemistry, Computer Science, Earth Science, Environmental Resource Management, Environmental Science, Geography, Geology, Geosciences, Marine Biology, Mathematics, Microbiology, Oceanography, Pre-Engineering, and Statistics.

Select 18 units minimum
Must complete at least one course in Mathematics and one in Science
Astronomy 100, 105L, 120
Aviation Sciences 205
Biology 100, 101, 101L, 102, 105, 106, 106L, 114, 114L, 118, 118L, 130, 131, 131L, 135, 185, 200, 201, 215
Botany 100, 101, 101L
Chemistry 110, 110L, 115, 115L, 205, 210, 220, 221
CSIS-Computer Science 110, 146, 210, 212, 220, 222
CSIS-Web Technology 170
Earth Sciences 100, 115
Engineering 210, 210L, 231, 235, 236, 245
Family and Consumer Sciences 185
Geography 100, 100L, 103, 105, 110, 115, 120, 125
Geology 100, 100L, 110, 120, 125, 150, 150L
Mathematics 100, 110, 115, 120, 130, 135, 140, 141, 146, 200, 205, 206, 245
Microbiology 200
Oceanography 100, 100L, 101
Physical Science 100, 100L, 101, 101L
Physics 120, 121, 200, 201, 230, 231, 232
Psychology 205, 205L, 210
Sociology 205, 205L
Zoology 100, 101, 101L, 135, 145, 145L, 200, 203

Emphasis in Media and Communication

This emphasis focuses on various media and on how messages are produced, used, and interpreted. In addition, it will allow students to develop and apply skills in speaking, listening, and understanding verbal and non-verbal meanings.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Cinema, Communications, Journalism, Mass Media, Radio and Television, Speech, and Telecommunications and Film.

Select 18 units minimum
Must complete course work from at least two disciplines
Cinema 100, 102, 103, 225
Communications 100
English 100, 150, 202, 203, 215
Journalism 101, 105, 140
Photography 100, 105, 140
Radio and Television 100, 110, 220, 225
Speech 100, 105, 115, 120, 125, 131
Theatre Arts 100, 125

Emphasis in Social Sciences

This emphasis focuses on the nature of individual and collective human behavior. It will allow students to explore the political, economic, social, and psychological structures and institutions of human beings.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Administration of Justice, Anthropology, Child Development, Criminology, Gerontology, Government, History, Human Development, Political Science, Psychology, and Sociology.

Select 18 units minimum
Must complete course work from at least two disciplines
Administration of Justice 100, 102, 103, 104, 110
Africana Studies 101, 102, 126
American Indian Studies 101, 102, 130, 140
American Studies 200
Anthropology 100, 100L, 105, 107, 110, 115, 125, 126, 130, 137, 140, 225
Biology 100, 101, 101L, 215
Chicano Studies 101, 102
Child Development 100, 103, 104, 105, 115
Chinese 130
Communications 100, 105
CSIS–Information Technology 105
English 150
Family and Consumer Sciences 105, 165
Geography 103, 105

Health 165
History 101, 102, 105, 106, 107, 108, 121, 130, 140, 141, 150, 151, 152
Judaic Studies 107
Mathematics 120
Multicultural Studies 200
Political Science 100, 101, 102, 110
Psychology 100, 105, 110, 120, 130, 145, 205, 205L, 225, 230, 235
Religious Studies 102, 107
Sociology 100, 105, 110, 120, 130, 145, 200, 205, 205L

Emphasis in World Languages

This emphasis focuses on exploring the connection of language to daily life and cultural context. It will provide a background in English language, as well as promote listening, writing, speaking, and reading comprehension skills in one or more foreign languages.

Students may use this emphasis to focus on transfer courses required for such baccalaureate majors as Linguistics, specific foreign language majors, and any other major requiring proficiency in one or more foreign languages.

Select 6 units minimum
English 100, 202, 203
Philosophy 115
Speech 100, 131

Select 12 units minimum
American Sign Language 100, 100L, 101, 101L, 110, 205, 205L, 206, 206L
Anthropology 107
Arabic 101A, 101B, 102A, 102B, 201A, 201B
Chinese 101, 101A, 101B, 102, 102A, 102B, 130, 201, 201A, 201B
English 150
French 101, 101A, 101B, 102, 102A, 102B, 201, 202
German 101, 102, 201, 202
Italian 101, 102, 201, 201A, 201B
Japanese 101, 102, 201, 202
Spanish 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B, 202

Upholstery (UP)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: ST-49

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Upholstery

PROGRAM OF STUDY

Upholstery

Prepares students for variety of positions in upholstery and related industries. Students will master skills and techniques required for furniture upholstery and accessories, antique restoration, custom draperies and window treatments.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

CERTIFICATE OF PROFICIENCY

Program Requirements			Units
UP 85		Basic Upholstery	3
UP 86		Advanced Upholstery	3
UP 88		Antique Furniture Restoration	3
UP 90		Automotive Upholstery	3
UP 95	or	Window Treatments	
UP 96		Decorator Accessories	1.5
UP 97		Upholstery Topics	1
ID 135		Fabrics for Designers	3
TOTAL UNITS			**17.5**

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

Courses numbered under 100 are not intended for transfer credit.

UP 85 Basic Upholstery (3)
1 hour lecture- 6 hours laboratory
Note: *May be taken 4 times*
Upholstering or replacing existing upholstery for various types of furniture. Commercial sewing machines, cushion stuffer, pneumatic tools, and hand tools will be used to complete individual projects.

UP 86 Advanced Upholstery (3)
1 hour lecture- 6 hours laboratory
Recommended preparation: *UP 85*
Note: *May be taken 2 times*
Advanced upholstery principles and techniques. Power sewing equipment, pneumatic tools, and specialized hand tools will be used to complete complex upholstery projects. Includes estimating, customer relations, tax laws, and other fundamentals of upholstery business operation.

UP 88 Antique Furniture Restoration (3)
1½ hours lecture- 4½ hours laboratory
Recommended Preparation: *UP 85*
Note: *May be taken 2 times*
Covers basic antique furniture restoration techniques, specialized tools, authentic materials, and standard terminology. Students will learn to identify style, approximate age, original fabrics, and types of exterior woods. Essential business concepts and practices will also be addressed.

UP 90 Automotive Upholstery (3)
1 hour lecture- 6 hours laboratory
Note: *May be taken 2 times*
Skills and techniques required to replace, repair or customize automotive and related upholstery. Fabrication of interiors and accessories for automobile interiors, watercraft and other recreational vehicles. Techniques and considerations related to auto alarm or sound system installation. Students will complete individual or group projects.

UP 95 Window Treatments (1.5)
1 hour lecture- 1½ hours laboratory
Note: *May be taken 2 times*
Design and fabrication of various window treatments. Includes industry standards, design and fabric options, measuring and estimating, and related business concepts. Students will complete sample projects.

UP 96 Decorator Accessories (1.5)
1 hour lecture- 1½ hours laboratory
Note: *May be taken 2 times*
Skills and techniques necessary for creation of a variety of decorator accessories: upholstered headboards; designer cushions; custom pillows; lampshades; duvet covers, bedspreads and dust ruffles; table runners and covers; and simple slipcovers. Includes design and fabric/materials selection, industry standards, cost estimating/pricing and other business considerations. Students will complete individual projects.

UP 97 Upholstery Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 3 times*
Topics in upholstery. See Class Schedule for specific topic offered. Course title will designate subject covered.

Wastewater Technology Education (WWT)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Wastewater Technology Education

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Wastewater Technology Education

PROGRAM OF STUDY

Wastewater Technology Education

Specifically designed for individuals employed by or seeking employment in water districts in San Diego County.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
WWT 100	Treatment Plant Operations	3
WWT/WTE 110	Waterworks Mathematics	3
WWT/WTE 120	Instrumentation and Controls	3
WWT/WTE/ PWM 125	Supervision	3
WWT 150	Collection Systems Operator	3
WWT 155	Treatment Process Control	3
WWT/WTE 215	Motors/Pumps/Oper/Maintenance	3
Electives (Select 6 units)		
WWT/WTE 135	Backflow Prevention	3
WWT/WTE 138	Cross Connection Specialist	3
WWT 197	Wastewater Tech Education Topics	.5-4
WWT/WTE 225	San Diego Regional Internship	4-8
CE 100*	Cooperative Education	3-4
TOTAL UNITS		**27**

*Cooperative Education must be related to this major.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

WWT 100 Treatment Plant Operations (3)
3 hours lecture
Note: *May be taken 4 times*
An introductory wastewater treatment plant operations course. Topics covered include: the various origins and characteristics of wastewater; an overview of wastewater collections systems; preliminary treatment; primary treatment; fixed film secondary biological treatment processes; treatment ponds and disinfection. Emphasis is given to the role of the operator and preparation for solving practical problems and problems typical of those found in Operator Certification examinations.

WWT 110 Waterworks Mathematics (3)
3 hours lecture
Note: *Cross listed as WTE 110; may be taken 4 times*
Provides instruction in entry-level to intermediate-level mathematical calculations used in the operation and evaluation of conventional water/wastewater treatment processes and water distribution systems. The course content has been developed to meet requirements for entry to water/wastewater education program courses. Course will cover basic geometry, metric conversions, flows, pressure, and chemical dosage as it relates to the water/wastewater industry. Material will parallel some of the problems found on State Certification examinations.

WWT 120 Instrumentation and Controls (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 110*
Note: *Cross listed as WTE 120; may be taken 4 times*
Introduction to basic electrical theory. Applications and uses of water and wastewater control systems including switches, relays, alarms, motors, instrumentation and telemetering.

WWT 125 Supervision (3)
3 hours lecture
Note: *Cross listed as WTE 125/PWM 125*
Managerial aspects of public utilities including organization, decision making, coordination, communication, and public relations. Personnel management including recruiting, training, evaluation, discipline, promotion, morale, and grievances. Safety programs and encouraging safe conditions, actions and attitudes.

WWT 135 Backflow Prevention (3)
2½ hours lecture-1½ hours laboratory
Note: *Cross listed as WTE 135; may be taken 4 times*
Concentrated training in recognition and abatement of cross connections in water supply and plumbing systems. Hands on backflow prevention device testing procedures for certification.

WWT 138 Cross Connection Specialist (3)
3 hours lecture
Recommended preparation: *WTE/WWT 135*
Note: *Cross listed as WTE 138*
The study of the various levels of administrative and technical procedures necessary to operate a cross connection control program. Students will obtain the knowledge to become certified as a "Cross Connection Control Specialist" under the provisions set forth by American Water Works Association.

WWT 150 Collection Systems Operator (3)
3 hours lecture
Note: *May be taken 4 times*
Wastewater collection systems and collection system equipment, pipeline cleaning and maintenance, system design, safety procedures, inspecting and testing procedures used in collections systems.

WWT 155 Treatment Process Control (3)
3 hours lecture
Recommended preparation: *WWT/WTE 110*
A wastewater treatment and disposal course with an emphasis on control of these processes. Topics covered include: the activated sludge secondary treatment process and its variations; sludge digestion, treatment and disposal; safety and housekeeping; maintenance and an overview of effluent disposal, tertiary treatment and reclamation. Emphasis is also given to the role of the operator and provides preparation for solving process control calculations and problems typical of those found in Operator Certification examinations.

WWT 197 Wastewater Technology Education Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Wastewater Technology Education. See Class Schedule for specific topic offered. Course title will designate subject covered.

WWT 215 Motors and Pumps, Operation and Maintenance (3)
3 hours lecture
Recommended preparation: *WTE/WWT 110*
Note: *Cross listed as WTE 215; may be taken 4 times*
Identification of problems encountered, causes of problems, corrective solutions, and repairs in the operation of pumps and motors. Implementation of maintenance programs including scheduling and recordkeeping.

WWT 225 San Diego Regional Internship (4)
12 hours laboratory
Note: *Cross listed as WTE 225; Pass/No Pass grading only; may be taken 2 times*
This class will provide students with the opportunity to gain work experience in

San Diego County water and wastewater agencies through a formal internship. The one-year internship will provide experience in four primary areas: system operations, system maintenance, wastewater treatment and water treatment. Students must apply to the program and be accepted by a regional interview committee comprised of representatives from San Diego County water and wastewater agencies, Cuyamaca and Palomar Colleges and the San Diego County Water Authority.

Water Technology Education (WTE)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Water Technology Education

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Water Technology Education

PROGRAM OF STUDY

Water Technology Education

Specifically designed for individuals employed by or seeking employment in water districts in San Diego County.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
WTE 100	Waterworks Distribution	3
WTE 105	Water Treatment Plant Operation I	3
WTE/WWT 110	Waterworks Mathematics	3
WTE/WWT 120	Instrumentation and Controls	3
WTE/WWT/ PWM 125	Supervision	3
WTE 150	Water Quality Monitoring	3
WTE/WWT 215	Motors/Pumps/Oper/Maintenance	3
Electives (Select 9 units)		
WTE/WWT 135	Backflow Prevention	3
WTE/WWT 138	Cross Connection Specialist	3
WTE 197	Water Technology Education Topics	.5-4
WTE 205	Waterworks Distribution II	3
WTE 210	Water Treatment Plant Operation II	3
WTE/WWT 225	San Diego Regional Internship	4-8
CE 100*	Cooperative Education	3,4
TOTAL UNITS		**30**

* Cooperative Education must be related to this major.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

WTE 100 Waterworks Distribution (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 110*
Note: *May be taken 4 times*
Water utility system operations and maintenance. An introduction to the principles of pressure pipe systems and the hydraulics involved in their operation. Design, installation, operation, and maintenance of basic elements of water systems including pipes, pumps, valves, meters, and related hydraulic units. Operations and maintenance safety considerations emphasized. This course prepares students for the State of California - Water Distribution Operator Grade I, Grade II. and Grade III exams.

