Accounting (ACCT)

See also Business

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: MD-341

Associate in Science Degrees -
AS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
ACCT 104	Accounting Spreadsheet Concepts	2
ACCT 105	Individual Income Taxes	4
ACCT 107	Taxation of Business Entities	4
ACCT 110	Quickbooks	2
ACCT 115	Sales Tax, Payroll Taxes, and Employee Benefits	2
ACCT 201	Financial Accounting	4
ACCT 202	Managerial Accounting	4
BUS 110	Business Mathematics	3
	or	
MATH 120	Elementary Statistics	4
	or	
MATH 130	Calculus for Business and the Social Sciences	4
BUS 117	Legal Environment of Business	3
BUS 125	Business English	3
	or	
BUS 205	Business Communication	3
TOTAL UNITS		**32 - 33**

Recommended Electives: *BUS 140, 173; CE 100; CSIT 105 or CSIT 120*

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 101	Bookkeeping	3
	or	
ACCT 201	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Concepts	2
ACCT 110	Quickbooks	2
ACCT 115	Sales Tax, Payroll Taxes, and Employee Benefits	2
TOTAL UNITS		**9 - 10**

COURSE OFFERINGS

ACCT 101 Bookkeeping (3)
3 hours lecture
Note: *Not open to students who have completed ACCT 201*
Transfer acceptability: *CSU*
Comprehensive coverage of the basic bookkeeping cycle, including journalizing, posting, worksheet and financial statements. Designed to give practical preparation for bookkeeping positions.

ACCT 104 Accounting Spreadsheet Concepts (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C" in ACCT 101 or ACCT 201, or concurrent enrollment in ACCT 101 or ACCT 201*
Transfer acceptability: *CSU*
Application of fundamental and some intermediate 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 110 QuickBooks (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in ACCT 101, or ACCT 201*
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 201*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.*
Transfer acceptability: *CSU*
Topics in Accounting. See Class Schedule for specific topic offered. Course title will designate subject covered.

See Catalog addendum at http://www.palomar.edu/catalog

ACCT 201 Financial Accounting (4)
4 hours lecture
Transfer acceptability: *CSU; UC*
C-ID ACCT 110
This is the study of accounting as an information system, examining why it is important and how it is used by investors, creditors, and others to make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics.

ACCT 202 Managerial Accounting (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in ACCT 201*
Transfer acceptability: *CSU; UC*
C-ID ACCT 120
This is the study of how managers use accounting information in decision-making, planning, directing operations, and controlling. Focuses on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis in manufacturing and service environments.

ACCT 205 Cost Accounting (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ACCT 202*
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 Science Degrees -
AS 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

Associate in Science for Transfer -
AS-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
- Administration of Justice

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Basic Police Academy

PROGRAMS OF STUDY

Administration of Justice

The field of Administration of Justice is directed toward the prevention, discovery, control and treatment of crimes, criminals, and criminality. This Associate in Science in Administration of Justice for Transfer (A.S.-T.) degree provides a path to students who wish to transfer to a CSU campus in Administration of Justice. The degree allows students to learn the fundamental principles and practices of law enforcement, the court system, and the corrections systems. Students who major in Administration of Justice are preparing for a wide variety of career opportunities in such areas as uniformed police officer, investigation, criminal identification, criminalistics, and corrections.

Pursuant to SB1440, the following completion requirements must be met:

(1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:

(A) The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.

(B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.

(2) Obtainment of a minimum grade point average of 2.0."

ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is not an acceptable grade for courses in the major.

AS-T TRANSFER MAJOR

List A: Program Requirements		
AJ 100	Introduction To Criminal Justice	3
AJ 104	Criminal Law	3
List B: Select 2 courses		
AJ 101	Criminal Evidence	3
AJ 102	Criminal Procedures	3
AJ 103	Community Relations	3
AJ 110	Basic Criminal Investigation	3
AJ 131	Juvenile Justice	3
AJ 210	Basic Crime Scene Forensic Science	3
List C: Select 2 courses		
PSYC 100	Introduction to Psychology 3	
SOC 100	Introduction to Sociology 3	
PSYC/SOC 205	Statistics for the Behavioral Sciences	4
	or	
MATH 120	Elementary Statistics	4
TOTAL UNITS		**18 - 19**

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.S. 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
*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 83	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.S. 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
*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.S. 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
*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.S. 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 93	Basic Police Academy Module III	8
AJ 95B	Basic Police Academy	13
AJ 94A	Basic Police Academy Module IIA	7
AJ 95A	Basic Police Academy Module IA	8.5
AJ 94B	Basic Police Academy Module IIB	7
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*
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*
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.

See Catalog addendum at http://www.palomar.edu/catalog

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*
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*
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 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*
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*
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*
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 93 Basic Police Academy Module III (8)
6½ hours lecture – 6 hours laboratory
Prerequisite: *Admission to the Police Academy*
Equivalent to Module III extended-format training standards as set forth by the Commission on Peace Officer Standards and Training (POST). Covers ethics, the criminal justice system, laws of arrest, search and seizure, custody, firearms, arrest and control, first aid/CPR, and other related police topics. Meets the requirements for appointment as a Level III Reserve Officer.

AJ 94A Basic Police Academy Module IIA (7)
5 hours lecture - 6 hours laboratory
Prerequisite: *Admission to the Police Academy*
AJ 94A and 94B are equivalent to Basic Course Module II extended-format training standards as set forth by the Commission on Peace Officer Standards and Training (POST). Covers property crimes, crimes against persons, policing in the community, firearms, chemical agents, and other related police topics. AJ 94A and 94B meet the requirements for appointment as a Level II Reserve Officer.

AJ 94B Basic Police Academy Module IIB (7)
5 hours lecture - 6 hours laboratory
Prerequisite: *Admission to the Police Academy*
AJ 94A and 94B are equivalent to the Basic Course Module II extended-format training standards as set forth by the Commission on Peace Officer Standards and Training (POST). Covers report writing, cultural diversity and discrimination, preliminary investigation, evidence, crimes in progress, and other related police topics. AJ 94A and 94B meet the requirements for appointment as a Level II Reserve Officer.

AJ 95A Basic Police Academy Module IA (8.5)
7 hours lecture – 4½ hours laboratory
Prerequisite: Admission to the Police Academy
AJ 95A and 95B are equivalent to the Basic Course Module I extended-format training standards as set forth by the Commission on Peace Officer Standards and Training (POST). Covers crimes against children, sex crimes, juvenile law, domestic violence, gang awareness, vehicle pullovers, and other related police topics. AJ95A and 95B meet the requirements for appointment as a full-time peace officer or Level I Reserve Officer.

AJ 95B Basic Police Academy Module IB (13)
8 hours lecture - 15 hours laboratory
Prerequisite: Admission to the Police Academy
AJ 95A and 95B are equivalent to the Basic Course Module I extended format training standards as set forth by the Commission on Peace Officer Standards and Training (POST). Covers emergency management, traffic enforcement and collision investigation, controlled substances, lifetime fitness, arrest and control, vehicle operations, and other related police topics. AJ 95A and 95B meet the requirements for appointment as a full-time peace officer or Level I Reserve Officer.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *May not be taken for Pass/No Pass Grading*
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*
C-ID AJ 110
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*
C-ID AJ 124
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*
C-ID AJ 122
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*
C-ID AJ 160
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*
C-ID AJ 120
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*
C-ID AJ 140
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
Transfer acceptability: *CSU*
Responsibilities, techniques, and methods of police patrol.

AJ 131 Juvenile Justice (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID AJ 220
The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; and 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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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
Transfer acceptability: *CSU*
C-ID AJ 150
Introduces various specialized disciplines including the following: crime lab functions, forensic instrumentation, forensic photography, crime scene processing, drug analysis, hair and fiber analysis, questioned documents, and fingerprint usage.

See Catalog addendum at http://www.palomar.edu/catalog

AJ 211 Fingerprint Identification (3)
3 hours lecture
Transfer acceptability: *CSU*
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.

Africana Studies (AS)

See also Multicultural Studies

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: MD-354
For transfer information, consult a Palomar College Counselor.

COURSE OFFERINGS

AS 100 Introduction to African American Studies (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 115 Introduction to African American 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 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 James Fent for further information.
(760) 744-1150, ext. 2188
Offices: MD-243
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -
AS 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.S. 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	Case Management, 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 Psychology.

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 Case Management, Law and Ethics (3)
3 hours lecture
Note: *Cross listed as PSYC 255/SOC 255*
Transfer acceptability: *CSU*
This course reviews the principles and practice of case management in addiction treatment including the processes of intake, screening, assessment, treatment planning, referral, and documentation. Professional and ethical codes of conduct and behavior are also reviewed and emphasized.

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 Languages

See American Indian Studies and Foreign Languages

American Indian Studies (AIS)

Contact the American Indian Studies Department for further information.
(760) 744-1150, ext. 2425
Office: MD-140
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
AIS 146	American Indian Theatre, Dance and Music	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 161A	Elementary Classical Nahuatl 1A	3
AIS 167A	Elementary Cahuilla IIA	3
AIS 167B	Elementary Cahuilla IIB	3
AIS 266A	Cahuilla IIIA	3
AIS 266B	Cahuilla IIIB	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 U.S. and state political systems and institutions. Includes an examination of tribal government 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 American Indian communities.

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 108A*
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 146 American Indian Theatre, Dance and Music (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the works of Native Americans in theatre, dance and music. Examines how changes in Native and Euro-American pop culture have affected the way in which Native performers represent their art, traditions, and cultural expressions.

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
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 161A Elementary Classical Nahuatl IA (3)
3 hours lecture
Note: *Cross listed as CS 161A*
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.

See Catalog addendum at http://www.palomar.edu/catalog

AIS 161B Elementary Classical Nahuatl IB (3)
3 hours lecture
Note: *Cross listed as CS 161B*
Transfer acceptability: *CSU*
A continuation of AIS/CS 161A that reviews the phonology, morphology, syntax and grammar of the Nahuatl Language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

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 166A Elementary Cahuilla IA (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to the fundamentals of the Cahuilla language, one of the four indigenous languages of San Diego County. Includes a survey of Cahuilla language phonology, morphology, syntax and grammar with special emphasis on culturally relevant terminology.

AIS 166B Elementary Cahuilla IB (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This elementary course is a continuation of AIS 166A and reviews the phonology, morphology, syntax and grammar of the Cahuilla Language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

AIS 167A Elementary Cahuilla IIA (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in AIS 166B*
Transfer acceptability: *CSU; UC*
The first half of the second year of Elementary Cahuilla. Reviews the phonology, morphology, syntax and grammar of the Cahuilla language, with continued emphasis on culturally relevant terminology to increase proficiency in expressing basic concepts both orally as well as in writing.

AIS 167B Elementary Cahuilla IIB (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in AIS 167A*
Transfer acceptability: *CSU; UC*
The second half of the second year of elementary Cahuilla. Reviews the phonology, morphology, syntax and grammar of the Cahuilla Language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 266A Cahuilla IIIA (3)
3 hours lecture
Prerequisite: *AIS 167B*
Transfer acceptability: *CSU; UC*
The first half of the first year of intermediate Cahuilla language and culture, focusing on intermediate-level culturally relevant authentic materials. Emphasis is on developing listening, oral, reading and writing skills in order to acquire proficiency in Cahuilla.

AIS 266B Cahuilla IIIB (3)
3 hours lecture
Prerequisite: *AIS 266A*
Transfer acceptability: *CSU; UC*
The second half of the first year of intermediate Cahuilla. A continuation of the study of the language and culture of the Cahuilla people, focusing on oral, listening, and reading skills. Culturally relevant authentic materials are incorporated to acquire proficiency in Cahuilla. Largely conducted in Cahuilla.

AIS 295 Directed Study in American Indian Studies (1, 2, 3)
3, 6, or 9 hours laboratory
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 Science Degrees -

AS 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.S. 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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
Note: *Corresponds to two years of high school study.*
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*
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*
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 101.

ASL 105 Fingerspelling (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ASL 100*
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*
A general orientation to the Deaf community with an overview of the historical, linguistic, philosophical, psychological, educational and social aspects 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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.

See Catalog addendum at http://www.palomar.edu/catalog

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*
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*
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*
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*
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*
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*
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: MD-140
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 104 American Family and Genealogy (3)
3 hours lecture
Transfer acceptability: *CSU*
Surveys the development of the American family over time with an emphasis of values and identity. The process of genealogical research and documentation is developed in terms of national standards.