WTE 105 Water Treatment Plant Operation I (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 110*
Note: *May be taken 4 times*
Provides an introduction to water treatment plant operations in accordance with the Safe Drinking Water Act (SDWA). Special emphasis is given to implementation of the Surface Water Treatment Rule through USEPA approved filtration technology. Subject matter includes major provisions of the SDWA and its amenements; basic water chemistry; source water assessment; conventional treatment processes; treated water stability; waterborne diseases; public health protection; and an introduction to math skills equivalent to those required of State of California Grade II water treatment plant operators. This class is helpful to those preparing for the Grade I and Grade II state examination.

WTE 110 Waterworks Mathematics (3)
3 hours lecture
Note: *Cross listed as WWT 110; may be taken 4 times*
Provides instruction in entry-level to intermediate-level mathematical calculations used in the operation and evaluation of conventional water/wastewater treatment processes and water distribution systems. The course content has been developed to meet requirements for entry to water/wastewater education program courses. Course will cover basic geometry, metric conversions, flows, pressure, and chemical dosage as it relates to the water/wastewater industry. Material will parallel some of the problems found on State Certification examinations.

WTE 120 Instrumentation and Controls (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 110*
Note: *Cross listed as WWT 120; may be taken 4 times*
Introduction to basic electrical theory. Applications and uses of water and wastewater control systems including switches, relays, alarms, motors, instrumentation and telemetering.

WTE 125 Supervision (3)
3 hours lecture
Note: *Cross listed as WWT 125/PWM 125*
Managerial aspects of public utilities including organization, decision making, coordination, communication, and public relations. Personnel management including recruiting, training, evaluation, discipline, promotion, morale, and grievances. Safety programs and encouraging safe conditions, actions and attitudes.

WTE 135 Backflow Prevention (3)
2½ hours lecture-1½ hours laboratory
Note: *Cross listed as WWT 135; may be taken 4 times*
Concentrated training in recognition and abatement of cross connections in water supply and plumbing systems. Hands on backflow prevention device testing procedures for certification.

WTE 138 Cross Connection Specialist (3)
3 hours lecture
Recommended preparation: *WTE/WWT 135*
Note: *Cross listed as WWT 138*
The study of the various levels of administrative and technical procedures necessary to operate a cross connection control program. Students will obtain the knowledge to become certified as a "Cross Connection Control Specialist" under the provisions set forth by American Water Works Association.

WTE 150 Water Quality Monitoring (3)
2½ hours lecture-1½ hours laboratory
Recommended preparation: *WTE /WWT 110*
Prepares students to properly monitor public drinking water quality through study of: Federal and State regulations, laboratory analyses, types of contaminants, sample collection techniques and interpretation of monitoring data.

WTE 197 Water Technology Education Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Topics in Water Technology Education. See Class Schedule for specific topic offered. Course title will designate subject covered.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

WTE 205 Waterworks Distribution II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE 100*
Intermediate and advanced instruction in the field of water production, types of reservoirs, water lines, pumps, valves, and related appurtenances. Studies design, proper operation, and facilities repair of a public water system. Provides instruction in methods of record keeping and administrative responsibilities related to water systems. This course prepares students for the California Department of Health Services, Water Distribution Operator certification exams at levels D-3, D-4, and D-5 and the "American Water Works Association" certification exams for Grades II, III, and IV.

WTE 210 Water Treatment Plant Operation II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE 105*
Advanced water quality control and treatment with emphasis given to state regulations, EPA regulations, advanced mathematics and chemistry. Particular attention will be given to in depth examination of treatment plant processes and the enforcement of the Surface Water Treatment Rule, Total Coliform Rule, Interim Enhanced Surface Water Treatment Rule, Long Term 1 Enhanced Surface Water Treatment Rule, Long Term 2 Enhanced Surface Water Treatment Rule, and Disinfection/Disinfection by Product Rule. This course will be helpful to those preparing for Grade III and IV examinations.

WTE 215 Motors and Pumps, Operation and Maintenance (3)
3 hours lecture
Recommended preparation: *WTE/WWT 110*
Note: *Cross listed as WWT 215; may be taken 4 times*
Identification of problems encountered, causes of problems, corrective solutions, and repairs in the operation of pumps and motors. Implementation of maintenance programs including scheduling and recordkeeping.

WTE 225 San Diego Regional Internship (4)
12 hours laboratory
Note: *Cross listed as WWT 225; Pass/No Pass grading only; may be taken 2 times*
This class will provide students with the opportunity to gain work experience in San Diego County water and wastewater agencies through a formal internship. The one-year internship will provide experience in four primary areas: system operations, system maintenance, wastewater treatment and water treatment. Students must apply to the program and be accepted by a regional interview committee comprised of representatives from San Diego County water and wastewater agencies, Cuyamaca and Palomar Colleges and the San Diego County Water Authority.

Web

See CSIS - Web Technology

Welding (WELD)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-1

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Welding Technology

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Welding Technology

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Entry-Level Gas Metal Arc/Flux Cored Arc Welding
• Entry-Level Gas Tungsten Arc Welding
• Entry-Level Shielded Metal Arc Welding

PROGRAMS OF STUDY

Entry-Level Gas Metal Arc/ Flux Cored Arc Welding

Provides the skills necessary for entry-level employment as a gas metal arc welder/flux cored arc welder.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
IT/WELD 108	Technical Mathematics	3
WELD 100	Welding I	3
WELD 120	Gas Metal Arc and Flux Cored Arc Welding	3
WELD 135	Print Reading for Welders	3
WELD 160	Metal Layout for Fabrication	3
TOTAL UNITS		**15**

Entry-Level Gas Tungsten Arc Welding

Introdution to GTAW, GMAW, and SMAW welding process with concentration on GTAW. Basic math, print reading, and layout skills and knowllede will be taught to prepare students for entry-level employment as a GTAW welder.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
IT/WELD 108	Technical Mathematics	3
WELD 100	Welding I	3
WELD 115	Gas Tungsten Arc Welding	3
WELD 135	Print Reading for Welders	3
WELD 160	Metal Layout for Fabrication	3
TOTAL UNITS		**15**

Entry-Level Shielded Metal Arc Welding

Provides the skills necessary for entry-level employment as a shielded metal arc welder.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
IT/WELD 108	Technical Mathematics	3
WELD 100	Welding I	3
WELD 110	Shielded Metal Arc Welding	3
WELD 135	Print Reading for Welders	3
WELD 160	Metal Layout for Fabrication	3
TOTAL UNITS		**15**

Welding Technology

Provides training for a career in the field of welding. Following the study of basic welding processes, the student may elect to concentrate in one or more of the basic welding processes and to prepare for the industrial certification test.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
WELD 100	Welding I	3
WELD 110	Shielded Metal Arc Welding	3
WELD 115	Gas Tungsten Arc Welding	3
WELD 120	Gas Metal Arc and Flux Cored Arc Welding	3
WELD 135	Print Reading for Welders	3
WELD 160	Metal Layout for Fabrication	3
IT/WELD 108	Technical Mathematics	3
CE 100	Cooperative Education	1, 2, 3, 4

Electives (Select 3 units)

WELD 105	Metal Cutting, Brazing, Soldering	3
WELD 150	Welding Inspection	3
WELD 197	Welding Technology Topics	3
TOTAL UNITS		**25 - 28**

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

WELD 10L Shielded Metal Arc Welding Laboratory (3)
6 hours lecture/laboratory
Note: *May be taken 4 times*
Non-degree Applicable
Operation of arc welding machines with various electrodes in all positions of welding.

WELD 15L Gas Tungsten Arc Welding Laboratory (3)
6 hours lecture/laboratory
Note: *May be taken 4 times*
Non-degree Applicable
Operation of Gas Tungsten Arc Welding machines on carbon steel, stainless steel, and aluminum.

WELD 20L Semiautomatic Arc Welding Laboratory (3)
6 hours lecture/laboratory
Note: *May be taken 4 times*
Non-degree Applicable
Operation of Gas Metal Arc and Flux Cored Arc Welding machines on carbon steel.

WELD 100 Welding I (3)
2 hours lecture-4 hours laboratory
Note: *May be taken 2 times*
Transfer acceptability: CSU
Introduction to safe practices, setup, and operation of Shielded Metal Arc Welding, Gas Tungsten Arc Welding, Flux Core Arc Welding, and Gas Metal Arc Welding.

WELD 105 Metal Cutting, Brazing, Soldering (3)
2 hours lecture-4 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: CSU
Cutting metals with oxyfuel, plasma, carbon air arc gouging, and mechanical methods. Joining of metals and fixtures using the brazing and soldering process.

WELD 108 Technical Mathematics (3)
3 hours lecture
Note: *Cross listed as IT 108*
Methods and experience in defining and solving mathematical problems in industrial technology. Special emphasis will be given to the application of these basic processes to the solution of the unique mathematical problems encountered in the areas of architecture, automotive, drafting, machine, welding, and woodworking technology.

WELD 110 Shielded Metal Arc Welding (3)
2 hours lecture-4 hours laboratory
Prerequisite: *A minimum grade of 'C' in WELD 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Welding steel plate in all positions using the Shielded Metal Arc Welding process.

WELD 115 Gas Tungsten Arc Welding (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in WELD 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Safe setup, operation, and maintenance of Gas Tungsten Arc Welding equipment. Welding stainless steel, carbon steel, and aluminum in the flat and horizontal positions.

WELD 116 Advanced Gas Tungsten Arc Welding (3)
6 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in WELD 115*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Safe setup, operation and maintenance of Gas Tungsten Arc Welding equipment. Welding stainless steel, carbon steel, aluminum, and other exotic metals in all positions according to building codes, military specifications, and aerospace standards.

WELD 120 Gas Metal Arc and Flux Cored Arc Welding (3)
2 hours lecture-4 hours laboratory
Prerequisite: *A minimum grade of 'C' in WELD 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Gas Metal Arc Welding steel and aluminum sheet metal, and plate with short arc and spray arc technique. Flux Cored Arc Welding steel plate in flat, horizontal, and vertical positions.

WELD 130 CAD/CAM Machining (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT 110 and DT 128*
Note: *Cross listed as as DT 130. May be taken 2 times*
Transfer acceptability: *CSU*
Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

WELD 135 Print Reading for Welders (3)
3 hours lecture
Note: *May be taken 4 times*
Line interpretation, sketching, bill of materials, structural shapes, welding symbols, joint types, weld types, and metric conversions.

WELD 140 Qualification of Welders (3)
2 hours lecture-4 hours laboratory
Prerequisite: *A minimum grade of 'C' in WELD 101*
Note: *May be taken 4 times*
This course is designed to train the students to be familiar with the provisions of the various welding standards and codes. Supervised training is provided so that students will be able to qualify for certification on any code or standard.

WELD 145 Pipe Welding (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in WELD 110*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Provides a thorough technical understanding of pipe welding nomenclature, weld quality, and pipe fit-up and welding procedures. Provides training to develop welding skills necessary to make high quality welds on steel pipe in the 5G, 2G and 6G positions.

WELD 150 Welding Inspection (3)
2 hours lecture-4 hours laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course is designed to improve understanding of the role, duties, and technical requirements of welding inspectors. The course will cover fundamentals of welding, welding symbols, documents used in welding, codes, specification, standards, weld joint geometry, destructive testing methods, nondestructive testing methods, discontinuities, and visual inspection of welds. This class provides knowledge useful for passing the American Welding Society's Certified Welding Inspector's exam.

WELD 160 Metal Layout for Fabrication (3)
6 hours lecture/laboratory
Note: *May be taken 4 times*
This course provides students with knowledge of basic layout, fitup, fabrication, safe operation of shop equipment. Parallel line, radial line, and triangulation layout will be taught. Students will work from drawings or sketches to prepare, form, or cut multiple parts for assembly.

WELD 196 Special Problems in Welding (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in WELD 100, or concurrent enrollment in WELD 100*
Note: *May be taken 4 times*
This course is designed to aid the student in the enrichment of the area of concentration in welding and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

WELD 197 Welding Technology Topics (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Topics in Welding Technology. See Class Schedule for specific topic offered. Course title will designate subject covered.

Women's Studies

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2330
Office: W-1

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Women's Studies

PROGRAM OF STUDY

Women's Studies

This major offers the student an opportunity to study women and their contributions from a female perspective. It also provides intensive, interdisciplinary lower-division preparation necessary for pursuing advanced coursework in Women's Studies. Transfer students should consult the four-year college or university catalog for specific requirements.

A.A. DEGREE MAJOR

Program Requirements		Units
SOC 115	Introduction to Women's Studies	3
Electives (Select a minimum of 15 units)		
AIS 165	Native Women in the Americas	3
COMM 105	Race, Gender and Media Effects	3
ENG 280	Women and Literature	3
HIST 130	Women in United States History	3
PSYC/SOC 125	Human Sexuality	3
PSYC 130	Psychology of Women	3
PSYC/SOC 145	Psychology and Sociology of Aging	3
TOTAL UNITS		**18**

Recommended Electives: ENG 100 and 202 with emphasis in Women's Studies issues.

Zoology (ZOO)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

COURSE OFFERINGS

ZOO 100 General Zoology (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in ZOO 101 or 101L*
Transfer acceptability: *CSU; UC – No credit if taken after ZOO 101/101L*
Principles of animal life and body organization. Structural and functional adaptations of major groups of the animal kingdom from protozoans through mammals. This is a general education course intended for non-science majors.

ZOO 101 Animal Kingdom (3)
3 hours lecture
Note: *Not open to students with prior credit in ZOO 100*
Transfer acceptability: *CSU; UC – No credit if taken after ZOO 100*
Structural and functional adaptations of major groups of the animal kingdom from protozoans through mammals. ZOO 101L laboratory optional.

ZOO 101L Animal Kingdom Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ZOO 101, or concurrent enrollment in ZOO 101*
Note: *Not open to students with prior credit in ZOO 100*
Transfer acceptability: *CSU; UC – No credit for ZOO 101/101L if taken after 100*
Investigations upon living and preserved specimens representative of the major groups of the animal kingdom. This is a general education course intended for non-science majors.