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*
C-ID SOCI 150
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: MD-261
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
	or	
*ANTH/AIS 140	The Original Californians	
ANTH 121	Cultural Resource Management	3
*ANTH 297	Special Problems in Archaeology	1
*ANTH 205	Prehistoric Archaeological Excavation	3
TOTAL UNITS		**22**

* Classes marked with an asterisk (*) are transferable for up to 9 units of upper-division credit for the Anthropology major at CSU San Marcos.

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	Prehistoric Archaeological Excavation	
	or	
*ANTH 220	Advanced Archaeological Surveying	3
*ANTH 210	Archaeological Surveying	3
*ANTH 215	Archaeological Laboratory Analysis	3
TOTAL UNITS		**21**

* Classes marked with an asterisk (*) are transferable for up to 9 units of upper-division credit for the Anthropology major at CSU San Marcos.

Archaeology

Provides the student with in-depth training that will enhance employment opportunities as a professional archaeologist as well as providing a solid foundation for a B.A. and advanced degrees in Anthropology/ Archaeology.

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	3
ANTH 130/		
AIS 130 or	Prehistoric Cultures of North America	
*ANTH/AIS 140	The Original Californians	3
*ANTH 205	Prehistoric Archaeological Excavation	3

See Catalog addendum at http://www.palomar.edu/catalog

*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 107	Language and Culture	3
ANTH 125	Evolution, Science & Religion	3
ANTH/AS 126	Cultures of Africa	3
ANTH 135	Magic and Folk Religions	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 197	Topics in Archaeology	1 - 3
ANTH 206	Historical Archaeological Excavation	3
*ANTH 220	Advanced Archaeological Surveying	3
*ANTH 297	Special Problems in Archaeology	1, 2, 3
ANTH 298	Internship in Archaeology	1 - 3
DT/ENGR 101	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
PHOT 130	Digital Darkroom I	3
PSYC/SOC 205	Statistics for the Behavioral Sciences	4
TOTAL UNITS		**35**

* Classes marked with an asterisk (*) are transferable for up to 9 units of upper-division credit for the Anthropology major at CSU San Marcos.

COURSE OFFERINGS

ANTH 100 Introduction to Biological Anthropology (3)
3 hours lecture
Note: *Not open to students with prior credit in ANTH 101*
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
Note: *Not open to students with prior credit in ANTH 101*
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.

ANTH 101 Introduction to Biological Anthropology (4)
3 hours lecture - 3 hours laboratory
Note: *Not open to students with prior credit in ANTH 100 or 100L*
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*
C-ID ANTH 120
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*
C-ID ANTH 150
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 (3)
3 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 197 Topics in Archaeology (1-3)
1 - 3 hours lecture - 3 - 9 hours laboratory
Transfer acceptability: *CSU*
Topics in Archaeological Research. See Class Schedule for specific topic offered. Course title will designate subject covered.

ANTH 205 Prehistoric Archaeological Excavation (3)
1 hour lecture - 6 hours laboratory
Recommended preparation: *ANTH 120*
Transfer acceptability: *CSU*
Training in excavating prehistoric archaeological features. Specialized field techniques for prehistoric archaeology. Archaeological theory as it applies to site interpretation.

ANTH 206 Historical Archaeological Excavation (3)
1 hour lecture - 6 hours laboratory
Transfer acceptability: *CSU; UC*
Training in excavating historic archaeological features. Specialized field techniques in historical archaeology. Archaeological theory as it applies to historic site interpretation.

ANTH 210 Archaeological Surveying (3)
2½ hours lecture - 1½ hours 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)
2½ hours lecture - 1½ hours laboratory
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)
2½ hours lecture - 1½ hours 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)
2½ hours lecture - 1½ hours 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
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
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.

ANTH 298 Internship in Archaeology (1-3)
3-9 hours laboratory
Transfer acceptability: *CSU (pending)*
Supervised internship in a government agency, private firm or museum. The student intern will have the opportunity to participate in the excavation and/or analysis, processing, and documentation of archaeological collections.

Apprenticeship Training (AP)

Acoustical Installer, Carpentry, Drywall/Lather, Electrician, Inside Wireman, Plasterer, Sheet Metal, Sound and Communication Systems, Sound Technician

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2600
Office: AA-135

Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).
- Acoustical Installer
- Carpentry
- Drywall/Lather
- Electrician
- Inside Wireman
- Plasterer
- Sheet Metal
- Sound and Communication Systems Installer
- Sound Technician

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Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Acoustical Installer
- Carpentry
- Drywall/Lather
- Electrician
- Inside Wireman
- Plasterer
- 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 710, 711, 712, 713, or 714. 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.

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP DL/AP PL/ AP AC 701	Orientation	1.5
AP DL/AP PL/ AP AC 702	Safety and Health Certifications	1.5
AP DL/AP PL/ AP AC 703	Printreading	1.5
AP DL/ AP AC 704	Advanced Printreading	1.5
AP AC 705	Acoustical Ceilings	1.5
AP AC 706	Standard Acoustical Grids	1.5
AP AC 707	Suspended Ceilings	1.5
AP AC 708	Soffits	1.5
AP AC 709	Prefab/Sound Panels	1.5
AP AC 710	Concealed/Glue-Up/Staple-Up System	1.5
AP AC 711	Designer and Specialty Trims	1.5
AP AC 712	Metal Pan and Security Systems	1.5
AP AC 715	Drywall Acoustical Ceilings	1.5
AP WE 712	Drywall/Acoustical Work Experience	16
TOTAL UNITS		**35.5**

COURSE OFFERINGS

AP AC 701 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 701/AP PL 701*
An introduction to the Interior Systems program. Safe and proper use of hand tools, power tools, trade related math, beginning print reading and layout as well as safety certifications. Certifications will include scaffold erector/dismantler (welded frame) and low velocity powder actuated tools.

AP AC 702 Safety and Health Certifications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 702/AP PL 702*
Instruction in safety and health training that meets the needs of the Interior Systems industry. Content includes certification in Power Industrial Trucks, Aerial Lift, American Red Cross First Aid / CPR/ AED, and OSHA 10.

AP AC 703 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 703/AP PL 703*
An introduction to the basic visualization skills needed for reading and interpreting construction prints. Demonstration of the significance of views, elevations and the role of specifications as they relate to prints.

AP AC 704 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP AC 703/AP DL 703*
Note: *Cross listed as AP DL 704*
In-depth training for on-the-job print reading situations. Covers advanced layout tasks and solutions to typical construction problems using plans and specifications for commercial construction projects.

AP AC 705 Acoustical Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
Instruction in acoustical ceilings, seismic codes and the theory behind them. Wall molds and trims, ceiling layout and material identification. Students will install ceilings using the technical knowledge and skills.

AP AC 706 Standard Acoustical Grids (1.5)
1 hour lecture - 1½ hours laboratory
Designed with classroom instruction but will focus more on acoustical grid installation such as 2 x 4 and 2 x 2 flat AH@ pattern, radius, gable and diagonal ceilings.

AP AC 707 Suspended Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
Designed with classroom instruction but will focus more on acoustical grid installation such as 2 x 4 and 2 x 2 flat AH@ pattern, radius, gable and diagonal ceilings.

AP AC 708 Soffits (1.5)
1 hour lecture - 1½ hours laboratory
Focus on square and slant faced, tapered, concealed, drywall suspension and sloped soffits.

AP AC 709 Prefab/Sound Panels (1.5)
1 hour lecture - 1½ hours laboratory
Focus on the technical knowledge and skills needed for the installation of prefabricated wall and ceiling panel systems. Acoustical principles and the theory of sound will be discussed.

AP AC 710 Concealed/Glue-Up/Staple-Up System (1.5)
1 hour lecture - 1½ hours laboratory
Instruction in concealed and semi-concealed ceilings and soffits, glue-up and staple-up. Technical knowledge and skills will be demonstrated in assembling these ceilings.

AP AC 711 Designer and Specialty Trims (1.5)
1 hour lecture - 1½ hours laboratory
This course is a more advanced look at specialty and designer trims for grid ceiling systems. Previous knowledge will be applied when laying out and installing straight and curved trims in soffit and light pocket designs, along with clouds, or free floating, trimmed ceilings.

AP AC 712 Metal Pan and Security Systems (1.5)
1 hour lecture - 1½ hours laboratory
Focus on the technical knowledge and skills needed to work with these "high end" products.

AP AC 797 Acoustical Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Topics in Acoustical. See Class Schedule for specific topic offered. Course title will designate subject covered.

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP C 701	Orientation	1.5
AP C 702	Safety and Health Certification	1.5
AP WE 711	Carpentry Work Experience	16
Electives (Select 14 courses)		
AP C 703	Printreading	1.5
AP C 704	Advanced Printreading	1.5
AP C 705	Foundation and Flatwork	1.5
AP C 707	Tilt-Up Panel Construction	1.5
AP C 708	Wall Forming	1.5
AP C 709	Gang Forms/Columns	1.5
AP C 710	Patented Forming Systems	1.5
AP C 712	Column Forms	1.5
AP C 713	Beam and Deck Forming	1.5
AP C 714	Basic Commercial Framing	1.5
AP C 716	Commercial Floor Framing	1.5
AP C 717	Basic Stairs	1.5
AP C 718	Advanced Stairs	1.5
AP C 719	Exterior Finish Details	1.5
AP C 721	Basic Roof Framing	1.5
AP C 723	Basic Metal Framing	1.5
AP C 725	Transit Level/Laser	1.5
AP C 726	Bridge Construction	1.5
AP C 727	Stair and Ramp Forming	1.5
AP C 728	Stair Trim	1.5
AP C 729	Cabinet Millwork and Assembly	1.5
AP C 730	Cabinet Installation	1.5
AP C 735	Molding and Trim	1.5
AP C 736	Plastic Laminates	1.5
AP C 737	Door and Door Frames	1.5
AP C 739	Door and Door Hardware	1.5
AP C 745	Commercial Fixtures	1.5
AP C 747	Basic Suspended Scaffold	1.5
AP C 748	Advanced Suspended Scaffold	1.5
AP C 749	Basic Systems Scaffold	1.5
AP C 750	Intermediate Systems Scaffold	1.5
AP C 751	Advanced Systems Scaffold	1.5
AP C 752	Basic Frame Scaffold	1.5
AP C 753	Intermediate Frame Scaffold	1.5
AP C 754	Advanced Frame Scaffold	1.5
AP C 755	Basic Tube & Clamp Scaffold	1.5
AP C 756	Scaffold in Confined Spaces	1.5
AP C 757	Specialty Scaffold Applications	1.5
AP C 758	Scaffold Reshoring	1.5
AP C 761	Basic Wall Framing	1.5
AP C 764	Abutments	1.5
AP C 770	Green Building and Weatherization	1.5
AP C 771	Intermediate Commercial Framing	1.5
AP C 772	Solar Installer Level I	1.5
AP C 773	Water Treatment Facilities	1.5
AP C 774	Tool and Equipment Applications	1.5
AP C 797	Carpentry Topics	1.5
TOTAL UNITS		**40**

COURSE OFFERINGS

AP C 701 Orientation (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California*
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 702 Safety and Health Certification (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 701*
Covers the safe and appropriate use of scaffolds, aerial lift equipment, and emergency response procedures. Successful students will receive UBC Scaffold Erector and Aerial Lift Operator qualification cards. First Aid and CPR certification will be issued upon successful completion of the American Red Cross training provided.

AP C 703 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
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 704 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 703*
Second of two courses in blueprint reading. Covers foundation prints, commercial prints, residential prints and estimating. Construction specifications will also be covered.

AP C 705 Foundation and Flatwork (1.5)
1 hour lecture - 1½ hours laboratory
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 707 Tilt-Up Panel Construction (1.5)
1 hour lecture - 1½ hours laboratory
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 708 Wall Forming (1.5)
1 hour lecture - 1½ hours laboratory
Introduces the basic techniques of poured-in-place concrete wood form construction. Related safety, math and blueprint reading will be covered.

AP C 709 Gang Forms/Columns (1.5)
1 hour lecture - 1½ hours laboratory
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 710 Patented Forming Systems (1.5)
1 hour lecture - 1½ hours laboratory
Covers the basic knowledge required to use blueprints for the purpose of properly laying out, locating, "leveling," "plumbing," "squaring" and preparing patented forming systems for concrete work/pours. Poured in place, tilt-up and precast above grade level structural concrete work including structural "load bearing" walls, decks and columns.