ZOO 115 Natural History of Animal Life (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in ZOO 116 or 116L*
Transfer acceptability: *CSU; UC – ZOO 115, 116/116L combined: maximum credit, 4 units*
Consideration of the natural history, adaptations, ecology, behavior, and distribution of animals with reference to major groups of both vertebrates and invertebrates. Weekend field trips are required.

ZOO 116 Natural History of Animal Life (Lecture) (3)
3 hours lecture
Note: *Not open to students with prior credit in ZOO 115*
Transfer acceptability: *CSU; UC – ZOO 115, 116/116L combined: maximum credit, 4 units*
Consideration of the natural history, adaptations, ecology, behavior, and distribution of animals with reference to major groups of both invertebrates and vertebrates

ZOO 116L Natural History of Animal Life (Laboratory) (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ZOO 116, or concurrent enrollment in ZOO 116*
Note: *Not open to students with prior credit in ZOO 115*
Transfer acceptability: *CSU; UC – ZOO 115, 116/116L combined: maximum credit, 4 units*
The radiative adaptation of representative animals to various habitats and modes of life; field observation of major fauna of littoral, chaparral, desert, and mountain environments. Weekend field trips are required.

ZOO 120 Animal Behavior (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Biological basis of behavior including behavior genetics, operation of evolutionary processes on species typical behaviors, behavioral ontogeny, functional organization of nervous systems, animal senses, motivation including hormonal effects on drive, and biorhythms; behavioral ecology including social behavior and social living, reproductive behaviors, homing and migration, antipredatory defenses, feeding strategies, and communication.

ZOO 135 Biology of Marine Mammals (3)
3 hours lecture
Note: *Cross listed as BIOL 135*
Transfer acceptability: *CSU; UC*
The fundamentals of marine mammal biology are explored. Topics include comparative anatomy, evolution, cladistics, mammalian physiology, ecology and zoogeography, behavior and conservation as they apply to the study of marine mammals.

ZOO 145 Introduction to Anatomy and Physiology (3)
3 hours lecture
Note: *Not open to students with prior credit in ZOO 200,203 and 205*
Transfer acceptability: *CSU; UC – ZOO 145/145L and BIOL 106/106L or BIOL 105 combined: maximum credit, 4 units; UC – No credit for ZOO 145/145L if taken after ZOO 203, 205/205L, or 200*
Introduction to the structure and function of human body systems in health and disease. Not recommended for those intending to take BIOL 105, 106, ZOO 200, 203, or 205.

ZOO 145L Introduction to Anatomy and Physiology Laboratory (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ZOO 145, or concurrent enrollment in ZOO 145*
Transfer acceptability: *CSU; UC – ZOO 145/145L and BIOL 106/106L or BIOL 105 combined: maximum credit, 4 units; UC – No credit for ZOO 145/145L if taken after ZOO 203, 205/205L, or 200*
Introduction to the structure and function of human body systems. Includes study of cells, tissues, and human organ systems. Not recommended for those intending to take BIOL 105, 105L, 106, ZOO 200, 203, 205, or 205L.

ZOO 195A Field Study of Marine Invertebrates (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – ZOO 195A-F combined: maximum credit, 2 courses*
Extended field study of the fauna of marine intertidal and subtidal habitats of selected geographic regions, with emphasis upon field identification, observation and interpretation of behavioral and ecological interrelationships of animals to their environment and to one another. See Class Schedule for locality to be visited.

ZOO 195B Field Study of Marine Vertebrates (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: CSU; UC – ZOO 195A-F combined: maximum credit, 2 courses
Extended field study fishes and marine reptiles and mammals, with emphasis upon identification, behavior, and adaptations. See Class Schedule for locality to be visited.

ZOO 195C Field Study of Terrestrial Vertebrates (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – ZOO 195A-F combined: maximum credit, 2 courses*
Extended field study of terrestrial mammals, reptiles, and amphibians, emphasizing identification, behavior, adaptations, and ecology. See Class Schedule for locality to be visited.

ZOO 195D Field Study of Birds (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – ZOO 195A-F combined: maximum credit, 2 courses*
Extended field study of terrestrial and aquatic avifauna of selected habitats, emphasizing identification and observation of native and migratory birds, their behavior, and adaptations. See Class Schedule for locality to be visited.

ZOO 195E Field Study of Terrestrial and Aquatic Invertebrates (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – ZOO 195A-F combined: maximum credit, 2 courses*
Extended field study of the land and freshwater invertebrate life of selected areas, emphasizing taxonomic identification, behavior, and ecological relationships. See Class Schedule for locality to be visited.

ZOO 195F Field Studies in Animal Ecology (1, 2, 3)
2, 4, or 6 hours lecture/laboratory
Note: *Fee charged; may be taken 4 times*
Transfer acceptability: *CSU; UC – ZOO 195A-F combined: maximum credit, 2 courses*
Extended field studies of the fauna of selected ecosystems, emphasizing identification of animal species and observations upon their interspecific and conspecific interactions and ecological relationships with flora. See Class Schedule for locality to be visited.

ZOO 197 Zoology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus*
Topics in Zoology. See Class Schedule for specific topic offered. Course title will designate subject covered.

ZOO 200 Anatomy (4)
2 hours lecture-7 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 102; or BIOL 200; or BIOL 100; or BIOL 101 and 101L; or BIOL 105; or BIOL 106 and BIOL 106L*
Transfer acceptability: *CSU; UC*
Designed to provide a basic understanding of the structure of the human body. Laboratory includes a study of anatomy through cat and organ dissection, skeletal study, use of models and other visual aids.

ZOO 203 Physiology (4)
2 hours lecture-7 hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 102; or BIOL 200 and CHEM 104 or CHEM 100; or BIOL 100 and CHEM 104 or CHEM 100; or BIOL 105 and CHEM 104 or CHEM 100; or equivalent*
Note: *Not open to students with prior credit in 205L*
Transfer acceptability: CSU; UC
Principles of human physiology including laboratory exercises. Deals with physiology of muscle, nerve, circulation, respiration, excretion, digestion, the endocrines and exercise.

ZOO 295 Directed Study in Zoology (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: May be taken 4 times
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus*
Independent study for students who have demonstrated skills and/or proficiencies in Zoology subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Regional Occupational Program (ROP)

Palomar College, under contract with the San Diego County Office of Education, offers vocational and technical training through the Regional Occupational Program.

Courses provided through ROP are available to college and high school students, out-of-school youths, and adults residing in San Diego County. Courses can be used for basic job skills, upgrading of existing skills, or changing occupations. Units earned may be used for high school or college credit. ROP courses taken for college credit may be applied toward Palomar College Certificates/Degrees.

Contact the ROP Office for further information.
(760) 744-1150, ext. 2293
Office: AA-136

Automotive Technology (R AT)

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Auto Collision Repair

Certificate of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Auto Collision Repair

PROGRAM OF STUDY

Auto Collision Repair

This program will prepare students for an entry level position in the automotive collision repair industry.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
R AT 50	Auto Body Repair I	4
R AT 51	Auto Body Repair II	4
R AT 55	Auto Refinishing I	4
R AT 56	Auto Refinishing II	4
IT 108 / WELD 108	Technical Mathematics	3
Elective Courses (Select 6 units)		
AT 100	Auto Maintenance and Minor Repair	3
AT 105	Automotive Electricity	3
AT 105L	Automotive Electricity Computer Training Lab	1
AT 150	Chassis Restoration and Assembly	3
AT 155	Body Restoration and Assembly	3
AT/R AT 97	Auto Body Repair/Auto Refinishing Topics	0.5 - 4
WELD 100	Welding I	3
CE 100	Cooperative Education	1 - 4
Total units		**25**

Auto Collision Repair A.A. Degree or Certificate of Achievement is also listed under Automotive Technology.

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

Courses numbered under 100 are not intended for transfer credit.

R AT 50 Auto Body Repair I (4)
8 hours lecture/laboratory
Note: *Graded only; may be taken 3 times*
Automotive body work with emphasis on repair. Includes welding; working with small damage points; restoring contour of body panels and sections; and realigning bumpers, fenders, doors, and hoods.

R AT 51 Auto Body Repair II (4)
8 hours lecture/laboratory
Recommended preparation: *R AT 50*
Note: Graded only; may be taken 3 times
Automotive body work with emphasis on increasing diagnostic, estimating and repair skills and updating techniques and related technologies. Introduction to collision industry standards including I-CAR and ASE.

R AT 55 Auto Refinishing I (4)
8 hours lecture/laboratory
Note: *Graded only; may be taken 3 times*
Introduction to auto refinishing. Preparation of auto surfaces for refinishing: taping, cleaning, and sanding. Refinishing auto surfaces: sanding, application of primers and paint.

R AT 56 Auto Refinishing II (4)
8 hours lecture/laboratory
Recommended preparation: *R AT 55*
Note: *Graded only; may be taken 3 times*
Skills development in automotive refinishing techniques including base-coat clear-coat application. Color matching concepts. Identification, prevention and correction of painting problems. Update on new products, techniques, and trends.

R AT 97 Auto Body Repair/Auto Refinishing Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Graded only; may be taken 4 times*
Topics in auto body repair and auto refinishing. See Class Schedule for specific topic offered. Course title will designate subject covered.

Computer Science and Information Systems (R CSIS)

Certificate of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Software Applications Specialist

PROGRAMS OF STUDY

Software Applications Specialist

Prepares students for employment in positions that require competence in software applications common to business and industry.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

CERTIFICATE OF PROFICIENCY

Program Requirement		**Units**
R CSIS 109	QuickBook Overview	1
R CSIS 120/ CSIT 120	Computer Applications	3
R CSIS 121	Microcomputer Applications – Advanced	3
R CSIS 110/ CSWB 110 or R CSIS 138	Web Site Development with XHTML / Website Design with FrontPage	2
R CSIS 170 or CSIT 130	Windows / Windows Vista	1
R CSIS 186	Contemporary Job Search	1
TOTAL UNITS		**11**

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

R CSIS 109 QuickBooks Overview (1)
2 hours lecture/laboratory
Note: *Graded only; may be taken 3 times*
Transfer acceptability: *CSU*
Overview and application of QuickBooks to set up and manage bookkeeping/accounting records for small businesses.

R CSIS 110 Web Site Development with XHTML (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as CSWB 110; graded only, may be taken 3 times*
Transfer acceptability: *CSU*
A foundation course for Internet/Intranet technologies. Skills required to develop and publish web sites utilizing XHTML, including using HTML tables, frames, web page forms, and basic CSS (Cascading Style Sheets).

R CSIS 116 Introduction to Computers (2)
1 hour lecture-2 hours lecture/laboratory
Note: *Graded only*
Transfer acceptability: *CSU*
Introduction to basic computer operations and the Windows operating system for students with little or no background in computer science. Includes terminology and techniques as well as keyboarding and mouse functions. Also includes: window management; creating and managing files and folders; performing basic system maintenance using Windows accessory programs; word processing; and accessing the Internet.

R CSIS 120 Computer Applications (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as CSIT 120; graded only; may be taken 4 times; maximum of 4 completions in any combination of CSIT/R CSIS 120, CSIT 121*
Transfer acceptability: *CSU*
Hands-on experience with microcomputers and microcomputer applications featuring the use of Windows, word processing, spreadsheet, database, and presentation graphics software.

R CSIS 121 Advanced Computer Applications (3)
1 hour lecture- 4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CSIS 120/CSIT 120*
Note: *Graded only; may be taken 2 times*
Transfer acceptability: *CSU*
This course builds upon fundamental knowledge of Windows operating system and Microsoft Office Suite (Word, Excel, Access and PowerPoint) to progress into advanced functions of each element as well as integration of various elements.

R CSIS 125 Presenting with PowerPoint (1)
2 hours lecture/laboratory
Recommended preparation: *R CSIS 170 or CSIT 130*
Note: *Graded only*
Transfer acceptability: *CSU*
Comprehensive study and application of PowerPoint multimedia capabilities to create effective audience-focused presentations, live and web-based. Preparation of documents in various formats to include: animated slideshows, speaker notes, audience handouts, outlines and web sites.

R CSIS 127 Word Processing Software – Basic (1)
2 hours lecture/laboratory
Recommended preparation: *A keyboarding speed of 20 net words a minute*
Note: *Graded only; may be taken 4 times*
Transfer acceptability: *CSU*
Study of word processing skills using Microsoft Office. Course includes file creation, modification, and formatting, saving and printing files, graphics, report generation elements, and integration of Word documents within the Office suite. Hands-on labs using state of the art software are an integral part of this course, as well as guided instruction.

R CSIS 130 Microsoft Publisher (1)
2 hours lecture/laboratory
Recommended preparation: *R CSIS 127 and R CSIS 170 or CSIT 130, or BUS 170 or OIS 136.1*
Note: *Cross listed as BUS 186; graded only, may be taken 4 times.*
Transfer acceptability: *CSU*
Hands-on applications of Microsoft Publisher, a comprehensive software package that combines text, graphics, illustrations, and photographs to produce typeset quality documents for local printer output or commercial printing. Includes: newsletters; brochures; flyers; web pages; business cards; letterheads and envelopes; advertising and marketing materials; greeting cards; PDF and web file formats; and printing options.

R CSIS 138 Website Design with FrontPage (2)
4 hours lecture/laboratory
Recommended preparation: *R CSIS 110/CSWB 110*
Note: *Graded only*
Transfer acceptability: *CSU*
Comprehensive study of web site development and maintenance using Microsoft FrontPage. Includes creation of web pages, application of design elements; comparison of search engines, familiarity with source code, and use of interactive forms to create client databases. Also includes uploading, testing and modification of web site.

R CSIS 150 Computer Spreadsheets (3)
6 hours lecture/laboratory
Note: *Graded only*
Transfer acceptability: *CSU*
In-depth study of the varied applications of spreadsheets using Microsoft Excel. Create, modify, format and maintain multiple page worksheets; enter numeric and text data for manipulation; and create and copy formulas. Includes integration of Excel spreadsheets within Microsoft Office Suite. Hands-on experience in networked lab.