AP C 712 Column Forms (1.5)
1 hour lecture - 1½ hours laboratory
Presents the formwork types and construction methods for column form installations. Discussions will cover structural significance of column layout, squaring, leveling and plumbing. The course project will include column formwork construction, assembly, and hardware installation tasks. Related safety, math and print-reading will be covered.

AP C 713 Beam and Deck Forming (1.5)
1 hour lecture - 1½ hours laboratory
Introduction to the use of beam and deck forming systems for concrete construction. Students will identify formwork types and installation techniques including calculating materials and setting beam & deck forms. Metal beam forms and capitals will be highlighted. Layout and builders level skills will be used in this class.

AP C 714 Basic Commercial Framing (1.5)
1 hour lecture - 1½ hours laboratory
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 716 Commercial Floor Framing (1.5)
1 hour lecture - 1½ hours laboratory
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 717 Basic Stairs (1.5)
1 hour lecture - 1½ hours laboratory
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 718 Advanced Stairs (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP C 717*
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 719 Exterior Finish Details (1.5)
1 hour lecture - 1½ hours laboratory
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 721 Basic Roof Framing (1.5)
1 hour lecture - 1½ hours laboratory
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 723 Basic Metal Framing (1.5)
1 hour lecture - 1½ hours laboratory
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 725 Transit Level/Laser (1.5)
1 hour lecture - 1½ hours laboratory
Addresses form design, material estimating and problems relative to form construction. Related safety, math and blueprint reading will be covered.

AP C 726 Bridge Construction (1.5)
1 hour lecture - 1½ hours laboratory
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 727 Stair and Ramp Forming (1.5)
1 hour lecture - 1½ hours laboratory
Designed to teach the various techniques used to form stairs and ramp structures. Related safety, math and blueprint reading will be covered.

AP C 728 Stair Trim (1.5)
1 hour lecture - 1½ hours laboratory
Covers how various trims are utilized to finish stair construction design features. Product styles, characteristics, applications, and installation methods are included in the discussions. The tools and techniques for cutting and installing selected trim types are presented and practiced throughout the training.

AP C 729 Cabinet Millwork and Assembly (1.5)
1 hour lecture - 1½ hours laboratory
Introduction to basic cabinet construction. Blueprint and finish schedules will be covered as well as related safety and math.

AP C 730 Cabinet Installation (1.5)
1 hour lecture - 1½ hours laboratory
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 735 Molding and Trim (1.5)
1 hour lecture - 1½ hours laboratory
Introduction to various moldings and the specific installation techniques of each. Blueprint, finish schedules, related safety and math will also be covered.

AP C 736 Plastic Laminates (1.5)
1 hour lecture - 1½ hours laboratory
Covers manufactured product styles, characteristics, and countertop applications. Materials used as countertop and backsplash substrates are discussed. Construction procedures and installation methods are presented, and students will apply the techniques to produce and install a plastic laminate countertop with backsplash.

AP C 737 Door and Door Frames (1.5)
1 hour lecture - 1½ hours laboratory
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 739 Door and Door Hardware (1.5)
1 hour lecture - 1½ hours laboratory
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 745 Commercial Fixtures (1.5)
1 hour lecture - 1½ hours laboratory
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 747 Basic Suspended Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
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 748 Advanced Suspended Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
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 749 Basic Systems Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
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 750 Intermediate Systems Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Includes application of cantilevered design methods used to safely erect platforms extending beyond a typical scaffold base arrangement. Students will apply methods and erect equipment using custom configurations for jobsites.

AP C 751 Advanced Systems Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Covers the advanced techniques and procedures required when constructing system scaffolds used in industrial boiler installation or repair applications. Students will apply common solutions for bridging voids and following equipment contours to construct the selected industrial simulated scaffold projects.

AP C 752 Basic Frame Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Covers terminology, components and the basic techniques and procedures associated with frame scaffold components. Construction practices and safety considerations will be a major focus of the class. Students will choose and erect equipment using basic configurations suitable for jobsites where this type of scaffold is most frequently utilized.

AP C 753 Intermediate Frame Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Introduction of obstacle and height problem solving into frame scaffold project, to include equipment or overhead restrictions. Students will identify and erect equipment using custom configurations for jobsites.

AP C 754 Advanced Frame Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Covers the advanced techniques and procedures associated with ground supported frame scaffold, in particular the use of scaffold components for construction of various heavy-duty (industrial) elevated platforms. 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 755 Basic Tube and Clamp Scaffold (1.5)
1 hour lecture - 1½ hours laboratory
Covers the basic techniques and procedures associated with tube and clamp scaffold components and erection methods. Construction practices and safety considerations will be a major focus of the class. Students will learn to choose and erect equipment using custom configurations for jobsites.

AP C 756 Scaffold in Confined Spaces (1.5)
1 hour lecture - 1½ hours laboratory
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 757 Specialty Scaffold Applications (1.5)
1 hour lecture - 1½ hours laboratory
Includes specialty scaffold applications focusing on ramps, chutes and mobile towers suitable for light and heavy duty use. Students will learn the characteristics of commercial and industrial scaffold construction. Selected projects will introduce the techniques and procedures used for access/egress, debris handling, and maintenance scaffolds.

AP C 758 Scaffold Reshoring (1.5)
1 hour lecture - 1½ hours laboratory
Present students with the modified principles and techniques for the use of shoring equipment in a re-shore application. The importance of uniform loading and alignment of muti-tower/tandem tower configurations will be covered. Students will identify and erect scaffold equipment using three types of configurations suitable for scaffold re-shoring purposes.

AP C 761 Basic Wall Framing (1.5)
1 hour lecture - 1½ hours laboratory
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 764 Abutments (1.5)
1 hour lecture - 1½ hours laboratory
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 770 Green Building and Weatherization (1.5)
1 hour lecture - 1½ hours laboratory
Energy efficiency, "green" building methods, rating systems and commissioning will be discussed. Products, techniques, and weatherizing procedures used for new buildings and retro-fit buildings will be included in hands-on activities. Practices and devises used to maintain healthy air quality during construction will be a focus of the training.

AP C 771 Intermediate Commercial Framing (1.5)
1 hour lecture - 1½ hours laboratory
Enhances basic wall framing theory, and wall construction techniques are applied at increased skill levels. A review of basic wall framing and floor plans used for job planning, design recognition, and materials lists is included. Students will layout and detail wall plates for locating basic wall components and door openings. Instruction includes measuring skills, mathematical principles, wall assembly and installation procedures, and detail how structural connections are made.

AP C 772 Solar Installer Level 1 (1.5)
1 hour lecture - 1½ hours laboratory
Covers the design and function of several types of solar installation. The methods, sequences and procedures for foundation layout, elevation, and assembly for solar construction will be presented. Jobsite safety, print interpretation, material identification, and use of system devices and testing criteria will be stressed. Students will construct three selected solar installation projects.

AP C 773 Water Treatment Facilities (1.5)
1 hour lecture - 1½ hours laboratory
Instruction in the detailing, layout, and construction of concrete formwork and waterstop used in water treatment facilities. The terms, components, materials, building techniques and procedures will be presented. The class project includes keyway, panel, waterstop, head wall and wing wall construction.

See Catalog addendum at http://www.palomar.edu/catalog

AP C 774 Tool & Equipment Applications (1.5)
1 hour lecture - 1½ hours laboratory
This course promotes hand/power tool and equipment skill development for various construction applications. Scaffold building, aerial lift safety, and operating procedures will be covered. Upon successful completion, students will be issued United Brotherhood of Carpenters (UBC) Aerial Lift and Scaffold Erector-Welded Frame Qualification Cards.

AP C 797 Carpentry Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or 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*
Topics in Carpentry. See Class Schedule for specific topic offered. Course title will designate subject covered.

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP DL/AP PL/ AP AC 701	Orientation	1.5
AP DL/AP PL/ AP AC 702	Safety and Health Certifications	1.5
AP DL/AP PL/ AP AC 703	Printreading	1.5
AP DL/ AP PL 705	Basic Lathing	1.5
AP DL 706	Framing Ceilings and Soffits	1.5
AP DL 707	Basic Metal Framing	1.5
AP DL 708	Framing Suspended Ceilings	1.5
AP DL 709	Framing Curves and Arches	1.5
AP DL 710	Light Gage Welding - AWS - A	1.5
AP WE 712	Drywall/Acoustical Work Experience	16
Electives (Select 3 courses)		
AP DL/ AP AC 704	Advanced Printreading	1.5
AP DL 711	Light Gage - L.A. City Certification	1.5
AP DL 712	Basic Hand Finishing	1.5
AP DL 713	Drywall Acoustical Ceilings	1.5
AP DL 714	Door/Door Frames	1.5
AP DL/ AP PL 715	Exterior Insulation Finish Systems (EIFS)	1.5
AP DL/ AP PL 716	Firestop/Fireproofing Procedures	1.5
AP DL 717	Free-Form Lathing	1.5
AP DL 718	Automatic Finishing Tools	1.5
AP DL 720	Drywall Installation/Finish Trims	1.5
AP DL 721	Advanced Hand Finishing	1.5
AP DL 722	Advanced Automatic Finishing Tools	1.5
AP DL 724	Ceiling and Soffit Finishing	1.5
AP DL 729	Advanced Metal Framing	1.5
AP DL 797	Drywall Lather Topics	.5-4
TOTAL UNITS		**34**

COURSE OFFERINGS

AP DL 701 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 701/ AP AC 701*
An introduction to the Interior Systems program. Safe and proper use of hand tools, power tools, trade related math, beginning print reading and layout as well as safety certifications. Certifications will include scaffold erector/dismantler (welded frame) and low velocity powder actuated tools.

AP DL 702 Safety and Health Certifications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 702/ AP AC 702*
Instruction in safety and health training that meets the needs of the Interior Systems industry. Content includes certification in Power Industrial Trucks, Aerial Lift, American Red Cross First Aid / CPR/ AED, and OSHA 10.

AP DL 703 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 703/ AP AC 703*
An introduction to the basic visualization skills needed for reading and interpreting construction prints. Demonstration of the significance of views, elevations and the role of specifications as they relate to prints.

AP DL 704 Advanced Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP DL/AP AC 703*
Note: *Cross listed as AP AC 704*
In-depth training for on-the-job print reading situations. Covers advanced layout tasks and solutions to typical construction problems using plans and specifications for commercial construction projects.

AP DL 705 Basic Lathing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 705*
Presents the basic lathing methods used in the industry for exterior/interior installations. Students will use the skills presented to complete a lathing project as part of this course.

AP DL 706 Framing Ceilings and Soffits (1.5)
1 hour lecture - 1½ hours laboratory
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 707 Basic Metal Framing (1.5)
1 hour lecture - 1½ hours laboratory 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 708 Framing Suspended Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
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 709 Framing Curves and Arches (1.5)
1 hour lecture - 1½ hours laboratory
Provides instruction in framing methods for curves and arches and their related structural limitations. Students will use the skills presented to complete a framing project that includes curves and arches as part of this course.

AP DL 710 Light Gage Welding - AWS - A (1.5)
1 hour lecture - 1½ hours laboratory
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 711 Light Gage - L.A. City Certificate (1.5)
1 hour lecture - 1½ hours laboratory
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 712 Basic Hand Finishing (1.5)
1 hour lecture - 1½ hours laboratory
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 713 Drywall Acoustical Ceilings (1.5)
1 hour lecture - 1½ hours laboratory
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 714 Door/Door Frames (1.5)
1 hour lecture - 1½ hours laboratory
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 715 Exterior Insulation Finish Systems (EIFS) (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 715*
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 716 Firestop/Fireproofing Procedures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP PL 716*
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 717 Free-Form Lathing (1.5)
1 hour lecture - 1½ hours laboratory
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 718 Automatic Finishing Tools (1.5)
1 hour lecture - 1½ hours laboratory
Advanced instruction in blueprints, finish schedules, and machine parts identification, as well as proper use, assembly and breakdown of tools.

AP DL 720 Drywall Installation/Finish Trims (1.5)
1 hour lecture - 1½ hours laboratory
Instruction in the basics of gypsum board application and finish trims.