R CSIS 170 Windows (1)
2 hours lecture/laboratory
Note: *Graded only*
Transfer acceptability: *CSU*
Fundamentals of Windows Graphical User Interface. Students will develop proficiency in: changing desktop settings; file/folder management at both desktop and Explorer levels; and basic system maintenance.

R CSIS 175 Excel (1)
2 hours lecture/laboratory
Note: *Graded only; may be taken 2 times*
Transfer acceptability: *CSU*
Study of spreadsheets using Microsoft Excel. Course includes creating spreadsheets, formatting data, manipulating data, creation and application of formulas, charting data, and printing considerations. Preparation for the Excel MOS certification exam.

R CSIS 180 Access (1)
2 hours lecture/laboratory
Note: *Graded only; may be taken 2 times*
Transfer acceptability: *CSU*
Study of Access database program within the Microsoft Office Suite. This class introduces and reinforces the creation, modification and maintenance of Access databases. Students will create the database structure, enter data in tables, execute queries, generate reports and forms, modify properties and layout at the design level and maintain the database. Preparation for the Access MOUS certification exam.

R CSIS 186 Contemporary Job Search Techniques (1)
2 hours lecture/laboratory
Note: *Graded only*
Use the Internet, current software and research tools to organize and implement a job search. Includes: online resources; preparation and posting of application materials, including resume and cover letters; interview strategies and mock interviews; industry speakers, and hard copy and online portfolios.

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Culinary Arts (R CUL)

See also Culinary Arts

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Culinary Arts

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Culinary Arts

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Culinary Skills
• Patisserie and Baking

PROGRAMS OF STUDY

Culinary Arts

Prepares students for employment and career opportunities in various areas of the foodservice industry. The focus is on food preparation and production skills, with supporting coursework in nutrition, food sanitation and safety, menu planning, purchasing and inventory control, kitchen management and employee supervision. Practical hands-on lab activities in a commercial kitchen environment and directed workplace learning opportunities prepare students for foodservice positions in resorts, casinos, and fine dining establishments.

Students will need to possess a current San Diego County Food Handler Card to participate in kitchen/lab activities.

In order to earn a certificate or degree, students must achieve a minimum grade of 'C' in each of the certificate program courses.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
FCS/MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/CUL 110	Culinary Essentials I	3
R CUL/CUL 111	Culinary Essentials II	3
R CUL/CUL 120	Patisserie and Baking I	3
R CUL/CUL 121	Patisserie and Baking II	3
R CUL/CUL 130	Pantry/Garde Manger	3
R CSIS/CSIT 120	Computer Applications	3
R CUL/CUL 200	Menu Planning and Purchasing	2
R CUL/CUL 210	Foodservice Management	3
R CUL/CUL 220	Catering and Event Planning	3
R CUL/CUL 298	Culinary Directed Practice I	3
R CUL/CUL 299	Culinary Directed Practice II	3
Electives (Select a minimum of 3 units)		
R CUL/CUL 115	Dining Room Service	2
R CUL/CUL 150	International Cuisine	3
R CUL/CUL 230	Adv Garde Manger/Competition	3
R CUL/CUL 240	Wines and Affinities	1
TOTAL UNITS		**41**

Culinary Skills

With a focus on basic food preparation and production skills, nutrition, and food safety and sanitation, the program prepares students for various entry-level positions in the foodservice industry. Practical hands-on lab activities in a modern commercial kitchen environment provide opportunities for students to master the skills required for employment.

Students will need to possess a current San Diego County Food Handler Card to participate in required kitchen/lab activities.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
FCS/MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/CUL 110	Culinary Essentials I	3
R CUL/CUL 111	Culinary Essentials II	3
R CUL/CUL 130	Pantry/Garde Manger	3
R CUL/CUL 115	Dining Room Service	2
TOTAL UNITS		**7**

Patisserie and Baking

With a focus on commercial baking and pastry making, the program prepares students for entry-level positions in bakeries, restaurants, resorts and casino operations. Practical hands-on lab activities in a modern commercial kitchen environment provide opportunities for students to master the skills required for employment.

Students will need to possess a current San Diego County Food Handler Card to participate in required kitchen/lab activities.

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
FCS/MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/CUL 120	Patisserie and Baking I	3
R CUL/CUL 121	Patisserie and Baking II	3
TOTAL UNITS		**12**

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

R CUL 110 Culinary Essentials I (3)
1 hour lecture-4 hours laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended preparation: *FCS/MICR 110*
Note: *Cross listed as CUL 110; graded only*
Transfer acceptability: *CSU*
Introduction to culinary arts and the foodservice industry. Fundamentals of food preparation and production, emphasizing industry standards. Lab work will focus on knife skills, standard cuts, and preparation of vegetables and starches. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 111 Culinary Essentials II (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 110*
Note: *Cross listed as CUL 111; graded only*
Transfer acceptability: *CSU*
Advanced food production, including meat and protein fabrication. Lab work will include: stocks, sauces and soups; meat and game; poultry; fish and seafood; breakfast foods and classical cuisine. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 115 Dining Room Service (2)
4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Note: *Cross listed as CUL 115; graded only*

Orientation to dining room operations with an emphasis on dining room service, techniques of table waiting, and dining room skills. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 120 Patisserie and Baking I (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended preparation: *FCS/MICR 110*
Note: *Cross listed as CUL 120; graded only; may be taken 2 times*
Fundamentals of baking, including ingredient properties and function, and preparation and evaluation of a variety of yeast products, quick breads, cookies, cakes, pies and pastries. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 121 Patisserie and Baking II (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 120*
Note: *Cross listed as CUL 121; graded only; may be taken 2 times*
Advanced skills in the art of patisserie. Includes classic pastries, pâte à choux, and meringues; plated desserts; and cake decorating. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 130 Pantry/Garde Manger (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended preparation: *R CUL/CUL 110*
Note: *Cross listed as CUL 130; graded only*
Introduction to cold food preparation and display. Includes salads, dressings, sandwiches and canapés. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 150 International Cuisine (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Note: *Cross listed as CUL 150; graded only*
A hands-on cooking, tasting and evaluating exploration of the major cuisines of the world. Includes Asian, Latin, European and American cuisines with a focus on the cultures that influenced their development. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 197 Culinary Arts Topics (.5-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Cross listed as CUL 197; may be taken 4 times*
Transfer acceptability: *CSU*
Topics in Culinary Arts. See Class Schedule for specific topic offered. Course title will designate subject covered.

R CUL 200 Menu Planning and Purchasing (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and FCS 165/HE 165 and R CSIS 120/CSIT 120*
Note: *Cross listed as CUL 200; graded only*
Transfer acceptability: *CSU*
Basic principles of menu planning and purchasing with emphasis on: menu design; specifications and pricing; purchasing, inventory control and storeroom operations; and food and beverage cost control. Includes spreadsheet and database applications. Students will be expected to meet high standards of professionalism and work habits.

R CUL 210 Foodservice Management (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111*
Note: *Cross listed as CUL 210; graded only*
Introduction to foodservice management with emphasis on human relations and employee development. Includes operational planning and coordination, problem-solving and decision-making, and personnel management. Students will be expected to meet high standards of professionalism and work habits.

R CUL 220 Catering and Event Planning (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and R CUL/CUL 130*
Note: *Cross listed as CUL 220; graded only*
Transfer acceptability: *CSU*
Fundamentals of catering, including event planning, menu development and banquet preparation. Includes opportunities to apply culinary theory and skills in actual practice. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 230 Adv Garde Manger/Competition (3)
1 hour lecture-4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and R CUL/CUL 130*
Note: *Cross listed as CUL 230; graded only*
Application of advanced garde manger techniques in practical situations and culinary competition. Includes classical buffet presentation, decorative displays and artistic centerpieces. Students will be expected to meet high standards of professionalism, sanitation and work habits.

R CUL 240 Wines and Affinities (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111*
Note: *Cross listed as CUL 240; graded only*
Classification and identification of wines, with emphasis on properties and affinities with food. Includes wines from various regions of the world. Students will be expected to meet high standards of professionalism and work habits.

R CUL 298 Culinary Directed Practice I (3)
3 hours lecture-10 hours laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 111 and R CUL/CUL 130 or R CUL/CUL 121*
Note: *Cross listed as CUL 298; graded only*
Directed learning opportunity for culinary arts students to increase their knowledge and skill in the areas of hot and cold food production through supervised on-the-job training. Students will be expected to follow Culinary Arts standards of professionalism. Current San Diego County Food Handler Card and TB clearance required.

R CUL 299 Culinary Directed Practice II (3)
3 hours lecture-10 hours laboratory
Prerequisite: *A minimum grade of 'C' in R CUL/CUL 298, R CUL/CUL 200, FCS 110/MICR 110 and FCS 165/HE 165*
Note: *Cross listed as CUL 299; graded only*
Directed entry-level professional work experience in the foodservice industry that provides exposure to the foodservice industry and an opportunity for culinary arts students to practice and demonstrate their employability skills and reflect on their future roles in the industry. Students will be expected to follow Culinary Arts standards of professionalism. Current San Diego County Food Handler Card and TB clearance required.

Graphic Communications - Imaging & Publishing (R GCIP)

See also Graphic Communications and Graphic Communications - Multimedia & Web

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

R GCIP 140 Digital Imaging/Photoshop I (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *Basic computer skills.*
Note: *Cross listed as GCIP 140; graded only; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 140, GCIP 140A, 140B, 141, 141A, 141B, 240*

To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or CR in the prerequisite course, unless otherwise stated.

Transfer acceptability: *CSU; UC*
The study of digital imaging and editing with Adobe Photoshop for visual, pictorial and graphic use in all media. Emphasis on creating and enhancing imagery for effective use in mass communication mediums.

R GCIP 149 Page Layout and Design I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as GCIP 149; may be taken 4 times*
Transfer acceptability: *CSU*
Introduction to electronic document design and page layout, electronic composition, text and graphics entry with computers. Students will create a variety of projects including but not limited to: brochures, flyers, and newsletters.

R GCIP 152 Desktop Publishing/Illustrator I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as GCIP 152; graded only; may be taken 4 times; maximum of 4 completions in any combination of GCIP/R GCIP 152, GCIP 152A, 152B, 252*
Transfer acceptability: *CSU*
Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images into PostScript. Quality levels needed for electronic output will be evaluated.

R GCIP 172 Textile Screen Printing (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as GCIP 172; graded only; may be taken 4 times*
Transfer acceptability: *CSU*
Theory and application of screen printing for textile use. Copy preparation for multicolor reproduction, color matching, ink selection, and mesh and stencils for material compatibility.

R GCIP 197A Topics in Graphic Communications (1-4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Cross listed as GCIP 197A; graded only; may be taken 3 times*
Transfer acceptability: *CSU*
Short term or special topic course, lecture or laboratory courses in various topics in Graphic Communications.

R GCIP 249 Page Layout and Design II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP/R GCIP 140 and GCIP/R GCIP 149*
Note: *Cross listed as GCIP 249; may be taken 4 times*
Transfer acceptability: *CSU*
Intermediate concepts of electronic document layout, typography, and graphics. Software capabilities in creating sophisticated graphic and type treatments.

R GCIP 260 Portfolio Development and Presentation (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in R GCIP/GCIP 140 and R GCIP/GCIP 152*
Note: *Cross listed as GCIP 260; graded only; may be taken 2 times*
Transfer acceptability: *CSU*
Students will develop a personal portfolio to showcase their graphic skills and techniques. Various resources, including the Internet, will be used to conduct a job search, develop a resume and learn interviewing techniques. Guest speakers will share industry tips. Students will practice presentation and interviewing skills, with feedback from professionals working in graphics and related industries.

Graphic Communications - Multimedia & Web (R GCMW)

See also Graphic Communications and Graphic Communications - Imaging & Publishing

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

R GCMW 101 Multimedia I (4)
3 hours lecture þ 3 hours laboratory
Note: *Cross listed as GCMW 101; graded only; may be taken 4 times; maximum of 4 completions in any combination of GCMW/R GCMW 101, GCMW 201*
Transfer acceptability: *CSU*
Introduction to multimedia authoring software combining text, graphics, sound, animation, video clips, and user interface to produce effective visual presentations.

R GCMW 102 Web Page Layout I (4)
3 hours lecture - 3 hours laboratory
Note: *Cross listed as GCMW 102; graded only; may be taken 4 times; maximum of 4 completions in any combination of GCMW/R GMMW 102, GCMW 102A, 102B, 202*
Transfer acceptability: *CSU*
A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, and structured page design for effective Internet communications.

Optical Technology (R OT)

COURSE OFFERINGS

Courses taken for college credit may be applied toward a certificate or an Associate in Arts degree.

Courses numbered under 100 are not intended for transfer credit.