AP DL 721 Advanced Hand Finishing (1.5)
1 hour lecture -1½ hours laboratory
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 722 Advanced Automatic Finishing Tools (1.5)
1 hour lecture - 1½ hours laboratory
Instruction in the proper methods and sequences of the "bazooka," flat boxes, nail spotters and angle boxes.

AP DL 724 Ceiling and Soffit Finishing (1.5)
1 hour lecture - 1½ hours laboratory
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 729 Advanced Metal Framing (1.5)
1 hour lecture - 1½ hours laboratory
Review of basic metal framing and detailed procedures for framing curved, serpentine, and elliptical non load bearing partitions.

AP DL 797 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 and/or 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*
Topics in Drywall/Lather. See Class Schedule for specific topic offered. Course title will designate subject covered.

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP E 701	Electrical Trade/Industry/DC/Conduit	4
AP E 702	Electrical Theory/Practice/Blueprint Reading	4
AP E 703	Inductance/Capacitance Theory	4
AP E 704	Transformers/Code Calculations/Conduit	4
AP E 705	Electronic/Industrial Blueprints	4
AP E 706	Grounding/Electrical Services/Connection	4
AP E 707	Motor Control/Pilot Devices/Starters	4
AP E 708	Digital Electronics	4
AP E 709	Mgmt/Alarms/Testing/Wiring	4
AP E 710	Programmable Logic Controllers	4
AP WE 713	Electrician Work Experience	16
TOTAL UNITS		**56**

COURSE OFFERINGS

AP E 701 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.*
Orientation to the electrical industry; introduction to the electrical code fundamentals of wiring methods, fastening devices, electrical conductors, circuits, and voltage.

AP E 702 Electrical Theory, Practice and Blueprint Reading (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 701*
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 703 Inductance and Capacitance Theory and Codeology (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 702*
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 704 Transformers and Code Calculations, Conduit Bending and Blueprints (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 703*
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 705 Introduction to Electronics and Industrial Blueprints (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 704*
Introduction to basic electronics including examination of semiconductor devices, current and voltage manipulation, applications, and blueprint reading.

AP E 706 Grounding, Electrical Services, and Transform Three-Phase Connections (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 705*
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 707 Electrical Motor Control, Pilot Devices, Starters and Relays (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 706*
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 708 Digital Electronics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 707*
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 709 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 708*
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 710 Programmable Logic Controllers (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP E 709*
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 797 Electrical Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or 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*
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, San Diego, CA 92123. Telephone (858) 569-6633, ext. 111.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP IW 701	Introduction to the Electrical Trade	4
AP IW 702	Electrical Theory, Practice and Blueprint Reading	4
AP IW 703	Inductance and Capacitance Theory	4
AP IW 704	Transformer, Motors, and Motor Controls	4
AP IW 705	Special Electrical Systems	4
AP IW 706	Specialized Electrical Applications	4
AP WE 713	Electrician Work Experience	16
Electives (Select 16 units)		
AP IW 713	Electrical Project Supervision	4
AP IW 714	Electrical Certification Preparation	4
AP IW 716	Photovoltaics	4
AP IW 725	Building Automation Systems	4
AP IW 726	Electrical Construction Practices	4
AP IW 797	Inside Wireman Topics	2 - 4
TOTAL UNITS		**56**

COURSE OFFERINGS

AP IW 701 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.*
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 702 Electrical Theory, Practice and Blueprint Reading (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 701*
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 703 Inductance and Capacitance Theory (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 702*
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 704 Transformer, Motors, and Motor Controls (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 703*
Study of real-world application of transformer, motor and motor control concepts utilizing extensive hands-on labs and demonstrations. Students work in foremenled 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 705 Special Electrical Systems (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 704*
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 706 Specialized Electrical Applications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 705*
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 713 Electrical Project Supervision (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 706*
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 714 Electrical Certification Preparation (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 706*
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 716 Photovoltaics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 706*
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 725 Building Automation Systems (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 706*
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. This course allows students to practice the technical skills required to successfully install, commission, and verify operation of a wide variety of advanced components, such as photosensors, occupancy sensors, digital dimming networked and wireless control systems, programmable time clocks, and emergency lighting controls. In addition, it comprehensively addresses the requirements, regulations, products and strategies which will enable electricians to master successful, expert, and professional customer relations, installation, and maintenance of Electric Vehicle (EV) and Plug-in Hybrid Electric Vehicle (PHEV) infrastructure.

AP IW 726 Electrical Construction Practices (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP IW 706*
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 797 Inside Wireman Topics (2 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP DL/AP PL/ AP AC 701	Orientation	1.5
AP DL/AP PL/ AP AC 702	Safety and Health Certifications	1.5
AP DL/AP PL/ AP AC 703	Printreading	1.5
AP DL/ AP PL 705	Basic Lathing	1.5
AP PL 706	Basic Plastering	1.5
AP PL 707	Exterior Plastering	1.5
AP PL 708	DOT and Screed Techniques	1.5
AP PL 709	Interior Plastering	1.5
AP PL 710	Finish Applications	1.5
AP PL 711	Ornamental Plastering	1.5
AP PL/ AP DL 715	Exterior Insulation Finish Systems (EIFS)	1.5
AP PL/ AP DL 716	Firestop/Fireproofing Procedures	1.5
AP PL 717	Plastering Equipment Application	1.5
AP PL 718	Plastering Equipment	1.5
TOTAL UNITS		**21**

COURSE OFFERINGS

AP PL 701 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 701/ AP AC 701*
An introduction to the Interior Systems program. Safe and proper use of hand tools, power tools, trade related math, beginning print reading and layout as well as safety certifications. Certifications will include scaffold erector/dismantler (welded frame) and low velocity powder actuated tools.

AP PL 702 Safety and Health Certifications (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 702/ AP AC 702*
Instruction in safety and health training that meets the needs of the Interior Systems industry. Content includes certification in Power Industrial Trucks, Aerial Lift, American Red Cross First Aid / CPR/ AED, and OSHA 10.

AP PL 703 Printreading (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 703/ AP AC 703*
An introduction to the basic visualization skills needed for reading and interpreting construction prints. Demonstration of the significance of views, elevations and the role of specifications as they relate to prints.

AP PL 705 Basic Lathing (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 705*
Presents the basic lathing methods used in the industry for exterior/interior installations. Students will use the skills presented to complete a lathing project as part of this course.

AP PL 706 Basic Plastering (1.5)
1 hour lecture - 1½ hours laboratory
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 707 Exterior Plastering (1.5)
1 hour lecture - 1½ hours laboratory
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 708 DOT and Screed Techniques (1.5)
1 hour lecture - 1½ hours laboratory
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 709 Interior Plastering (1.5)
1 hour lecture - 1½ hours laboratory
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 710 Finish Applications (1.5)
1 hour lecture - 1½ hours laboratory
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 711 Ornamental Plastering (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP PL 710*
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 715 Exterior Insulation Finish Systems (EIFS) (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 715*
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 716 Firestop/Fireproofing Procedures (1.5)
1 hour lecture - 1½ hours laboratory
Note: *Cross listed as AP DL 716*
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 PL 717 Plastering Equipment Application (1.5)
1 hour lecture - 1½ hours laboratory
Instruction in the materials, application methods and techniques for operating a plaster pump. Students will complete a three-coat work application to industry standards. Emphasis on proper pump set-up, washout and maintenance.

AP PL 718 Plastering Equipment (1.5)
1 hour lecture - 1½ hours laboratory
Terminology, components and operating procedures for plastering equipment and machinery. Machine maintenance, safety, troubleshooting procedures, limits of operation and communication practices will be covered. Students will inspect and properly set up and clean a plastering pump.

AP PL 797 Plasterer Topics (.5–4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or 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*
Topics in Plasterer. See Class Schedule for 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP SM 701	Core I	4
AP SM 702	Core II	4
AP SM 703	Core III	4
AP SM 704	Core IV	4
AP SM 705	Sheet Metal Welding	3
AP SM 706	Plans & Specifications	4
AP SM 709	Foreman and Project Management Training	4
AP SM 710	Architectural Application	4
AP SM 711	HVAC I	4
AP SM 712	HVAC II	4
AP WE 710	Sheet Metal Work Experience	16
TOTAL UNITS		**55**

COURSE OFFERINGS

AP SM 701 Core I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *Indentured apprentice to the San Diego Sheet Metal Joint Apprenticeship and Training Committee*
An introduction to the basic principles, processes, drawings, materials and practices used in the sheet metal industry.

AP SM 702 Core II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 701*
A continuation of basic sheet metal processes as well as an introduction to simple sheet metal forming processes.

AP SM 703 Core III (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 702*
An introduction to intermediate sheet metal processes demonstrating job layout, architectural details and construction techniques with problems of unusual complexity and difficulty.

AP SM 704 Core IV (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 703*
A continuation of intermediate processes with problems of unusual difficulty and complexity.

AP SM 705 Sheet Metal Welding (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 704*
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 706 Plans and Specifications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 705*
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 709 Foreman and Project Management Training (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 712*
Overview of the knowledge, skills and abilities required to effectively perform as a foreman and project manager in the sheet metal industry.

AP SM 710 Architectural Application (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 709*
Overview of the knowledge, skills, and abilities of advanced architectural project performance.

AP SM 711 HVAC I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 706*
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 712 HVAC II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SM 711*
Designed to build on the principles of basic HVAC system design and installation. Students will develop a better understanding of how a modern HVAC system is designed and functions. Field installation, plans and specifications, commissioning, project management and basic LEED principles will also be covered.

AP SM 797 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 and/or 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*
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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP SC 701	Intro to Sound/Communication Trade Industry	4
AP SC 702	Electrical Theory and Practices DC	4
AP SC 703	Electrical Theory and Practices AC	4
AP SC 704	Semiconductor Electronics	4
AP SC 705	Intro to Digital Electronics and Signaling Devices	4
AP SC 706	Management/Alarms/Codes/Circuits	4
AP WE 713	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, San Diego, CA 92123. Telephone: (858) 569-6633, extension 111.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
AP SC 701	Intro to the Sound/Communication Trade Industry	4
AP SC 702	Electrical Theory and Practices DC	4
AP SC 703	Electrical Theory and Practices AC	4
AP SC 704	Semiconductor Electronics	4
AP SC 705	Introduction to Digital Electronics	4
AP SC 706	Management/Alarms/Codes/Circuits	4
AP SC 707	Life Safety and Security System Applications	4
AP SC 708	Specialized Systems and Supervision Techniques	4
AP WE 713	Electrician Work Experience	16
TOTAL UNITS		**48**

COURSE OFFERINGS

AP SC 701 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.*
Introduction to the sound and communication industry, electrical code, fundamentals of wiring methods, fastening devices, electrical conductors, circuits, voltage and data communication.

AP SC 702 Electrical Theory and Practices DC (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 701*
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 703 Electrical Theory and Practices AC (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 702*
Study of apprenticeship, electrical inductance, capacitance and reactance, including grounded conductors, branch circuits, transformer principles, RCL circuits and filters.

AP SC 704 Semiconductor Electronics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 703*
Study of solid-state electronic theory and components, diodes, transistors, SCR, triacs, diacs, IC amplifiers and op-amps.

AP SC 705 Introduction to Digital Electronics and Signaling Devices (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 704*
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 706 Management/Alarms/Codes/Circuits (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 705*
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 707 Life Safety and Security System Applications (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 706*
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 708 Specialized Systems and Supervision Techniques (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AP SC 707*
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 797 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 and/or 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.*
Topics in Sound and Communication Systems Installer. See Class Schedule for specific topic covered. Course title will designate subject covered.

Work Experience (AP WE)

Students may earn a maximum of 16 units in AP Work Experience.

AP WE 710 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*
Supervised on-the-job training in the Sheet Metal Trade.

AP WE 711 Carpentry Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Pass/No Pass grading only*
Supervised on-the-job training in the Carpentry trade.

AP WE 712 Drywall/Acoustical Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Pass/No Pass grading only*
Supervised on-the-job training in the Interior Systems Trade.

AP WE 713 Electrician Work Experience (4)
12 hours laboratory
Prerequisite: *Indentured apprentice to a designated Joint Apprenticeship and Training Committee*
Note: *Pass/No Pass grading only*
Supervised on-the-job training in the Electrician trade.

Arabic (ARAB)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: H-201

COURSE OFFERINGS

ARAB 101 Arabic I (5)
5 hours lecture - 1 hour laboratory
Note: *Not open to students with credit for ARAB 101B; corresponds to two years of high school study.*
Transfer acceptability: *CSU; UC*
This course is the first semester of 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. Course combines in-class instruction and practice with self-paced study in the World Languages Laboratory. This beginning-level course is for students with no previous coursework in Arabic.

ARAB 101A Arabic IA (3)
3 hours lecture
Note: *Covers the first half of first semester Arabic; not open to students with credit for ARAB 101*
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; not open to students with credit for ARAB 101; corresponds to two years of high school study.*
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 102 Arabic II (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in ARAB 101or two years of high school Arabic*
Transfer acceptability: *CSU; UC*
Note: *Not open to students with credit for ARAB 102B*
This course is the second semester of Arabic. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction and practice with self-paced study in the World Languages Laboratory.

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; not open to students with credit for ARAB 102*
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; not open to students with credit for ARAB 102*
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 201 Arabic III (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in ARAB 102 or three years of high school Arabic*
Transfer acceptability: *CSU; UC*
Note: *Not open to students with credit for ARAB 201B*
This course is the third semester of 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. Course combines in-class instruction with self-paced study in the World Languages Laboratory. Class is largely conducted in Arabic.

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; not open to students with credit for ARAB 201*
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; not open to students with credit for ARAB 201*
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 Education Department for further information.
(760) 744-1150, ext. 2349
Office: P-8A

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
- Architectural Drafting
- Architecture

Certificates of Achievement -
- Architectural Drafting
- Architecture
- Eco-Building Professional

PROGRAMS OF STUDY

Architecture

This coursework prepares students for transfer into a university architectural program. Emphasis is on current architectural and construction practices, fundamental design skills, sustainable building guidelines, and transfer preparation. Students should review specific course requirements and transfer agreements with their architectural instructor and transfer counselor. General education course requirements such as mathematics, physics, etc. will vary depending upon the specific university program.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ARCH 105	Basic Architectural Drafting	3
ARCH 120	Architectural History	3
	or	
ARCH 121	Multicultural Architectural History	3
ARCH 135	Architectural Materials and Methods of Construction	4
ARCH 144	Architectural Drawing and Color	4
ARCH 145	Architectural Delineation and Pictorial Drawing	4
ARCH 155	Architectural Theory	3
ARCH 215	Architectural Design Fundamentals I	5
ARCH 216	Architectural Design Fundamentals II	5
TOTAL UNITS		**31**

Students should review specific course requirements and transfer agreements with their architectural instructor and transfer counselor. General education course requirements such as mathematics, physics, etc. will vary depending upon the specific university program.

Architectural Drafting

Prepares students for employment as a design/production drafter in the field of architecture.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ARCH 105	Basic Architectural Drafting	3
ARCH 135	Architectural Materials and Methods of Construction	4
ARCH 144	Architectural Drawing and Color	4
ARCH 145	Architectural Delineation and Pictorial Drawing	4
ARCH 150/ ID 150	Computer Aided Drafting for Designers (CADD)	3
ARCH 160	Environmental Architecture and Design	4
ARCH 200	Advanced Computer Aided Architectural Drafting	4
ARCH 202	Introduction to Revit Architecture	3
TOTAL UNITS		**29**

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		Units
ARCH 135	Architectural Materials and Methods of Construction	4
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		**19**

Recommended Electives: GEOG 120, MATH 60

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*
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*
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 129 Basic Architectural Drafting with Auto CAD (3)
1½ hours lecture - 4½ hours 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.

ARCH 135 Architectural Materials and Methods of Construction (4)
3 hours lecture - 3 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
Transfer acceptability: *CSU; UC*
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: *ID/ARCH 150*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC*
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 and SketchUP software as a color rendering tool. Abstract architectural design concepts will also be explored.

ARCH 150 Computer Aided Drafting for Designers (CADD) (3)
1½ hour lecture - 4½ hours laboratory
Note: *Cross listed as ID 150*
Transfer acceptability: *CSU*
Introduction to computer aided drafting for architects and interior designers, to include two and some three-dimensional drawing, blocks, draw and modify design tools, rendering, barrier free design, and architectural floor plan layouts.

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 not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC*
Introduction to the theory and application of bio-climate adaptive architectural design in small scale buildings. Includes 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 196 Special Problems in Architecture (1, 2, 3)
½, 1, or 1½ hours lecture - 1½, 3, or 4½ hours laboratory
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU; UC - credit determined by UC upon review of course syllabus*
Designed to enrich the student's experience within the Architecture program and is of a research or special project nature. Content to be determined by the need of the student under signed contract with the instructor.

ARCH 200 Advanced Computer Aided Architectural Drafting (4)
2 hours lecture - 6 hours laboratory
Recommended Preparation: *ARCH 105 and ARCH/ID 150*
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
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*
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*
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 Science Degrees -
AS 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

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
- Pictorial Arts - Emphasis in Painting
- 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 (Select five courses)		Units
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	1
TOTAL UNITS		**13 – 15**

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.S. DEGREE MAJOR

Program Requirements		
ART 104	Design and Composition	3
ART 166	History of Art II - Survey of Western Art	3
ART 200	Color Theory	3
ARTI 100	Concept Sketching	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
ARTI 246	Digital 3D Design and Modeling	3
	Final Art Portfolio Review	0
Electives (Select 6-7 units)		
ARTI 247	Digital 3D Design and Animation	3
ARTI 248	Digital 3D Design and Sculpture	3
ARTI 220	Illustration II, Digital Techniques	3
ART 120	Foundations of Life Drawing	3
PHOT 100	Elementary Film and Darkroom Photography	3
BMGT 105	Small Business Management	3
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**36 - 37**

Graphic Design A.S. 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.S. DEGREE MAJOR

Program Requirements		Units
ART 104	Design and Composition	3
ART 120	Foundations of Life Drawing	3
ART 166	History of Art II	3
ART 200	Color Theory	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 100	Concept Sketching	3
ARTI 210	Illustration I	3
ARTI 220	Illustration II, Digital Techniques	3
ARTI 246	Digital 3D Design and Modeling	3
	Final Art Portfolio Review	0

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Electives (Select 3 units)		
ART 121	Intermediate Life Drawing	3
ART 125	Introduction to Portraiture	3
ART 235	Watercolor Painting I	3
ARTD 100	Graphic Design I	3
ARTI 247	Digital 3D Design and Animation	3
BMGT 105	Small Business Management	3
TOTAL UNITS		**36**

Illustration A.S. 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.S. 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 141	Digital Imaging/Photoshop II	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
Electives (Select two courses)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 248	Digital 3D Design and Sculpture	3
DT/ENGR 103	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
GCIP 150	3D Product Development and Marketing	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 100	History of Multimedia	3
ENTT/DBA 120	Digital Television Production	3
TOTAL UNITS		**29 – 30**

Emphasis in Multimedia Design

A.S. 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
GC/ MCS 115	Graphics and Media: A Multicultural Perspective	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 101	Multimedia I	3
GCMW 201	Multimedia II	3
GCMW 204	Motion Graphics/Multimedia	3
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 140	Digital Imaging/Photoshop I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCMW 100	History of Multimedia	3
GCMW 102	Web Page Layout I	3
GCMW 203	Web Multimedia	3
MUS 180	Computer Music I	3
TOTAL UNITS		**30**

Interactive Media Design A.S. Degree or Certificate of Achievement is also listed in Drafting Technology and in Graphic Communications - Multimedia and Web.

Pictorial Arts - Emphasis in Painting

This program is designed to serve as preparation for transfer to a four-year college or university, as well as enable the student to acquire skills in producing marketable fine art for gallery exhibition and commissions, or to enter into the commercial area.

The required courses for this degree transfer as lower division credits into participating CSU programs.

Transfer students are encouraged to consult Assist.org and four-year college or university catalogs for specific requirements, as well as see a Palomar College counselor.

A.A. DEGREE MAJOR

Program Requirements		
ART 102	Foundations of Drawing	3
ART 104	Design and Composition	3
ART 105	Three-Dimensional Form and Design	3
ART 165	History of Art I - Survey of Western Art	3
ART 120	Foundations of Life Drawing	3
ART 200	Color Theory	3
ART 220	Introduction to Painting	3
ART 166	History of Art II - Survey of Western Art	3
ART 106	Life Painting	3
ART 235	Watercolor Painting I	3
Electives (select 6 units)		
ART 125	Introduction to Portraiture	3
ART 103	Intermediate Drawing	3
ART 121	Intermediate Life Drawing	3
ART 221	Painting	3
ART 236	Watercolor Painting II	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 210	Illustration I - Rendering Techniques	3
ARTI 220	Illustration II, Digital Techniques	3
TOTAL UNITS		**36**

Three-Dimensional Arts

Programs are designed to enable the student to acquire skills in producing fine art for gallery and museum 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 104	Design and Composition	3
ART 105	3-Dimensional Form and Design	3
ART 135	Ceramics I	3
ART 136	Ceramics II	3
ART 137	Pottery Production	3
	or	
ART 138	Ceramic Surface Decoration	3
	or	
ART 266	Ceramic Sculpture II	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 250	Ceramics III	3
ART 265	Ceramic Sculpture I	3
	Final Art Portfolio Review	0
Electives (Select 6 units)		
ART 140	Foundry Techniques in Sculpture I	3
ART 156	Glass Casting I	3
ART 255	Foundry Technique in Sculpture II	3
ART 260	Sculpture I	3
ART 278	Glass Casting II	3
ART 160	Glassblowing/Glassforming I	3
ART 261	Sculpture II	3
TOTAL UNITS		**36**

Emphasis in Crafts

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Foundations of Drawing	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 Film and Darkroom Photography	3
TOTAL UNITS		**42**

Emphasis in Glass

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Foundations of Drawing	3
ART 105	3-Dimensional Form and Design	3
ART 156	Glass Casting	3
ART 160	Glassblowing/Glassforming I	3
ART 165	History of Art I	3
ART 166	History of Art II	3
ART 280	Glassblowing/Glassforming II	3
ART 290	Glassblowing/Glassforming III	3
	Final Art Portfolio Review	0
Electives (Select 4-6 units)		
ART 135	Ceramics I	3
ART 136	Ceramics II	3
ART 140	Foundry Techniques in Sculpture I	3
ART 260	Sculpture I	3
ART 261	Sculpture II	3
ART 275	Stained Glass II	3
ART 278	Glass Casting II	3
TOTAL UNITS		**33**

Emphasis in Jewelry and Metalsmithing

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Foundations of Drawing	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
TOTAL UNITS		**42**

Emphasis in Sculpture

A.A. DEGREE MAJOR

Program Requirements		Units
ART 101	Methods and Materials	3
ART 102	Foundations of Drawing	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

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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/Glassforming I	3
ART 205	Indirect Metal Forming	3
ART 255	Foundry Techniques/Sculpture II	3
TOTAL UNITS		**42**

COURSE OFFERINGS

Individual courses are not repeatable. State Regulations (Title 5, Sections 55040-55041) also limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Art have limitations on the number of times a student may enroll. Specific information about enrollment limitations for ART classes is available at http://www.palomar.edu/schedule/restrictions.htm

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)
1½ hours lecture - 4½ hours laboratory
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 Foundations of Drawing (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
C-ID ARTS 110
Introduction to principles, elements, and practices of drawing, employing a wide range of subject matter and drawing media. Focus on perceptually based drawing, observational skills, technical abilities, and creative responses to materials and subject matter.

ART 103 Intermediate Drawing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 102*
Transfer acceptability: *CSU; UC*
C-ID ARTS 205
Exploration of artistic concepts, styles, and creative expression related to intermediate-level drawing, focusing on complex subject matter and concepts using a variety of drawing mediums, techniques, and methodologies. Builds on fundamental drawing skills to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to drawing.

ART 104 Design and Composition (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
C-ID ARTS 100
Introduction to the concepts, applications, and historical references related to two-dimensional art and composition, including the study of the basic principles and elements of line, shape, texture, value, color and spatial illusion. Development of a visual vocabulary for creative expression through lecture presentations, studio projects, problem solving, and written assignments.

ART 105 Three-Dimensional Form and Design (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
C-ID ARTS 101
Basic instruction in sculptural forms and structures. Charts the development of spacial relations from point to line to plane to volume to complex forms and materials. A variety of media is explored.