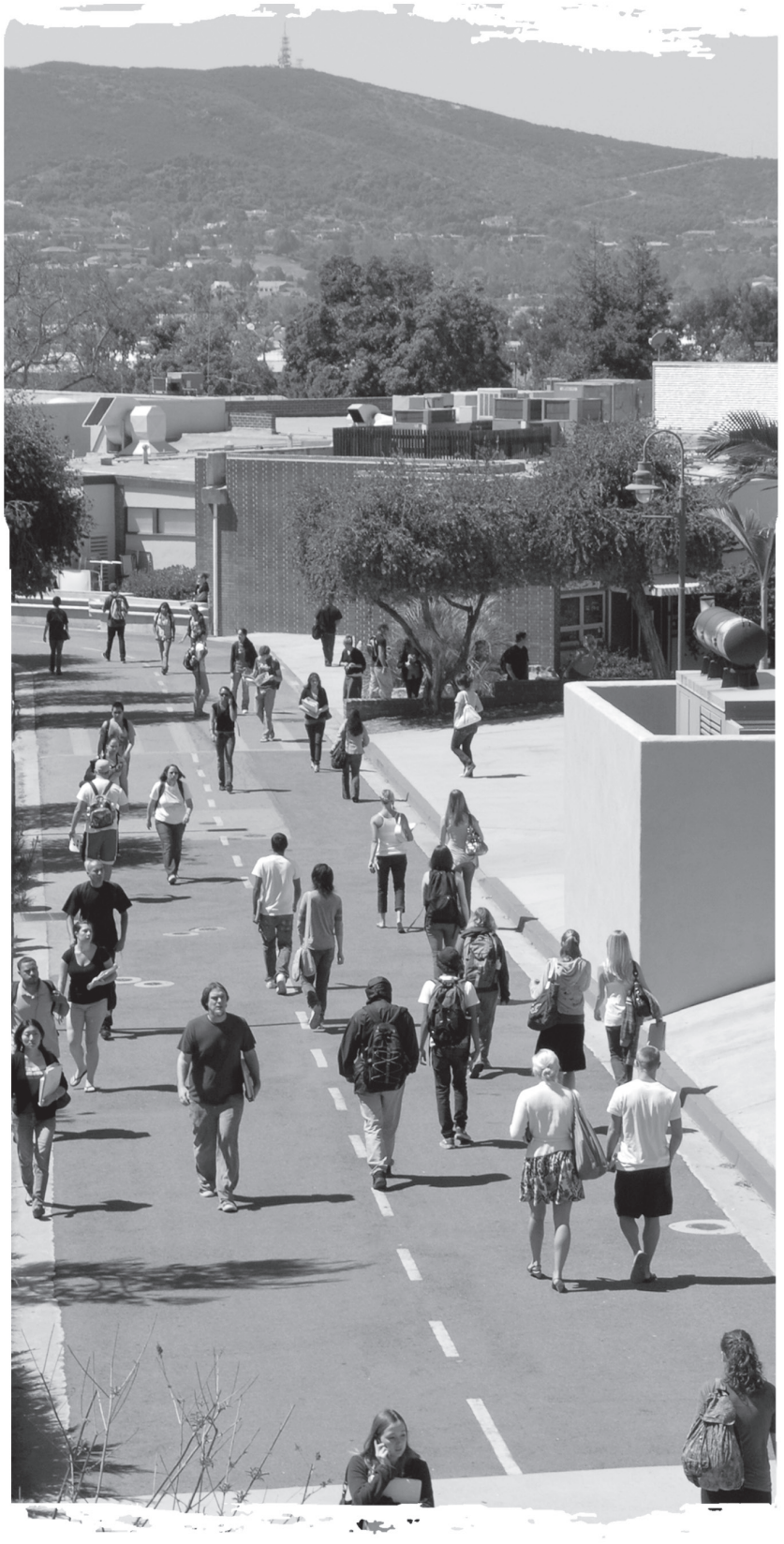
R OT 70 Ophthalmic Medical Assisting I (2)
4 hours lecture/laboratory
Note: *Graded only*
Introduction to assisting in the ophthalmic medical environment. Topics include ophthalmic exam, ophthalmic drugs, structure, function and common diseases of the eye and related tissues, optics and refraction, ocular motility and visual fields. Course content aligns with national certification standards for Certified Ophthalmic Assistant (COA) as set forth by the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO).

R OT 75 Ophthalmic Medical Assisting II (2)
4 hours lecture/laboratory
Prerequisite: *A minimum grade of 'C' in R OT 70*
Note: *Graded only*
Intermediate-level training in the ophthalmic health field. Includes keratometry, topography, refractometry, retinoscopy, slit lamp examination, tonometry, visual field testing, ultra-sound A-Scan measurements, intraocular implant calculations and ultra-sound B-Scan examination. Course content aligns with national certification standards for Certified Ophthalmic Technician (COT) as set forth by the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO).

R OT 97 Optical Technology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Graded only; may be taken 4 times*
Topics in Optical Technology. See Class Schedule for specific topic offered. Course title will designate subject covered.

8

Noncredit Courses and Certificates



Music
Legal Studies
Anthropology
Zoology
Fire Technology
Degrees
Geology
History
Digital Imaging
Spanish
Photography
Microbiology
Philosophy
Cinema
Theatre Arts
Real Estate
Astronomy
Three-Dimensional Arts
Cabinetmaking and Furniture Design
Paramedic Training
Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
Dental Assisting
Screen Printing
Preschool Teacher
Chemistry
Earth Sciences
Health
Psychology
Digital Video
Biology
Economics
Diesel Mechanics Technology
Fashion: Buying and Management
Engineering
Illustration
Mathematics
Athletics and Competitive Sports
Interior Design
American Sign Language
Culinary Arts
Nursing
Aviation Sciences
e-Business
Oceanography
Green Building Professional
Computer Science and Information Systems
Digital Animation, Compositing and Music
Wastewater Technology Education
World Cultures

Noncredit Courses and Certificates

Noncredit education fulfills the mandate to California's Community Colleges to provide noncredit courses designed to meet the special needs and capabilities of those students who do not desire or need to obtain unit credit. These courses provide developmental, occupational and other general educational opportunities as may be deemed necessary to provide for the civic and liberal education of the citizens of the community. All classes are taught by qualified instructors. The program is offered by Occupational & Noncredit Programs within the Division of Career, Technical, and Extended Education Division.

The State has defined the following nine specific categories for funding: Parenting Education, Elementary and Secondary Basic Skills, English as a Second Language, Immigrant Education, Education Programs for Persons with Substantial Disabilities, Short-term Vocational Programs, Education for Older Adults, Education Pograms for Home Economics, and Health and Safety Education.

To make the classes and programs more accessible, classes are offered throughout the district in community and senior centers, museums, parks, libraries, banks, churches, convalescent hospitals, as well as at the San Marcos campus, the Escondido Center, and six Palomar College education sites.

The classes may vary in length from four weeks to seventeen weeks. Although some classes are tailored for a specific student constituency, all classes are open to the public. No enrollment fees are charged for the noncredit classes. Students who take noncredit classes on the San Marcos campus or at the Escondido Center will be required to pay health fees and parking fees.

Noncredit certificates of completion are offered in Adult Basic Education and in English as a Second Language.

Adult Basic Education (N ABED)

Contact the English as a Second Language Department for further information and registration procedures at (760) 744-1150, ext. 2272.

Adult Basic Education Noncredit Certificate of Completion

This two-course sequence is designed to equip students with the basic reading and writing skills, basic computational skills and critical thinking skills needed for employment or to prepare for GED preparation courses, job training and college level courses for a career or for associate or transfer degree programs. In order to earn a certificate, students must successfully complete N ABED 202.

Certificate Requirements
N ABED 201 Literacy/Adult Basic Education I
N ABED 202 Literacy/Adult Basic Education II

COURSE OFFERINGS

N ABED 201 Literacy/Adult Basic Education I
96 to 192 hours lecture
This course is designed to help learners to improve basic reading and writing skills, basic arithmetic computational skills, and critical thinking skills; to develop skills for the workplace; and to prepare for future educational opportunities. Learners participate in an individually prescribed program which includes classrooms activities, independent activities, collaborative learning, and mediated learning.

N ABED 202 Literacy/Adult Basic Education II
96 to 192 hours lecture
This course is designed to help learners to improve reading and writing skills, computational skills, critical thinking skills; to develop basic computer skills; to develop skills for the workplace; and to prepare for future educational opportunities. Learners participate in an individually prescribed program which includes classrooms activities, independent activities, collaborative learning, and mediated learning.

Basic Education (N BASC)

Contact the Occupational & Noncredit Programs Department at (760) 744-1150, ext. 2155 for further information and registration procedures.

COURSE OFFERINGS

N BASC 200 Literacy/Adult Basic Education
64-96 hours lecture
This course is designed to help learners improve basic reading skills, critical thinking skills, computational skills, and writing skills; to develop skills for the workplace; and to prepare for future educational opportunities. Learners participate in an individually prescribed program which includes classroom activities, independent activities, collaborative learning, and mediated learning.

N BASC 202 Supervised Tutoring
16 hours laboratory
This course provides supplemental instruction in academic subjects for individual students to improve their knowledge or abilities in the tutored subject.

Career and Technical Education (N CTED)

Contact the Occupational & Noncredit Programs Department at (760) 744-1150, ext. 2155 for further information and registration procedures.

COURSE OFFERINGS

N CTED 602 Shop Safety and Hand Tools
8 hours lecture/laboratory
This entry level course stresses the importance of safety while working in the automotive shop. Students will learn the proper operation and maintenance of a variety of hand tools. These skills are needed in many mechanical trades.

N CTED 603 Measuring Tools
6 hours lecture/laboratory
Students will learn the basics of performing precise measurements using a variety of special measuring tools, a primary skill in many mechanical trades.

N CTED 604 Power Tools
10 hours lecture/laboratory
Students will learn the proper operation and maintenance of a variety of power tools. Both hand-held and stationary tools will be included. The operation of this equipment is required in many mechanical trades.

N CTED 605 Basic Tutoring Training
16 to 32 hours lecture/laboratory
This course will teach college students to tutor other college students through lectures, discussions, video tapes, and practical experience.

Citizenship (N CTZN)

Contact the English as a Second Language Department for further information and registration procedures at (760) 744-1150, ext. 2272.

COURSE OFFERINGS

N CTZN 400 Citizenship
18 to 48 hours lecture
A general survey of U.S. history, government and civics, including culture, institutions, and use of community services and agencies. Designed to assist eligible individuals to become United States citizens. Includes practice of oral/aural/literacy skills in English necessary to pass an oral and written test with an Immigration and Naturalization Service official.

Disability Education (N DSAB)

Contact the Disability Resource Center at (760) 744-1150, ext. 2375 or the Occupational & Noncredit Programs Department at (760) 744-1150, ext. 2155 for further information and registration procedures.

COURSE OFFERINGS

N DSAB 500 Music and Movement
8-48 hours laboratory
This course facilitates the stimulation and integration of visual, tactile, and auditory senses through the use of music and physical movement, targeting receptive and expressive language skills, as well as gross and fine motor skills.

N DSAB 501 Independent Living Skills
48-150 hours lecture/laboratory
This course will provide independent living skills for the developmentally delayed, the adult acquired brain injury population, and the adventitiously blind population and stresses the practical application of basic skills and their use in daily life situations. Certain aspects of the course may be adapted to meet the specific needs of the student population being taught.

N DSAB 502 Creative Expression through Art
24-51 hours laboratory
This course facilitates participant's development of cognitive and social skills, as well as fine and gross motor development, through experience and participation in various art activities related to and including expressive art projects.

English as a Second Language (N ESL)

Contact the English as a Second Language Department for further information and registration procedures at (760) 744-1150, ext. 2272.

English as a Second Language Noncredit Certificate of Completion

This sequence of seven courses is designed to equip non-native speakers of English with the listening, speaking, reading and writing skills at the high intermediate level in English needed for employment or to successfully complete college level courses for a career or for associate or transfer degree programs. An assessment process determines appropriate initial placement in the sequence. In order to earn a certificate, students must successfully complete N ESL 306. The sequence is articulated with credit vocational English as a second language courses that prepare students to enter six recognized career fields and with degree applicable credit reading and composition courses.

The following course may be substituted: ESL 36 for N ESL 306.

Certificate Requirements

N ESL 300	Basic ESL
N ESL 301	Beginning ESL I
N ESL 302	Beginning ESL II
N ESL 303	Beginning ESL III
N ESL 304	Intermediate ESL I
N ESL 305	Intermediate ESL II
N ESL 306	Intermediate ESL III

COURSE OFFERINGS

N ESL 300 Basic ESL
48 to 192 hours lecture
Basic literacy and conversation development for non-native speakers of English.

N ESL 301 Beginning ESL I
48 to 192 hours lecture
Listening, speaking, reading, and writing skills for non-native speakers of English at the low-beginning level.

N ESL 302 Beginning ESL II
48 to 192 hours lecture
Listening, speaking, reading, and writing skills for non-native speakers of English at the mid-beginning level.

N ESL 303 Beginning ESL III
48 to 192 hours lecture
Listening, speaking, reading, and writing skills for non-native speakers of English at the high-beginning level.

N ESL 304 Intermediate ESL I
48 to 192 hours lecture
Listening, speaking, reading, and writing skills for non-native speakers of English at the low-intermediate level.

N ESL 305 Intermediate ESL II
48 to 192 hours lecture/laboratory
Listening, speaking, reading, and writing skills for non-native speakers of English at the mid-intermediate level.

N ESL 306 Intermediate ESL III
48 to 192 hours lecture/laboratory
Listening, speaking, reading, and writing skills for non-native speakers of English at the high-intermediate level.

Home Economics Education (N HMEC)

Contact the Occupational & Noncredit Programs Department at (760) 744-1150, ext. 2155 for further information and registration procedures.

COURSE OFFERINGS

N HMEC 101 Basic Sewing Skills
48 hours lecture/laboratory
The basic skills necessary for quality construction of apparel items will be presented, demonstrated, and applied.

Health and Safety Education (N HSED)

Contact the Occupational & Noncredit Programs Department at (760) 744-1150, ext. 2155 for further information and registration procedures.

COURSE OFFERINGS

N HSED 900 Rape Aggression Defense
12 hours lecture
The Rape Aggression Defense (R.A.D.) course provides realistic self-defense tactics and techniques for women. The R.A.D. system is a comprehensive, women-only course that begins with awareness, prevention, risk reduction and risk avoidance, and progresses to the basics of hands-on defense training.

N HSED 901 Community Emergency Response Team
24-30 hours lecture
Provides instruction and basic skills to private citizens which enable them to assist first responders and other community members in the aftermath of a disaster.