ART 106 Life 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 Foundations of Life Drawing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in Art 102*
Transfer acceptability: *CSU; UC*
C-ID ARTS 200
ntroduction to drawing the human figure from observation using a wide variety of drawing media and techniques. Topics include an introduction to human anatomy and the historical and contemporary roles of figure drawing in the visual arts. Students in this course will learn both descriptive and interpretive approaches to drawing the figure.

ART 121 Intermediate Life Drawing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 120*
Transfer acceptability: *CSU; UC–Credit Limitations - Credit for only one attempt*
An advanced investigation of the human figure as the primary subject of composition in historical and contemporary art.
Developed for the advanced painting or illustration majors to aid in the preparation of entry portfolios required for admittance to specialized private four year institutions.

ART 125 Introduction to Portraiture (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 102*
Transfer acceptability: *CSU; UC*
Introduction to portraiture. Special emphasis is placed on the historical and contemporary role of portraiture in art. Techniques range from traditional approaches to expressive application of drawing and painting media.

ART 135 Ceramics I (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
An introduction to basic forming techniques in clay and various surface treatments.

ART 136 Ceramics II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 135*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 135*
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 (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ART 135, 136, and 250*
Transfer acceptability: *CSU*
A study of ceramic surface treatments and decorative techniques.

ART 139 Raku Techniques (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ART 135, 136, and 250*
Transfer acceptability: *CSU*
Exploration of the raku ceramic process and related earthenware decorative techniques.

ART 140 Foundry Techniques in Sculpture I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 105*
Transfer acceptability: *CSU*
Theory and practice in casting skills using foundry techniques.

ART 145 Design in Mixed Media (3)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ART 104*
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)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 150*
Transfer acceptability: *CSU*
Exploration of manipulation of metal and surface decoration including stone setting.

ART 155 Stained Glass I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 104*
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 156 Glass Casting I (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
This is a beginning level glass casting class. The course will address technical approaches and artistic applications of glass using kilnforming processes of casting, fusing, and slumping.

ART 160 Glassblowing/Glassforming I (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
An introductory course exploring creative applications and potential of glass as a means for artistic expression. Through hands-on material/process and artistic research students will gain an understanding of glassblowing and glassforming as an artist's medium.

ART 163 Arts of Asia (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the visual arts from China, Southeast Asia, India, Japan and Korea, from the prehistoric to the present. Students will gain an understanding of the major monuments of Asian art within their historical, social, religious, and political frameworks.

ART 164 Arts of Africa, Oceania and the Americas (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID ARTH 140
A survey of the visual arts from Africa, Oceania and the Americas, from the prehistoric to the present. Students will gain an understanding of the major monuments of African, Oceanic, and South, Central, and North American art within their historical, social, religious, and political frameworks.

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.

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ART 197B Topics in Art – Painting (3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Short and extended term lecture workshops or laboratory courses in various specialized aspects of glass.

ART 197D Topics in Art – Ceramics (1-3)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 Theory (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
C-ID ARTS 270
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 150 or 260*
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)
3 hours laboratory
Transfer acceptability: *CSU*
The study of techniques used in drawing and painting from both nude and costumed models.

ART 220 Introduction to Painting (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 and 200, or concurrent enrollment in ART 102 and 200*
Transfer acceptability: *CSU; UC*
Introduction to principles, elements, and practices of painting. Focus on exploration of painting materials, perceptual skills and color theory, paint mixing and technique, as well as creative responses to materials and subject matter.

ART 221 Painting (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 220*
Transfer acceptability: *CSU; UC*
Advanced projects in painting concepts and techniques with concentration on individual creative progress and development in the context of art historical, contemporary and non-Western traditions and approaches.

ART 235 Watercolor Painting I (3)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 235*
Transfer acceptability: *CSU; UC*
Advanced work in watercolor media.

ART 250 Ceramics III (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 136*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 140*
Transfer acceptability: *CSU*
Advanced theory and practices in casting skills using foundry techniques.

ART 260 Sculpture I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 and 105, or concurrent enrollment in ART 102 and 105*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 260*
Transfer acceptability: *CSU; UC*
Advanced projects in the concept and creation of original sculpture.

ART 265 Ceramic Sculpture I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 102 or 104 or 105, and ART 135*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 265*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 151*
Transfer acceptability: *CSU*
Continued exploration of the manipulation of metal. Advanced projects in jewelry and metalsmithing.

ART 275 Stained Glass II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 155*
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 278 Glass Casting II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *ART 156*
Transfer acceptability: *CSU; UC*
Intermediate level course provides students with a deeper understanding of glass casting and kilnforming processes. Builds knowledge and techniques to develop individual artistic sensibilities with kiln glass.

ART 280 Glassblowing/Glassforming II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ART 160*
Transfer acceptability: *CSU*
Intermediate level creative exploration and research in fine art applications of hot and cold glass forming techniques.

ART 290 Glassblowing/Glassforming III (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *ART 280*
Transfer acceptability: *CSU*
An advanced level course exploring creative applications of glass as a professional practice. Emphasis is placed on honing skills and techniques for producing one-of-a-kind objects and production processes. Through hands-on experience, students will gain a deeper understanding of glassblowing and cold glassforming processes for developing unique vessels and sculpture. Provides information on presentation and documentation of glass art relevant to building a portfolio.

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*
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 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*
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 Science Degrees -

AS 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.S. DEGREE MAJOR

Program Requirements

ART 104	Design and Composition	3
ART 166	History of Art II - Survey of Western Art	3
ART 200	Color Theory	3
ARTI 100	Concept Sketching	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
ARTI 246	Digital 3D Design and Modeling	3
	Final Art Portfolio Review	0

Electives (Select 6-7 units)

ARTI 247	Digital 3D Design and Animation	3
ARTI 248	Digital 3D Design and Sculpture	3
ARTI 220	Illustration II, Digital Techniques	3
ART 120	Foundations of Life Drawing	3
PHOT 100	Elementary Film and Darkroom Photography	3
BMGT 105	Small Business Management	3
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**36 - 37**

Graphic Design A.S. Degree Major is also listed in Art.

COURSE OFFERINGS

Individual courses are not repeatable. State Regulations (Title 5, Sections 55040-55041) also limit the number of of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Art – Design have limitations on the number of times a student may enroll. Specific information about enrollment limitations for Art – Design classes is available at http://www.palomar.edu/schedule/restrictions.htm

ARTD 100 Graphic Design I (3)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ARTD 100*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ARTD 100*
Recommended preparation: *ARTD 150*
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)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ARTD 150*
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)
1½ hours lecture - 4½ hours laboratory
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.

Art - Illustration (ARTI)

Contact the Art Department for further information.
(760) 744-1150, ext. 2302
Office: D-14

Associate in Science Degrees -

AS 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.S. DEGREE MAJOR

Program Requirements		Units
ART 104	Design and Composition	3
ART 120	Foundations of Life Drawing	3
ART 166	History of Art II	3
ART 200	Color Theory	3
ARTD 150	Digital Concepts and Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 100	Concept Sketching	3
ARTI 210	Illustration I	3
ARTI 220	Illustration II, Digital Techniques	3
ARTI 246	Digital 3D Design and Modeling	3
	Final Art Portfolio Review	0
Electives (Select 3 units)		
ART 121	Intermediate Life Drawing	3
ART 125	Introduction to Portraiture	3
ART 235	Watercolor Painting I	3
ARTD 100	Graphic Design I	3
ARTI 247	Digital 3D Design and Animation	3
BMGT 105	Small Business Management	3
TOTAL UNITS		**36**

Illustration A.S. Degree Major is also listed in ART.

COURSE OFFERINGS

Individual courses are not repeatable. State Regulations (Title 5, Sections 55040-55041) also limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Art – Illustration have limitations on the number of times a student may enroll. Specific information about enrollment limitations for Art – Illustration classes is available at
http://www.palomar.edu/schedule/restrictions.htm

ARTI 100 Concept Sketching (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Visual concept development through dynamic sketching, ranging from preparatory to presentation drawings. Included is the study of perspective and drawing of mechanical and natural forms and environments by the use of line and value. Emphasis is placed on the progressive development of visual ideas.

ARTI 210 Illustration I - Rendering Techniques (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ARTI 100*
Transfer acceptability: *CSU*
Content 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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ARTI 210*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in ARTI 220*
Transfer acceptability: *CSU*
Course work 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)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ARTD 150*
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)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *ARTD 220*
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.

ARTI 248 Digital 3D Design and Sculpture (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Concepts and techniques of digital sculpting using ZBrush software. The course will provide an understanding of high detail polygon modeling and the use of mapping techniques to transfer detail to low polygon models.

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 Science Degrees -
AS 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
The Planetarium is part of the Earth, Space, and Aviation Sciences Department at Palomar College. Several types of planetarium programs are offered for the community including school programs for area elementary and secondary schools. The planetarium also offers evening shows throughout each month, open to students of Palomar College and the general public. For further information, visit www.palomar.edu/planetarium or contact the planetarium at planetarium@palomar.edu or (760) 744-1150, ext. 2833.

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.S. 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*
An introduction to the science of astronomy and the nature of the universe. Topics include observation and movements of celestial bodies, exploration of celestial phenomena, the physics of light, and the nature of stars and galaxies.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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 Department for further information.
(760) 744-1150, Ext. 2460
Office: O-10

The intercollegiate athletics program at Palomar College is one of the most comprehensive and diverse among the California Community Colleges, featuring 22 varsity sport programs and over 450 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, sand volleyball, 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.

Prospects for Palomar College intercollegiate athletic teams may not participate in an official practice or competition, nor be issued equipment or apparel from athletic equipment management without departmental verification of the following items:

1. Current and active full-time enrollment in good standing at Palomar College. (Full-time enrollment defined as enrollment in a minimum of 12 semester units, nine (9) of which must be in academic course work leading to a certificated degree and/or transfer to the four-year level.
2. Qualification of CCCAA athletic and academic eligibility standards.
3. Satisfactory physical examination by a physician (medical doctor) approved by Palomar College.
4. Health insurance evaluation by the Palomar College Athletic Training Staff.
5. Participate in the Palomar College Athletic Academic Advisement Program which includes:
   a. Establishment of an Individual Education Plan by October 15th for Fall-sport athletes and by March 15th for Spring-sport athletes.
   b. Assessment of academic course progress conducted each semester.

INTERCOLLEGIATE ATHLETIC COURSE OFFERINGS

Students enrolled in an Athletic and Competitive Sport are limited to 175 contact hours per year in Kinesiology courses that focus on conditioning or skill development for that respective sport. Specific information about enrollment limitations for Kinesiology classes is available at http://www.palomar.edu/schedule/restrictions.htm

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 (1, 2)
3 or 6 hours laboratory
Prerequisite: *Enrollment subject to audition*
Note: *This is a TBA class and will require travel away from the college on weekends and other dates*
Designed to teach the fundamentals of cheerleading. Explores 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)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides women with the opportunity to develop advanced skills and strategies in intercollegiate softball which will be applied to competitive situations.

ACS 110 Intercollegiate Basketball (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides men and women with the opportunity to develop advanced skills and strategies in intercollegiate basketball which will be applied to competitive situations.

ACS 115 Intercollegiate Golf (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides students with the opportunity to develop advanced skills and strategies in intercollegiate golf which will be applied to competitive situations.

ACS 120 Intercollegiate Tennis (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides men and women with the opportunity to develop advanced skills and strategies in intercollegiate tennis which will be applied to competitive situations.

ACS 125 Intercollegiate Soccer (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides men and women with the opportunity to develop advanced skills and strategies in intercollegiate soccer which will be applied to competitive situations.

ACS 130 Intercollegiate Volleyball (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides men and women with the opportunity to develop advanced skills and strategies in intercollegiate volleyball which will be applied to competitive situations.

ACS 135 Intercollegiate Swimming and Diving (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE 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)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides men and women with the opportunity to develop advanced skills and strategies in intercollegiate water polo which will be applied to competitive situations.

ACS 145 Intercollegiate Football (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides students with the opportunity to develop advanced skills and strategies in intercollegiate football which will be applied to competitive situations.

ACS 150 Intercollegiate Wrestling (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides students with the opportunity to develop advanced skills and strategies in intercollegiate wrestling which will be applied to competitive situations.

ACS 155 Intercollegiate Baseball (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides students with the opportunity to develop advanced skills and strategies in intercollegiate baseball which will be applied to competitive situations.