Older Adult Education (N ADLT)

Contact the Occupational & Noncredit Programs Department at *(760) 744-1150, ext. 2155 for further information and registration procedures.*

COURSE OFFERINGS

N ADLT 700 Adult Active Fitness
8-72 hours laboratory
A low impact aerobic exercise program designed specifically for the adult student. Exercises incorporate gentle but effective movements to increase endur-

ance, flexibility, agility, strength, and muscle tone. Stretch bands and weights may be incorporated into the course. The course may be adapted for individuals with physical challenges.

N ADLT 702 Drawing, Beginning (Portrait)

16-54 hours lecture/laboratory
Key elements necessary to draw the human figure and face with pencil, colored pencil, pen and ink, conte, charcoal, pastels, and mixed media.

N ADLT 703 Experimental Arts/Mixed Media

16-54 hours lecture/laboratory
Design and execution of works of art that incorporate a variety of media including but not limited to watercolor, oils, acrylics, colored pencils, pen and ink, pastels, wood, metal, fibers, and 'found' objects.

N ADLT 704 Focus on North County

16-54 hours laboratory
To explore and appreciate the unique character of San Diego through its history, people and cultures with an emphasis on providing older adults with the opportunity to be a vital participant in the community.

N ADLT 706 Hatha Yoga

12-72 hours lecture/laboratory
This course will allow the individual to progress from beginner to advanced status. Yoga integrates static and dynamic physical postures with mental discipline to achieve greater well-being. Students will increase strength, flexibility, and balance; decrease mental and physical stress; and improve circulation throughout the body.

N ADLT 707 Portrait Painting

16-72 hours lecture/laboratory
The fundamentals of painting the human figure and face using oil based media, acrylics, watercolor, and/or mixed media.

N ADLT 708 Quilting

16-72 hours lecture/laboratory
This course presents the design and execution of various techniques to produce a quilt. A variety of quilt designs will be presented.

N ADLT 709 So You Want to Write

16-72 hours lecture/laboratory
This course gives a practical approach to becoming a writer. The course will employ the read/critique format combined with lecture and guest speakers. Written self expression will be enhanced through exploration and appraisal of a variety of genre, elements of style, and introduction to the basic concepts of writing fiction and nonfiction. Students will gain practical knowledge regarding: selecting an agent; "pitching" a script idea; evaluating the options of self-publication and/or online publication; and submitting letters of inquiry, proposals and manuscripts to a variety of media.

N ADLT 710 Stitchery

16-72 hours lecture/laboratory
This course will introduce the design and production of a variety of handicrafts, folk arts, and needle arts. Attention will focus on integrating various materials, patterns, and techniques into creating unique artifacts.

N ADLT 711 Watercolor

16-72 hours lecture/laboratory
Instruction in basic to advanced techniques of transparent watercolor as a unique art form.

N ADLT 713 Beginning Tai Chi Kung

12-72 hours lecture/laboratory
Heart Coherent Tai Chi Kung provides practical training, with scientific and philosophical rationale and evidence, by which participants may improve and maintain holistic wellness. The practice of Heart Coherent Tai Chi Kung moving meditation and exercise offers a path to stress management, improved strength, flexibility, and balance and harmony of body and mind. This is an on-going course for learning and deepening into various Tai Chi Kung healing and wellness patterns, beginning with the Taking Wings Heart Coherent Tai Chi Kung form and expanding to others, continuing from semester to semester.

N ADLT 716 Keep it Moving with Arthritis

8-48 hours laboratory
This course is community-based, non-clinical program that involves group participation. Includes activities designed to improve certain physical parameters such as endurance and joint motion primarily for individuals with arthritis.

N ADLT 717 Cultural Discoveries for Older Adults

16-72 hours lecture
A multi-dimensional course designed to enhance the well being of the older adult through the exploration and appreciation of diverse cultures and peoples of the world, country by country. Students will become familiar with environmental conditions, culltural aspects, economic and political issues, religions, destination points of interest, physical attributes, history, music and food of each country. Studies include map recognition, regional climate, physical features, and cultural heritage. Employing the art, music, literature, language, travel videotapes and/or the cuisine of the chosen subject will give the student a unique opportunity to experience and appreciate different countries and ethnic cultures. A variety of media may be incorporated throughout the course. The course may be modified for residents of skilled and day care facilities as appropriate.

N ADLT 718 Introduction to Ceramics for Older Adults

24-54 hours lecture/laboratory
An introduction to basic forming techniques of clay including hand building, throwing and firing techniques.

N ADLT 719 Intermediate Tai Chi Kung

12-54 hours laboratory
This course will continue the practice of the original Taking Wings Heart Coherent Tai Chi Kung form. Each class will include practice of acupuncture meridian stimulating exercises. Participants will receive continuing instruction in additional forms including Nine Pieces of Brocade, Shamanic Tiger Chi Qigong and Shen Dao Tai Chi Kung, as well as elements of Yang Style Tai Chi Chuan and such other forms and patterns as seem profitable to all. Generally classes will include a seated meditation designed to expand conscious mastery of psychophysiological harmony, as well as specific instruction in acupressure meridian paths and points for facilitating chi flow.

N ADLT 720 Qigong For Energy and Wellness

12-54 hours lecture/laboratory
Qigong (vital energy cultivation) is the clinically proven modern science of physical and emotional healing based on ancient Chinese practice comprised of gentle exercises, breath relaxation techniques, and visualization/meditation. Students learn how to reduce stress, improve overall physical and emotional health, and enhance their immune system and self–healing capacity. "Healing" is defined as strengthening one's overall core health and well being. Students may stand and/or sit during any part of the class. On-going class.

N ADLT 721 A Matter of Balance: Managing Concerns About Falls of Older Adults

16 hours lecture
This older adults course is designed to reduce the fear of falling and increase appropriate activity levels to empower students. Participants learn to set realistic goals, increase activity, change their environment to reduce fall risk factors, and learn simple exercises to increase strength and balance.

N ADLT 722 Healthier Living: Managing Ongoing Health Conditions for the Older Adult

16 hours lecture
This course provides older adults with effective strategies and skills, good nutrition, and a regular fitness program to assist in managing personal health conditions and to maintain an active and fulfilling life.

N ADLT 723 Art Appreciation

48 hours lecture/laboratory
Art Appreciation offers to older adults a survey and study of the arts through the ages and the various cultures around the world. The exposure to the various media, styles and forms of art found from ancient civilizations to our contemporary times helps students to appreciate and value the creative endeavor and the many forms of art born of the need to express. This course is designed to engage each individual to be more active in their involvement and participation in the art life of the community and extend it to those around them as a result of their newfound interest and knowledge. It is meant to expand their life experience and give them a valuable and enriching new option in their later years.

2009-2010 Distinguished Faculty Award for Excellence in Teaching

Carol Bruton
Accounting
Full-Time

Naomi Lowe
Psychology
Part-Time

Laurel Anderson (PT)
Child Development

Jennifer Fererro(FT)
Child Development

Chantal Flanagan (FT)
Nursing

Cathy Haag (PT)
Business

Pat Hahn (FT)
Radio and Television

Leila Safaralian (PT)
Mathematics

Section 9
Academic Assignments

Note: In addition to the following list of full-time faculty, the Palomar College instructional programs are also supported by a great number of qualified part-time faculty.

The year indicated after each employee's name is the year first appointed to the Palomar College permanent academic staff.

Acevedo, Adelina (2003) Dental Assisting
B.A., The Autonomous University of Baja California

Adams, Carol L. (2004) Child Development Center
A.A., Palomar College
B.A., Ashford University
Child Development Site Supervisor Permit

Aegerter II, John G. (2000) Physical Education
B.S., University of Wyoming
M.Ed., Azusa Pacific University

Aguilera, Anna V. (2005) Extended Opportunity Programs and Services
B.A., University of California, Irvine
M.S., California State University, Long Beach

Albistegui-Dubois, Richard M. (2006) Life Sciences
B.A., University of California, Santa Cruz
Ph.D., University of California, Los Angeles

Alderson, Gary D. (1976) Life Sciences
B.S., University of Redlands
M.A., University of California Santa Barbara
Ph.D., University of California, Santa Barbara

Alidaee, Bahram (2001) Mathematics
B.S., Roosevelt University, Chicago
M.S., California State University, San Marcos

Andre, Sandra J. (2004) Design and Consumer Education
A.A., Palomar College
A.B., San Diego State University
M.S., National University

Anfinson, Cynthia J. (1996) Mathematics
B.A., University of California, San Diego
M.S., Cornell University

Antonecchia, Rosa I. (2001) Counseling
B.S., California State University, Fullerton
M.A., San Diego State University

Arguello, Michael T. (1991) Economics, History & Political Science
B.A., St. Mary's College of California, Moraga
M.A., San Diego State University
Ph.D., University of California, San Diego

Armistead, Alba-Maria (1984) Business Administration
A.A., Palomar College
B.S., San Diego State University
M.A., San Diego State University

Baker, Harry J. (2008) Library
B.S., University of Florida
M.L.I.S., University of California, Los Angeles

Barkley, Christine D. (1988) English
A.B., San Diego State College
M.A., San Diego State University

Barnaba, Ruth V. (1998) Tutorial Services
B.A., University of California, San Diego
M.A., United States International University

Barr, Rebecca A. (1986) Counseling
B.A., Scripps College
M.S., San Diego State University
Ph.D., Claremont Graduate School

Barrett, Kevin (1992) Public Safety Programs
A.A.S., Westchester Community College
B.S., Iona College
M.A., John Jay College of Criminal Justice, CUNY

Barry, Robert M. (1989) Communications
B.A., San Francisco State University
M.A., San Francisco State University

Barton, Michelle A. (2002) Institutional Research and Planning
B.A., San Diego State University
M.S., San Diego State University

Bealo, Mark J. (2001) Graphic Communications
A.A., Palomar College
B.S., California State University, San Marcos

Bell, Andrea G. (1992) English
B.A., University of Wisconsin
M.A., Hunter College
Ph.D., CUNY Graduate Center

Bertotti, Lisa (2008) Nursing Education
B.S.N., University of San Diego
M.S.N., University of San Diego

Bertram, Steven L. (1994) Trade and Industry
A.A., Palomar College
A.B., San Diego State University
M.A., San Diego State University

Bishop, Bruce E. (1977) Speech Communication/Forensics/ASL
A.B., San Diego State University
M.A., San Diego State University

Blankenship-Williams, Lesley E. (2008) Life Sciences
B.A., University of California, Santa Cruz
M.S., University of California, San Diego
Ph.D., University of California, San Diego

Bongolan, Glyn E. (2006) Counseling
B.A., University of California, San Diego
B.S., University of California, San Diego
M.A., San Diego State University

Bowman, Peter J. (2004) Economics, History & Political Science
B.A., University of California, San Diego
M.A., Arkansas State University

Boyajian, David A. (1981) Chemistry
B.S., California State University, Fresno
M.S., California State University, Fresno

Brandon, Patricia A. (2004) Chemistry
B.S., California State University, Hayward
M.S., California State University, Fullerton

Brannick, Monika (1995) Mathematics
B.A., San Diego State University
M.A., San Diego State University

Brock, Perri L. (2004) Mathematics
A.A., Mesa College
B.A., Loma Linda University
M.A., San Diego State University

Bruton, Carol M. (2007) Business Administration
B.A., Washington State University
M.B.A., University of Washington
M.P.A., University of Washington
Ph.D., University of Washington

Burgher, Ronald (2002) Computer Science and Information Systems
A.S., Arapahoe Community College, Colorado
B.S., Colorado State University
M.S., National University
Ph.D., University of Iowa

Byrne, Madelyn R. (2000) Performing Arts
B.A., State University of New York, Stony Brook
M.M., Brooklyn College
D.M.A., City University of New York

Canon, Terrie L. (2000) Computer Science and Information Systems
B.S., University of California, Santa Barbara

Carpenter, A. Carey (1997) Life Sciences
B.S., University of California, Riverside
Ph.D., University of California, Berkeley

Carrillo, Melinda D. (1978) Reading Services
B.A., California State University, Long Beach
M.S., California State University, Fullerton

Cassoni, Mary J. (2005) Business Administration
B.A., Boston University
M.B.A., San Diego State University

Cater, Judy (1975) Interim Dean, Social and Behavioral Sciences
A.B., Mt. Holyoke College
M.S., Simmons College
M.A., University of San Diego

Cathcart, Scott T. (2007) Athletics
B.S., California State University, Fresno
M.Ed., Azusa Pacific University

Cecere, Rosemarie L. (2001) Communications
B.A., University of California, San Diego
M.A., The New School

Chakkanakuzhi, Mathews T. (1995) Mathematics
B.S., California State University, Los Angeles
M.S., California State University, Los Angeles

Chamberlin, Craig S. (2001) Mathematics
A.A., Palomar College
B.S., Northern Arizona University
M.S., Northern Arizona University

Chen, Lihe (1997) English as a Second Language
B.A., Xiamen University
M.A., University of Arizona

Cheung, Wing H. (2007) Earth, Space, and Aviation Sciences
B.A., Unversity of California, Los Angeles
M.S., Indiana University
M.P.A., Indiana University

Clark, Mark D. (1996) Mathematics
B.S., California State University, Long Beach
M.S., California State University, Long Beach

Clegg, Daniel K. (1995) Mathematics
B.A., California State University, Fullerton
M.A., University of California, Los Angeles

Cnossen, Jon (1977) Physical Education/Athletics
B.A., Stanislaus State College
M.A., United States International University

Conway, M. Jayne (1990) Health Services
B.S., Saint Xavier College
M.S., Saint Xavier College

Coppedge, Mark III (2006) Trade and Industry
A.S., Coleman College
B.S., Coleman College
Vocational Credential

Corpora, Angelo J. (1990) Business Administration
A.A., College of DuPage
B.A., Lewis University
M.A., Antioch University - Antioch School of Law

Cory, Abbie L. (2006) English
B.A., California State University, Long Beach
M.A., University of California, San Diego
Ph.D., University of California, San Diego

Cosentino, Donna D. (2004) Communications
A.A., Palomar College

Craw, Lorene E. (2003) Child Development Center
A.A., Imperial Valley College
Child Development Master Teacher Permit