ACS 160 Intercollegiate Cross Country (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units*
Provides men and women with the opportunity to develop advanced skills and strategies in intercollegiate cross country which will be applied to competitive situations.

ACS 165 Intercollegiate Track and Field (2)
175 instructional hours.
Transfer acceptability: *CSU; UC - max credit combined with KINE 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 180 Intercollegiate Sand Volleyball (3)
9 hours laboratory
Transfer acceptability: *CSU; UC*
Provides women with the opportunity to develop advanced skills and strategies in intercollegiate sand volleyball 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU; UC - max credit combined with KINE activity courses, 4 units.*
Topics in Athletics and Competitive Sports. See Class Schedule for specific topic offered. Course title will designate subject covered.

Auto Body (AB)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-102A

AB 50 Auto Body Repair I (3)
(Formerly AT 50)
1½ hours lecture - 4½ hours laboratory
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.

AB 51 Auto Body Repair II (3)
(Formerly AT 51)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *AB 50*
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.

AB 55 Auto Refinishing I (3)
(Formerly AT 55)
1½ hours lecture - 4½ hours laboratory
Introduction to auto refinishing. Preparation of auto surfaces for refinishing: taping, cleaning, and sanding. Refinishing auto surfaces: sanding, application of primers and paint.

AB 56 Auto Refinishing II (3)
(Formerly AT 56)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *AB 55*
Skill development in automotive refinishing techniques, including base-coat, clear-coat application; color matching concepts; and identification, prevention and correction of painting problems. New products, techniques, and trends will be covered.

AB 97 Auto Body Repair/Auto Refinishing Topics (.5 - 4)
(Formerly AT 97)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Topics in auto body repair and auto refinishing. See Class Schedule for specific topic offered. Course title will designate subject covered.

AB 105 Chassis Restoration and Assembly (3)
(Formerly AT 150)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AT 100*
Transfer acceptability: *CSU*
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.

AB 110 Body Restoration and Assembly (3)
(Formerly AT 155)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in AB 50*
Transfer acceptability: *CSU*
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.

Automotive Technology (AT)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-102A

Associate in Science Degrees -
AS 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.S. 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 170	Auto Repair Shop Experience	2
AT 220	Advanced Automotive Transmissions	3
IT/WELD 108	Technical Mathematics	3
AB 50	Auto Body Repair I	3
	or	
WELD 100	Welding I	3
TOTAL UNITS		**27**

Auto Collision Repair

This program will prepare students for an entry level position in the automotive collision repair industry.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
AB 50	Auto Body Repair I	3
AB 51	Auto Body Repair II	3
AB 55	Auto Refinishing I	3
AB 56	Auto Refinishing II	3
IT/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
AB 105	Chassis Restoration and Assembly	3
AB 110	Body Restoration and Assembly	3
AT 170	Auto Repair Shop Experience	2
WELD 100	Welding	3
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**21**

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.S. 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/WELD 108	Technical Mathematics	3
Electives (Select 6-7 units)		
AT 100	Auto Maintenance and Minor Repair	3
AT 165	Automotive Air Conditioning	2
AT 170	Auto Repair Shop Experience	2
DMT 130	Medium-Duty Diesel Engine Tune-Up	4
	or	
DMT 105	Heavy-Duty Diesel Tune-Up and Engine 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.S. 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/WELD 108	Technical Mathematics	3
Electives (Select 4 units)		
AB 50	Auto Body Repair I	3
AT 100	Auto Maintenance and Minor Repair	3
AT 115 and	Automotive Fuel Injection and Fuel Systems	3
AT 115L	Automotive Fuel Systems Computer Training Lab	1
AT 165	Automotive Air Conditioning	2
AT 170	Auto Repair Shop Experience	2
WELD 100	Welding I	3
CE 100	Cooperative Education	2, 3, 4
TOTAL UNITS		**33**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
The various testing and machining operations involved in an automotive machine shop. Areas covered include cylinder head service and repair, connecting rod service, cylinder boring and honing, crankshaft service, and various other automotive machining and measuring techniques.

AT 130 Automotive Brakes (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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 160 Associated Studies in Automotives (3)
3 hours lecture
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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 170 Auto Repair Shop Experience (2)
6 hours laboratory
Transfer acceptability: *CSU*
The student gains valuable skill development in the maintenance, repair and diagnosis in automotive technology. The class runs in a similar format to an actual repair shop where students service cars supplied by the Palomar community.

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)*
Transfer acceptability: *CSU*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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.

See Catalog addendum at http://www.palomar.edu/catalog

AT 220 Advanced Automotive Transmissions (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in AT 120*
Transfer acceptability: *CSU*
Advanced specialized training in automatic transmissions currently in use in General Motors vehicles with an emphasis on the 3T40 transaxle.

AT 225 Automotive Engine Rebuilding (3)
2 hours lecture - 4 hours laboratory
Transfer acceptability: *CSU*
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 Science Degrees -

AS 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.S. 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 Communication	3
ECON 101	Principles of Economics (Macro)	3
ECON 102	Principles of Economics (Micro)	3
Elective Courses (Select 15 units minimum)		
ACCT 201 and	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Concepts	2
AVIA 106	Commercial Pilot Ground School	3
AVIA 107	Instrument Pilot Ground School	3
AVIA 145	Glass Cockpits and GPS Navigation	1
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	4
PHYS 120	General Physics	4
PHYS 121	General Physics	4
CE 100	Cooperative Education	1, 2, 3, 4
TOTAL UNITS		**33**

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.S. 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 120	Aviation Weather	3
AVIA 145	Glass Cockpits and GPS Navigation	1
TOTAL UNITS		**23**

*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)
1 hour lecture - 3 hours 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)
1 hour lecture - 3 hours 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)
1 hour lecture - 6 hours 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 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 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.

Biology (BIOL)

Contact the Life Sciences Department for further information.
(760) 744-1150, ext. 2275
Office: NS-207A

Associate in Science Degrees -

AS 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

Provides intensive lower division preparation for pursuing advanced studies in the Biological Sciences leading towards a Bachelor's Degree and beyond.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

BIOL 200	Foundations of Biology I	5
BIOL 201	Foundations of Biology II	5
CHEM 110	General Chemistry	3
CHEM 110L	General Chemistry Laboratory	2

Group One (Select a minimum of 1 unit)

BIOL 114L	Ecosystem Biology (Laboratory)	1 - 2
BIOL 195A	Field Studies in Natural History	1 - 3
BIOL 195B	Field Studies in Ecology	1 - 3
BOT 195	Field Study of Native Plants	1 - 3
ZOO 195D	Field Study of Birds	1 - 3

Group Two (Select a minimum of 16 units)

BOT 100	General Botany	4
	or	
BOT 101	General Botany Lecture	3
	and	
BOT 101L	General Botany Laboratory	1
BIOL 110	Human Genetics	3
BIOL 114	Ecosystem Biology (Lecture)	3
BIOL 118	General Ecology (Lecture)	3
BIOL 118L	General Ecology (Laboratory)	1
BIOL 130	Marine Biology	4
	or	
BIOL 131	Marine Biology (Lecture)	3
	and	
BIOL 131L	Marine Biology (Laboratory)	1
BIOL/ ZOO 135	Biology of Marine Mammals	3
BIOL/ NUTR 185	Science of Human Nutrition	3
BIOL 295	Directed Study in Life Science	1 - 3
MICR 200	Fundamentals of Microbiology	4
ZOO 100	General Zoology	4
	or	
ZOO 101	General Zoology (Lecture)	3
	and	
ZOO 101L	General Zoology (Laboratory)	1
ZOO 120	Animal Behavior	3
ZOO 145	Introduction to Anatomy and Physiology	3
ZOO 145L	Introduction to Anatomy and Physiology Laboratory	1
ZOO 200	Anatomy	4
ZOO 203	Physiology	4
ZOO 295	Directed Study in Zoology	1 - 3
MINIMUM TOTAL UNITS		**32**

Recommended Electives: CHEM 100, 115, 115L; MATH 110, 115, 135, 140, 141; CSIT 105

See Catalog addendum at http://www.palomar.edu/catalog

Biology-Preprofessional

Provides intensive lower-division preparation for pursuing advanced studies in biological science, pre-medical, pre-dental, or pre-veterinarian 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.S. 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**

Courses in the program are based upon recommendations given to pre-med students at UC Berkeley. Actual requirements will vary from school to school and will depend on specific student goals. Students must check with the professional schools (not transfer schools) to which they plan to apply for their specific requirements. Choice of courses will also depend upon the student's major. Humanities majors, for example, can spread out pre-med coursework into their junior and senior years.

Recommended Electives: 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 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, NUTR 165, NUTR 185, and HE 165 combined: maximum credit, one course

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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.*
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 (4)
3 hours lecture - 3 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, 110/110L, 102, 105*
Transfer acceptability: *CSU; UC*
Principles of cellular, organismal and population biology as exemplified by, and relating to, the human organism.

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, 1.5, 2)
3, 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 NUTR 185*
Transfer acceptability: *CSU; UC*
Science of food, nutrients, and other substances. Processes by which humans ingest, digest, absorb, transport, utilize, and excrete foods and nutrients are explored. Emphasis on biological, chemical, and physiological implications to human nutrition and overall health. Current nutrition recommendations and controversies are analyzed from a scientific perspective.

BIOL 195A Field Studies in Natural History (1, 1.5, 2, 2.5, 3)
½-1 hours lecture - 1½-7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 100 ; or BIOL 101 ; or BIOL 130 ; or BIOL 131 ; or ZOO 100 ; or ZOO 101 ; or BIOL 114 ; or BOT 100 ; or BOT 101*
Note: *Fee charged*
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, 1.5, 2, 2.5, 3)
½-1 hours lecture - 1½-7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 100 ; or BIOL 101 ; or BIOL 130 ; or BIOL 131 ; or ZOO 100 ; or ZOO 101 ; or BIOL 114 ; or BOT 100 ; or BOT 101*
Note: *Fee charged*
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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 295 Directed Study in Life Science (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
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 195 Field Study of Native Plants (1, 1.5, 2, 2.5, 3)
½-1 hours lecture - 1½-7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in BIOL 100 ; or BIOL 101 ; or BIOL 114 ; or BIOL 130 ; or BIOL 131 ; or BOT 100 ; or BOT 101 ; or ZOO 100 ; or ZOO 101*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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, Real Estate

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: MD-341

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
- Administrative Assistant
- Advertising, Marketing, and Merchandising
- Business - General
- E-Marketing
- Medical Office Specialist

Associate in Science for Transfer -
AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
- Business Administration

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Administrative Assistant
- Advertising, Marketing, and Merchandising
- E-Marketing
- Medical Office Specialist
- Retail Management

PROGRAMS OF STUDY

Administrative Assistant

This program is designed to prepare the student for an entry level or higher office position and reflects significant changes in the level of preparedness in Digital Information Literacy that is required to enter business and industry.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
ACCT 101	Bookkeeping	3
BUS 100	Introduction to Business	3
BUS 104	Business Information Systems	3
BUS 110	Business Mathematics	3
BUS 120	Introduction to Office Information Systems	3
BUS 152	Social Media for Business	3
BUS 166	Intermediate Keyboarding	2
BUS 167	Microsoft Office Integration	3
BUS 171	Word for Business - Advanced	1
BUS 173	Contemporary Job Search Techniques	1
BUS 176	Excel Intermediate	1
BUS 187	Project for Business	1
BUS 190	Internet for Business	1
BUS 205	Business Communication	3
TOTAL UNITS		**31**

Credit For Certified Administrative Professional (Cap) Certification: Individuals who hold the certification for Certified Professional Secretary (CPS) or Certified Administrative Professional (CAP) may apply to the Business Administration Department for units toward an Administrative Assistant Associate in Arts Degree. The units granted, with a grade of CR, will be posted to the student's transcript upon completion of the remaining AA degree requirements. Students must provide evidence of successful completion of the CPS or CAP certification.