Crouthamel, Steven J. (1976) American Indian Studies
B.A., University of the Pacific
M.A., University of North Carolina

Cuaron, Berta C. (2003) Assistant Superintendent/ Vice President, Instructional Services
B.A., California State University, San Bernardino
M.A., Northern Arizona University

Davis, Haydn N. (1981) Behavioral Sciences
B.A., University of Washington
M.A., San Diego State University
Ph.D., United States International University

deBarros, Philip L. (1994) Behavioral Sciences
A.B., Stanford University
A.M., Stanford University
M.A., University of California, Los Angeles
Ph.D., University of California, Los Angeles

Deegan, Robert P. (2005) Superintendent/President
B.A., San Francisco State University
M.A., San Francisco State University

Deen, Patricia A. (1991) Earth, Space, and Aviation Sciences
B.S., California Lutheran College
M.S., San Diego State University

DeMaris, Patricia J. (1988) Counseling
B.A., Rutgers University/Douglas College
M.S., San Diego State University

Dixon, Patricia Ann (1971) American Indian Studies
B.A., University of California, San Diego
M.A., University of California, San Diego

Dodson, Kenneth J. (2008) Graphic Communications
A.A., Palomar College

Dolan, Judith L. (1981) Business Administration
B.E., Wisconsin State University
M.A., Pepperdine University

Dowd, Bonnie Ann (1990) Assistant Superintendent/ Vice President, Finance and Administrative Services
B.B.A., University of Houston
M.B.A., National University, San Diego
Ed.D., University of San Diego

Dozier, Deborah S. (2001) American Indian Studies
A.B., San Diego State University
M.F.A., Syracuse University
M.A., University of California, Riverside
Ph.D., University of California, Riverside

Drinan, Mary Ann (1990) Economics, History & Political Science
B.A., Clarke College
M.S., Fort Hays Kansas State University

Durrant, George D. (1971) Art
B.A., San Diego State University
M.A., San Diego State University

Duvall, James E. (1988) Design and Consumer Education
Certification, West Valley Occupational Center

Early, Daniel F. (2004) Physical Education/Athletics
A.A., Palomar College
B.A., California State University, Long Beach
M.Ed., Azusa Pacific University

Early, Joseph D. (1996) Physical Education/Athletics
B.S., San Diego State University
M.Ed., Azusa Pacific University

Eckhart, Judith G. (1994) Nursing Education
B.S., Wichita State University, Kansas
M.S., California State University, Los Angeles
Ed.D., University of San Diego

Eighmey, James D. (2007) Behavioral Sciences
B.G.S., University of Kansas
M.A., San Diego State University

Eldridge, Mark W. (1981) Physical Education/Athletics
B.A., Long Beach State College
M.A., United States International University

Ellis, Mona J. (2006) Mathematics
B.S., New Mexico Institute of Mining and Technology
M.A., University of California, San Diego

Emerick, Ryan D. (2005) Behavioral Sciences
B.A., University of Richmond
M.A., University of California, Riverside
M.A., King's College London, University of London
Ph.D., University of California, Riverside

Esteban, Jose L. (1989) Economics, History & Political Science
B.A., California State University, Fullerton
M.A., California State University, Fullerton
M.A., San Diego State University

Estes, Matthew T. (2005) Economics, History & Political Science
B.A., San Diego State University
M.A., San Diego State University

Faas, Lisa J. (2006) Communications
A.A., Edison College
B.A., National University

Falcone, Kelly A. (2006) Physical Education/Athletics
B.S., San Diego State University
M.A., San Diego State University

Farquharson, Hope R. (2007) Nursing Education
B.S., California State University, Dominguez Hills
M.S., California State University, Dominguez Hills

Faulkner, Margaret M. (2002) Performing Arts
B.F.A., University of Arizona
M.F.A., University of Iowa
Ph.D., Texas Woman's University

Feddersohn, Richard C. (1985) Trade and Industry
B.A., California State University, Long Beach

Fererro, Jennifer M. (2004) Child Development
B.A., University of Colorado
M.S., San Diego State University

Ferges, Ralph E. (1980) Life Sciences
B.S., University of California, Davis
M.A., California State University, Fresno

Fernandez, Jose J. (1997) Counseling
B.A., Willamette University
M.S., Western Oregon State College

Finkenthal, Daniel F. (1997) Physics and Engineering
B.S., University of Lowell
Ph.D., University of California, Berkeley

Finton, Michael J. (1999) Emergency Medical Education
A.D.N., Santa Ana College

Flanagan, Chantal M. (2003) Nursing Education
B.S.N., Trenton State College
M.S., University of California, San Francisco

Forney, Craig A. (2007) Behavioral Sciences
B.A., Fresno Pacific University
M.A., The University of Chicago
Ph.D., The University of Chicago

Forney, Marlene G. (2008) Library
B.A., Purdue University
A.M.L.S., University of Michigan, Ann Arbor

Forsyth, David T. (1981) Business Administration
B.B.A., North Texas State
M.B.A., San Jose State
M.A., National University
M.P.A., Jacksonville State University

Fowler, Grace (2000) Graphic Communications
B.M., Friends University
M.S., National University

Francis, Candice A. (1973) Dean, Mathematics and the Natural and Health Sciences
B.A., University of California, Riverside
M.S., University of Houston
Ed.D., University of San Diego

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B.S., Madurai Kamaraj University
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O'Doherty, Fergal C. (1997) English
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B.A., University of California, Los Angeles
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M.A., University of Iowa
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Zabzdyr, Jennifer L. (2004) Chemistry
A.A., Pasadena City College
B.S., California Polytechnic State University, San Luis Obispo
Ph.D., University of California, Riverside

Zacharias, Gary L. (1990) English
A.B., San Diego State University
M.A., San Diego State University

Zolliker, Susan B. (2000) English
B.A., Michigan State University
M.A., San Diego State University

Emeriti

The years indicate first year appointed to the Palomar College staff and the year of retirement.

Administrative

Altmann, Esther Nesbin* **1947-1977**
Library and Dean

Backart, Dr. Kent E. **1962-1992**
Chemistry, Aeronautics, Dean of Student Support Programs

Bergman, Virgil L.* **1955-1979**
Speech, Drama, and Dean of Instruction

Boehm, Dwight* **1958-1965**
English and Dean of Arts and Languages

Boggs, Dr. George R. **1985-2000**
District Superintendent and President

Bowen, James T. **1973-2000**
Counseling, Director of Student Activities

Brown, Walter F. L.* **1970-1983**
Dean of Vocational Education

Brubeck, Howard R.* **1953-1978**
Music, Dean of Humanities

Burton, Robert L.* **1957-1977**
Dean of Student Personnel Services

Chappie, Dr. David A. **1973-1996**
Assistant Superintendent/Vice President, Student Services

Coutts, Charles A.* **1946-1979**
Dean of Science, Technology and Business

Garlow, Dr. Katheryn **1974-2007**
Dean of Languages and Literature

Huber, Dr. Frederick R.* **1964-1977**
District Superintendent and President

Jackson, Gene M.* **1965-2002**
Dean of Arts and Languages

Kilman, Dr. Theodore **1962-1993**
Journalism, Assistant Superintendent/Vice President of Instruction

Scheidt, Dr. Omar H. **1977-1990**
Mathematics, Cooperative Education, Business Education and District Superintendent and President

Schettler, Dr. John D.* **1956-1983**
Assistant Superintendent/Vice President, Business Services

Schwerdtfeger, Dr. Patrick M. **1974-2007**
Dean of Arts, Media, Business and Computing Systems

Singh, Inder J.* **1972-1994**
Dean of Counseling, Guidance, and Career Development

Woods, John F. **1973-2007**
Director of Athletics

Woodward, Dr. Robert M. **1959-1984**
Business Education and Dean of Extended Day

Faculty

Ahrend, Justus W.* **1964-1982**
Photography

Alperson, Jay R. **1977-2010**
Behavioral Sciences

Anderson, Yvonne D. **1989-2009**
Economics, History, and Political Science

Archer, Dr. Roy R. **1963-2003**
Economics, History, and Political Science

Armstrong, Wayne P. **1966-2003**
Life Sciences

Arnsan, Daniel C. **1980-2003**
Library/Media Center

Ashbrook, Vernon L. "Buddy"* **1968-1993**
Drama

Aufmann, Richard N. **1972-2000**
Mathematics

Austin, George L.* **1967-1990**
Trade and Industry

Ayers, Mildred L. **1964-1984**
Physical Education

Baldwin, Russell W.* **1965-1988**
Art

Barker, Vernon C. **1964-1990**
Mathematics

Barlow, John* **1953-1977**
Art

Barnet, Harry N.* **1975-1990**
Chemistry

Baum, Phillip **1982-1998**
Extended Opportunity Programs and Services

Bedford, William L.* **1961-1996**
Physics and Engineering

Bertram, Larry L. **1967-1994**
Trade and Industry

Bleth, Dorothie D. **1977-2000**
Performing Arts

Bliss, Harry E. **1967-1999**
Art

Boehm, Louise K. **1981- 2005**
Art

Bowman, Robert E.* **1953-1981**
Physical Education/Athletics

Boyd, David H. **1976-2008**
Performing Arts

Brink, Celia Ann* **1972-1994**
Social Sciences

Bruington, Neil E. **1979-2003**
Graphic Communications

Burke, Marilyn Crist* **1965-1977**
Foreign Languages

Burns, Dr. Kenneth D. **1977-1999**
Counseling

Campbell, LaVere C. **1966-1984**
Business Education

Carli, Angelo* **1964-1998**
English

Casey, Donnabelle Anne* **1967-1984**
Nursing Education

Chambless, Dr. Beauford* **1966-1983**
Political Science

Chase, Dr. David A **1974-2009**
Performing Arts

Chittock, David H. K. **1970-1986**
Counseling

Ciurczak, Alexis K. **1975-2006**
Library

Clothier, Ruth E.* **1971-1983**
Child Development

Clyne, Kathleen G. **1988-2008**
Nursing Education

Coffman, Harold* **1958-1964**
Psychology

Coleman, Dr. Robert F.* **1969-1992**
English

Colwell, Ramona W. **1971-1995**
Mathematics

Crouch, Stanley **1972-2002**
Physical Education/Athletics

Crowe, Judy A. **1980-2007**
Nursing Education

Cuevas, Aura A. **1972-1998**
English

Curran, Michael A.* **1969-1988**
Physical Education

Dahlin, Raymond D.* **1965-1999**
Speech Communication, Forensics, and ASL

Daniels, James M. **1988-2003**
Mathematics

Davis, Rosemary R. **1974-1996**
Child Development

Dise, Linton John **1972-2008**
Counseling

Disparti, Nicholas **1965-1982**
Industrial Technology

Dixon, Horace H. **1974-1994**
Business Education

Dolan, Thomas C. **1972-1986**
Computer Science

Donahue, Warren D.* **1959-1984**
Mathematics

Dudik, Linda D. **1975-2009**
Economics, History, and Political Science

Eberhart, Judith E. **1973-2004**
Counseling

Ebert, Robert R. **1967-2003**
Life Sciences

Elliott, Fred L.* **1960-1981**
Life Sciences

Ellison, G. Vernon* **1977-1994**
Physical Education

Erickson, John R. **1980-2008**
Foreign Languages

Evans, Martha K. **1976-2010**
World Languages

Farrelly, Joseph R. **1973-2009**
Computer Science and Information Systems

Felton, James J.* **1960-1990**
Business Education

Flores, Adele G.* **1978-2000**
Extended Opportunity Programs and Services

Freeman, Gary M. **1970-1999**
Life Sciences

Fukunaga, Kristeen T. **1975-2005**
Chemistry

Fullerton, Robert E. **1963-1995**
Mathematics

Fulton, Mary B.* **1966-1976**
Nursing Education

Gage, Dr. Maura A. **1981-2009**
Life Sciences

Gardner, Beverly M. **1981-2006**
Counseling

Giardina-Rodgers, Mary Anne **1986-2003**
Child Development

Gibbs, O. Byron **1967-1997**
Counseling, Tutoring Services

Gibson, M. Diane **1965-1999**
English

Gilmour, Andrew D. **1969-1995**
Physical Education/Athletics

Gilson, Robert **1973-2007**
Performing Arts

Golden, Willie L. **1974-1990**
Trade and Industry

Gomez, Carlos Z. **1976-2010**
World Languages

Goodson, Dr. Hulda G. **1977-2000**
Child Development

*Deceased

Gordon, Dr. Joseph F.* **1962-1985**
Social Sciences

Grant, Patricia **1969-1989**
English as a Second Language

Griffin, Susan A. **1979-1999**
Nursing Education

Grisinger, Kenneth* **1954-1966**
Social Sciences

Groschwitz, Edwin A.*. **1967-2003**
Chemistry

Gruber, Abraham **1964-1994**
Behavioral Sciences

Guerra, R. Anthony. **1974-2008**
Multicultural Studies/Behavioral Sciences

Gullette, William T. **1982-2006**
Communications

Gunther, Dr. Margaret L. **1974-2002**
Family and Consumer Sciences

Hafner, Janet R. **1973-1998**
English as a Second Language

Hammond, James D.* **1974-1997**
Counseling

Haney, Ann L. **1966-2003**
Behavioral Sciences

Hankin, J. Frank **1973-1994**
Extended Opportunity Programs and Services

Hankins, Clarice J.* **1971-1990**
Health Services

Hanlen, Charles J. **1971-1999**
Economics, History, and Political Science

Harlow, James M. **1973-1997**
English as a Second Language

Haugen, Nan E. **1974-2004**
Physical Education/Athletics

Hawkes, A. Dana **1973-2000**
Communications

Hawley, Warren S. **1972-1992**
Social Sciences

Hegland, Sheridan N.* **1964-1970**
Social Sciences

Heltzel, Eleanor J.* **1972-1982**
Child Development

Henson, Dr. Lynne **1990-2009**
English as a Second Language

Heyden, Victor* **1957-1984**
Speech/Theatre Arts

Heyne, Adolph* **1946-1969**
Foreign Languages

Hinthorne, Stephen G.* **1968-1985**
Mathematics

Hubbard, Donald J. **1971-1987**
Physical Education/Athletics

Hudgens, Aileen **1962-1990**
Mathematics

Hulbert, James C. **1964-1989**
Art

Humphrey, Thomas R. **1966-2000**
Business Education/Computer Science & Information Systems

Hydock, Joseph H. **1960-1988**
Earth Sciences

Iserman, Carl L.* **1972-1986**
Cooperative Education

Jackson, Russell F. **1974-1990**
Communications

Jeffery, Viola* **1966-1982**
Physical Education/Athletics

Jessop, Nancy M.* **1975-1999**
Life Sciences

Jessop, Raymond E.* **1960-1993**
Physics/Engineering/Chemistry

John, George E. **1981-1995**
Trade and Industry/Regional Occupational Program

Johnson, Jay **1961-1998**
Foreign Languages

Jones, Francis S. **1972-1998**
Art

Keesee, James H.* **1960-1976**
Industrial Technology

Kirby, Stephen D. **1975-2003**
Trade and Industry

Kirk, Charles E. **1988-2009**
Regional Occupational Program

Kline, Nellie I. **1962-1987**
Business Education

Knapp, Lester V.* **1970-1995**
Life Sciences

Kooyman, Melba M. **1985-1998**
Nursing Education

Kratt, John M.* **1976-1993**
Pubic Safety Programs

Kremer, Palmer N.* **1961-1980**
Social Sciences

Landmesser, Jean F. **1972-2002**
Dental Assisting

Larson, Robert W. **1965-1998**
Counselor/Director, Transfer Center

Latulippe, Jerome A. **1971-2000**
Trade and Industry

Law, Dr. Patricia B. **1979-1995**
Child Development

Leahy, John S. **1975-2004**
Business Education

Lee, Loren A. **1980-2009**
Economics, History, and Political Science

Lehr, Martha J. **1968-1985**
Counseling

Levy, Stanley A. **1975-2010**
Reading Services

Luna, James A. **1986-2008**
Counseling

Lusky, Robert F. **1974-1997**
Physical Education/Athletics

Lynds, Arthur L. "Tony" **1967-1997**
Physical Education/Athletics

Mahan, Dr. Harry C.* **1957-1976**
Psychology

Mahoney, Joan M.* **1970-1990**
Nursing Education

Maioroff, Dr. E. Ann **1971-2009**
English

Marrin, Dockin A. **1967-1990**
Physical Education/Athletics

Martinek, Dennis A. **1979-2003**
Business Education/Cooperative Education

Martinie, Francis R.* **1966-1999**
Economics, History, and Political Science

McCormick, Benedict J.* **1970-1990**
English

McFarland, Teri A. **1975-2007**
Physical Education/Athletics

McGilvray, Duncan D. **1970-1996**
Social Sciences

McGuerty, Frank J. **1980-2000**
Cooperative Education

Mendez, Mario J. **1976-2003**
Physical Education

Michaelson, Brian N. **1969-2003**
Computer Science and Information Systems

Miller, Robert T. **1990-2009**
Behavioral Sciences

Miller, Steven W. **1985-2005**
Art

Minnick, William H.* **1972-1990**
Trade and Industry

Monk, Burrill G.* **1958-1970**
Music

Monell, Susan D. **1984-1999**
Counseling

Montiel, Dr. Brenda F. **1974-1998**
Performing Arts

Mortimer, Godfrey G.* **1948-1961**
Physics/Mathematics

Muchow, Richard G. **1977-2000**
Business Education

Murphy, Ruth G.* **1970-1980**
Nursing Education

Musgrove, Susan P. **1991-2010**
Reading Services

Myers, Ward G. "Rusty"* **1953-1973**
Physical Education

Nation, Richard D. **1982-2002**
Mathematics

Newbrough, Michael G. **1975-2004**
Economics, History, and Political Science

Noble, Richard S.* **1966-1981**
Earth Sciences

Norlin, Dr. Richard F.* **1959-1993**
English

Norton, Suzann M. **1990-2010**
Disability Resource Center

Nydegger, Mildred F.* **1971-1981**
Music

Pagakis, Chris N. **1961-1982**
Physical Education/Athletics

Peacock, Richard B. **1966-1997**
Communications

Peixoto, Eduardo J.C. **1974-2010**
World Languages

Pesacreta, George D.* **1974-2003**
Foreign Languages

Petz, Dr. Irene A.* **1953-1980**
Chemistry

Phelps, Roland* **1954-1968**
Journalism

Phillips, Ronald E. **1979-2001**
Chemistry

Piché, Donald R. **1974-2010**
Behavioral Sciences

Pine, Kathy F. **1974-2003**
Physical Education

Poole, Cynthia J. **1967-2003**
Counseling

Pratola, Dr. Daniel J.* **1959-1982**
Foreign Languages

Quintero, Jack C. **1965-2003**
English

Rangel, Jose C. **1974-2006**
Multicultural Studies

Reed, Barry C. **1977-2005**
Art

Reiser, Donna M. **1955-1975**
Physical Education

Rivera, Joel P. **1977-2005**
Foreign Languages

Robertson, Everett T.* **1956-1982**
Industrial Technology

Rogers, Ronna C. **1972-1997**
Child Development Center

Ruzich, Margie L.* **1977-2006**
Child Development

Sager, Gene C. **1971-2003**
Behavioral Sciences

Salomone, William B. **1971-2002**
English

Sanders, Val G. **1968-1998**
Art

Saw, James T. **1973-2002**
Art

Schaeffer, Joseph P. **1976-2007**
Trade and Industry/Regional Occupational Program

Schmidt, Dr. Patricia F. **1973-2003**
Nursing Education

Schnelker, Barbara W. **1974-2001**
Behavioral Sciences

Senge, Carl H.* **1961-1982**
Business Education

Shallcross, Marcia K. **1969-1994**
Business Education

Shiwanov, Ernest **1966-1994**
Chemistry

Souchek, Marilyn M. **1972-2003**
Behavioral Sciences

Stanford, Dr. Joe R. **1966-2003**
Performing Arts

Stevens, Eugene H.* **1948-1977**
Life Sciences

Stevens, Rena V. **1988-2008**
Business Education

Stiller, Irene M. **1979-2010**
Nursing Education

Sugar, Anita **1989-2010**
R.O.P.

Tagg, John R. **1987-2009**
English

Tanner, John D. **1969-2004**
Economics, History, and Political Science

Tatman, Sylvia C. **1977-1998**
Nursing Education

Taupier, C. Andrea **1976-2009**
Life Sciences

Toll, Dr. George B.* **1947-1970**
Business

Tornillo, Louis M. **1977-1997**
Trade and Industry

Toth, Dr. Beverly A. **1974-1998**
Dental Assisting

Tucker, Carl K. **1981-2000**
Trade and Industry

Ulman, Timothy W. **1969-2002**
Foreign Languages

Waterman, Patricia B. **1977-2010**
Physical Education/Athletics

Webb, Betty Jean* **1969-1990**
English

Weld, James H.* **1955-1983**
Music

White, Dr. Rita A.* **1965-1990**
Art

Wiebe, Mack C. **1965-1993**
Cooperative Education

Wiestling, Ronald M. **1969-1990**
Mathematics

Wildenberg, Joseph W.* **1974-1995**
Vocational Programs

Wilhelm, Frederick L. **1968-1988**
Communications

Williams, Barbara F. **1978-2003**
Behavioral Sciences

Williams, Larry J. **1974-1998**
Business Education

Willis, Joseph P.* **1962-1990**
Earth Sciences

Wood, Carolyn C.* **1966-1997**
Library/Media Center

Wood, James M. II **1969-1999**
Physics & Engineering

Worret, Patricia A. **1980-2003**
Nursing Education

Wronski, Susan M. **1975-2007**
Child Development Center

Wunderley, Lois J. **1980-2000**
Behavioral Sciences

Young, John Thomas **1972-2002**
Communications

Zarakov Opie, Dr. Selma D. **1975-1995**
Counseling

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Three-Dimensional Arts
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Journalism
University Studies
Welding Technology
Administration of Justice
Accounting
Programs
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Screen Printing
Preschool Teacher
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Fashion: Buying and Management
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Mathematics
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Glossary of Terms

Academic Renewal: A policy which allows a student to petition to exclude prior substandard course work from their transcript which is not reflective of their current demonstrated ability. Obtain petition from the Counseling Center.

Academic Review Committee: A process by which students can petition to deviate from the College's policies and procedures. Obtain petition from the Counseling Center.

Articulation Agreements: A list of courses offered at Palomar College which are acceptable at transfer universities as equivalent in content (or as acceptable substitutes) to those courses offered by the universities. These lists are available in the Counseling Center and online at http://www.assist.org.

ASSIST: The official internet site (www.assist.org) that contains all articulation agreements between California Community Colleges, the California State University, and the University of California.

Associate in Arts (AA) Degree: Awarded upon completion of course work totaling not fewer than 60 degree applicable units in areas of: a) General Education, b) Major, c) Electives. Must apply by appropriate deadlines.

Associate in Science (AS) Degree: Currently only offered in Nursing. Awarded upon completion of course work totaling not fewer than 60 degree-applicable units in areas of: a) General Education, b) Major, c) Electives. Must apply by appropriate deadlines.

Auditing: To take a course without being graded or receiving credit, available to students by petition only.

Catalog: A book published once a year that governs students' progress toward degrees and certificates and contains course descriptions, programs, requirements, policies and procedures.

Certificate of Achievement (CA): Awarded upon completion of specified course work in a vocational/occupational program.

Certificate of Proficiency (CP): Designed to certify basic workplace competencies and job readiness. Awarded upon completion of specified course work.

Class Schedule: A booklet of class offerings, times, and locations published each term. The class schedule also contains enrollment information, add and drop deadlines, testing dates and times, and other general information.

College-Prep Classes (non-degree appropriate): These courses, principally in the basic skills areas, prepare students to perform satisfactorily in associate and baccalaureate appropriate classes. Students can take no more than 30 units of these courses; they do not apply to the degree.

Continuing Student: One who has attended classes during the previous regular term beyond the drop deadline.

Continuous Enrollment: For enrollment purposes, it is defined as attendance at Palomar College beyond the drop period of each regular term, where letter grades or W's appear on the transcript. For graduation purposes, it is defined as attendance in one semester or two quarters (excluding Summer Session) within a calendar year (January through December) in the CSU, UC, or California CC Systems following initial enrollment at Palomar.

Directed Study: Individual study for advanced students which may include class work, research, or projects that do not fit into the context of regularly scheduled classes. Department chairperson approval required for enrollment.

Educational Plan: A document generated by a student and a Palomar College Counselor that allows the student and institution together to identify the student's educational objectives, and to formulate a method for reaching them.

Full-Time: A study load of 12 or more units per semester. The normal full-time load in Summer is 6 units. Nursing students are considered full-time with 9 units in nursing courses.

General Education (GE) Requirements: Also known as breadth or core requirements, these patterns of courses are designed to expose students to broad areas of knowledge.

Grade Point Average (GPA): Determined by dividing total grade points earned by total academic (A-FW) units attempted.

Grade Points: Points given for academic (evaluative) grades.

A = 4 points	D = 1 point
B = 3 points	F = 0 points
C = 2 points	FW = 0 points per unit of credit

Half-Time: A study load of 6 – 81/2 units per semester.

IGETC (Intersegmental General Education Transfer Curriculum): A general education program that California community college transfer students can use to fulfill all lower-division G.E. requirements at most CSU or UC campuses (see a counselor for exceptions).

Lower Division/Upper Division: In colleges and universities, lower division means freshman and sophomore years and upper division means junior and senior years. Community colleges provide lower division course work for transfer to four-year colleges and universities.

Major: A major is a group of courses related to a defined area of study. All colleges and universities require students to declare and pursue a major.

Noncredit Certificate of Completion (NC): Designed to lead to improved employability or job opportunities. Awarded upon completion of specified course work.

Noncredit Courses: A variety of courses offered with no unit credit. The courses are taught by credentialed instructors and provide remedial, developmental, occupational, and other general educational opportunities to citizens of the community.

Pass/No Pass (P/NP) Grading: Pass/No Pass units are not counted in the GPA. A Pass is earned for coursework equal to a "C" grade or better. A No Pass is earned for coursework equal to a "D" or "F" grade. Pass/No Pass units are used in calculating Progress Probation and Dismissal.

Probation: A warning status that scholastic standards are not being met.

Semester: A 17-week period of class work.

TAG (Transfer Admission Guarantee): Palomar College has TAG programs with seven UC campuses. All of these agreements guarantee admission into the University and some guarantee admission into the major.

Tech Prep: A program in which high school students can earn college credit for certain occupational courses completed at their respective high schools.

Three-Quarter Time: A study load of 9 – 11 1/2 units per semester.

Transcript (of Record): An official copy of the record of classes attempted and/or completed by a student. The transcript is maintained by the Palomar College Records Office and is considered confidential. It may be viewed or released only with permission of the student.

Tuition (Enrollment Fees): A charge for instruction.

Tutor: A person, recommended by faculty as knowledgeable in specified subjects, who is available through Tutoring Services free of charge to work with an enrolled individual in need of special assistance with course work.

Unit of Credit: A credit or semester unit represents one hour of class work per week for one semester. It is expected that most students will spend two hours outside class in preparation for each hour of lecture. Slightly less outside preparation time is expected in laboratory. Three hours of laboratory per week are approximately the equivalent of one unit.

Units Attempted: Credit units in which the student was enrolled beyond the 30% point of any course whether or not a passing grade was earned or the student withdrew from the course before its completion.

Work Experience: A program that combines classroom studies with on-the-job experiences.

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