Advertising, Marketing, and Merchandising

This program is designed to provide a general academic background of coursework pertinent to entry-level employment and/or upper division education in the field of product or service distribution.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 101	Bookkeeping	3
	or	
ACCT 201	Financial Accounting	4
BUS 110	Business Mathematics	3
BUS 115	Business Law	3
	or	
BUS 117	Legal Environment of Business	3
BUS 140	Selling for Business	3
BUS 145/ FASH 125	Retailing/Promotion	3
BUS 150	Advertising	3
BUS 155	Marketing	

Electives (Select 6 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 173	Contemporary Job Search Techniques	1
BUS 189	Beyond Outlook Essentials	1
BUS 205	Business Communication	3

BMGT 110	Human Resource Management	3
BMGT 105	Small Business Management	3
CSIT 105	Computer Concepts and Applications	3
	or	
CSIT 120	Computer Applications	3
MATH 120	Elementary Statistics	4
SPCH 100	Oral Communication	3
TOTAL UNITS		**27 - 28**

Recommended Elective: BUS 171

Business Administration

The Associate in Science in Business Administration for Transfer degree provides students the basic functions of business including accounting, economics, business ethics, business related soft-ware applications, business communications and business statistical study. The degree prepares students for entry into an extraordinary number of academic studies such as: accounting, finance, marketing, business administration, advertising, merchandizing, banking, economics, entrepreneurial studies, health care management, hospitality management, international business, and public relations. It can also provide skills necessary for entry-level positions in the field of business.

To obtain the Associate in Science in Business Administration for Transfer, students must complete the following:

Maximum of 60 CSU-transferable units with a minimum grade point average (GPA) of 2.0. and a grade of "C" or better in all courses required for the major:

• a minimum of 18 semester units in the major as determined by the community college district, and:

one of the following general education patterns:

• the California State University General Education-Breadth (CSU GE-Breadth) pattern of 39 units; OR:

• the Intersegmental General Education Transfer Curriculum (IGETC) pattern of 37 units

AS-T TRANSFER MAJOR

Program Requirements		
ACCT 201	Financial Accounting	4
ACCT 202	Managerial Accounting	4
ECON 101	Principles of Economics (Macro)	3
ECON 102	Principles of Economics (Micro)	3
BUS 117	Legal Environment of Business	3
List A: Select one of the following:		
MATH 130	Calculus for Business and the Social Sciences	4
MATH 120	Elementary Statistics	4
List B: Select two of the following or any course from List A not already chosen:		
BUS 104	Business Information Systems	3
	or	
CSIT 125	Computer Information Systems	3
BUS 204	Quantitative Business Analysis	3
BUS 100	Introduction to Business	3
	or	
BUS 205	Business Communication	3
TOTAL UNITS		**27**

Business-General

This program is primarily designed for students who are seeking an overview of business. The program provides skills necessary for entry-level positions in the field of business. If transferring to a four year institution use the Associate Degree for Transfer Business (AD-T Business Administration).

A.S. DEGREE MAJOR

Program Requirements		**Units**
ACCT 101	Bookkeeping	3
	or	
ACCT 201	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Concepts	2
BUS 100	Introduction to Business	3
BUS 110	Business Mathematics	3
BUS 115	Business Law	3
	or	
BUS 117	Legal Environment of Business	3
BUS 125	Business English	3
BUS 155	Marketing	3
	or	
IBUS 105	International Marketing	3
BMGT 101	Introduction to Management	3
	or	
BMGT 105	Small Business Management	3
	or	
IBUS 100	Introduction to International Business and Management	3
BUS 205	Business Communication	3
CSIT 105	Computer Concepts and Applications	3
	or	
CSIT 120	Computer Applications	3
Electives (Select 6-9 units)		
ACCT 115	Sales Tax, Payroll Taxes, and Employee Benefits	2
ACCT 202	Managerial Accounting	4
BUS 116	Business Law	3
BUS 130	Introduction to 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 165	Beginning Keyboarding	2
	or	
BUS 166	Intermediate Keyboarding	2
BUS 173	Contemporary Job Search Techniques	1
BUS 205	Business Communication	3
BUS 181	Access Intermediate	1
BUS 182	Access Advanced	1
BUS 205	Business Communication	3
TOTAL UNITS		**35 - 38**

* Not required if acceptable level skill has been completed in high school. Students excused from BUS 165 must substitute an elective.

Recommended Electives: BUS 170, 171; ECON 101; PSYCH 100

E-Marketing

This program combines business skills in marketing and advertising with technical skills in web design and digital media production. Students will gain a working knowledge of Web 2.0 techniques used in e-marketing such as digital media design, search engine optimization, social networking, and other methods of creating digital content for driving website traffic.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
BUS 150	Advertising	3
BUS 152	Social Media for Business	3
BUS 155	Marketing	3
	or	
IBUS 105	International Marketing	3
BUS 157	E-Commerce	3
GCIP 140	Digital Imaging/Photoshop I	3
GCMW 177	Search Engine Optimization (SEO) for Web Design	3
GCMW 204	Motion Graphics for Multimedia	3
Electives (Select 6 units)		
ACCT 101	Bookkeeping	3
BMGT 105	Small Business Management	3
BUS 104	Business Information Systems	3
BUS 117	Legal Environment of Business	3
BUS 140	Selling for Business	3
BUS 145 / FASH 125	Retailing/Promotion	3
BUS 185	Powerpoint for Business	1
BUS 190	Internet for Business	1
BUS 205	Business Communication	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 106	Multimedia for Social Networking	3
GCMW 120	Designing for the Social Web	3
GCMW 140	Web Graphics	3
GCMW 165	Digital Video Design	3
GCMW 205	Digital Video for Multimedia	3
CSIT 70	Web 2.0 - The Web's Edge	3
TOTAL UNITS		**27**

Medical Office Specialist

Provides specific front-office skills for an entry-level position in a medical-related facility.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
BUS 80	Medical Terminology and Anatomy	4
BUS 82	Medical Insurance Billing and Coding	3
BUS 84	Healthcare Writing Techniques	2
BUS 86	Electronic Health Record Applications	2
BUS 88	Medical Office Administration	3
BUS 120	Introduction to Office Information Systems	3
BUS 166	Intermediate Keyboarding	2
CE 150	Cooperative Education Internship	2 - 3
Demonstrate the ability to type 45 net words per minute for five minutes with 5 errors or less		
TOTAL UNITS		**21 - 22**

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 201	Financial Accounting	4
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 Communication	3
	or	
ENG 100	English Composition	4
BUS 120	Intro to Office Info Systems	3
SPCH 100	Oral Communication	
	or	
SPCH 115	Interpersonal Communication	3
TOTAL UNITS		**31-32**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

BUS 80 Medical Terminology and Anatomy (4)
(Formerly OIS 80)
4 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.

BUS 82 Medical Insurance Billing and Coding (3)
(Formerly OIS 82)
3 hours lecture
Recommended preparation: *BUS 80*
Provides entry level skills in medical insurance, billing, diagnostic and medical procedural coding with CPT-4 and ICD-9 guidelines. Includes compiling and abstracting information from the medical record utilizing computer coding techniques and promoting accurate reimbursement of medical claims. Prepares and utilizes health care claim forms.

BUS 84 Healthcare Writing Techniques (2)
2 hours lecture
Prerequisite: *A minimum grade of 'C' in BUS 80*
Application of writing skills to common writing situations found in various medical settings following HIPAA rules and standards. Includes the writing of medical letters, memos, and emails; medical records including charting and documenting; a variety of medical reports; meeting minutes; research and manuscripts.

BUS 86 Electronic Health Record Applications (2)
(Formerly OIS 86)
2 hours lecture
Recommended preparation: *BUS 80*
Application of technology in the health care industry. Includes overview of EHR software; privacy, confidentiality, and security of the EHR; transitioning from paper charts to the EHR; administrative use of the EHR; using the EHR for reimbursement; the EHR role in health promotion and patient education; and, the personal health record and patient advocacy.

BUS 88 Medical Office Administration (3)
(Formerly OIS 88)
3 hours lecture
Recommended preparation: *BUS 80*
Designed to prepare students for employment as a medical administrative assistant. Topics include the career of a medical administrative assistant; the health care team; medical law and ethics; patient diversity, communications, appointment scheduling, and reception/registration; patient services of HIM, HIPAA, medical billing, health insurance and benefits (CMS-1500, Tricare, CHAMPVA, COBRA); directing the activities of the medical office (business operations, financial management, and human resource management); and, job search essentials.

BUS 100 Introduction to Business (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID BUS 110
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 104 Business Information Systems (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID BUS 140
Examination of information systems and their role in business. Focus on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware and software components. Application of these concepts and methods through hands-on projects developing computer-based solutions to business problems.

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 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: *BUS 115*
Transfer acceptability: *CSU; UC – BUS 115, 116, 117, LS 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 combined: maximum credit, one course*
C-ID BUS 120
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 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.

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*
An integrated approach to personal finance that focuses on practical financial decision-making, as well as the physiological, psychological and sociological contexts in which those decisions are made. Topics include money management, taxes, financial services, consumer credit, consumer purchasing strategies, housing, property and automobile insurance, health and disability insurance, life insurance, investment analysis and retirement and estate planning.

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 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.

See Catalog addendum at http://www.palomar.edu/catalog

BUS 152 Social Media for Business (3)
3 hours lecture
Transfer acceptability: *CSU*
Explores social media use from a business perspective. Students learn how to develop a social media strategy to promote business, build strong customer relationships, and coordinate a common message across multiple channels. Strategic and tactical review of the major social networking platforms will be reviewed in order to drive business goals and create a personal brand online.

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 Beginning Keyboarding (2)
1 hour lecture - 3 hours laboratory
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Introduction to basic business document formatting. Touch-typing of alphabetic, numeric, and symbol keys on a computer keyboard. Includes development of speed and accuracy on straight copy.

BUS 166 Intermediate Keyboarding (2)
1 hour lecture - 3 hours laboratory
Recommended preparation: *BUS 165, or a keyboarding speed of 30 net words per minute*
Transfer acceptability: *CSU*
Continued development of higher speed and accuracy timed writing goals from BUS 165. Emphasis is placed on production of a variety of more complicated multipage business documents and forms.

BUS 167 Microsoft Office Integration (3)
1½ hour lecture - 4½ hours laboratory
Recommended preparation: *BUS 120*
Transfer acceptability: *CSU*
Preparation of a variety of business projects that integrate database (Access), spreadsheet (Excel), word processing (Word), and presentation software applications (PowerPoint). Also includes electronic calendaring (Outlook) and page layout and design (Publisher).

BUS 169 Data Entry Skills (1)
(Formerly OIS 108)
½ hour lecture - 1½ hours laboratory
Recommended preparation: *BUS 165*
Transfer acceptability: *CSU*
Development of 10-key touch on the computer numeric keypad as applied to a variety of business-related forms. Speed and accuracy are measured to industry standards.

BUS 170 Word for Business – Basic (1)
½ hour lecture - 1½ hours laboratory
Recommended preparation: *A keyboarding speed of 20 net words a minute*
Note: *May be open entry/open exit*
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)
½ hour lecture - 1½ hours laboratory
Recommended preparation: *BUS 170*
Note: *May be open entry/open exit*
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 173 Contemporary Job Search Techniques (1)
½ hour lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Use the Internet, current software, and research tools to organize and implement a job search. Includes: on-line resources; preparation and posting of application materials, including digital resume and digital cover letters; interview strategies and mock interviews; industry speakers, and hard copy and online portfolios.

BUS 175 Excel Basic (1)
½ hour lecture - 1½ hours laboratory
Recommended preparation: *BUS 110*
Note: *May be open entry/open exit*
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)
½ hour lecture - 1½ hours laboratory
Recommended preparation: *BUS 175 or Equivalent*
Note: *May be open entry/open exit*
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)
½ hour lecture - 1½ hours laboratory
Recommended preparation: *A minimum grade of 'C' in BUS 176 or Equivalent*
Note: *May be open entry/open exit*
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 Basic (1)
½ hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
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 181 Access Intermediate (1)
½ hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in BUS 180*
Transfer acceptability: *CSU*
Study and application of Microsoft Office Access including creating advanced queries and enhancing table design; creating custom forms; creating custom reports; and, importing, exporting, linking and analyzing data.

BUS 182 Access Advanced (1)
½ hour lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in BUS 181*
Transfer acceptability: *CSU*
Advanced application of Microsoft® Office Access including applying action queries and advanced table relationships; creating macros; and managing and securing databases at the user level.

BUS 185 PowerPoint for Business (1)
½ hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
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 187 Project for Business (1)
½ hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
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 189 Beyond Outlook Essentials (1)
½ hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Comprehensive study of Outlook, an information management and communication program. In-depth study of Outlook used in intra- and internet environments, for organizational and communication purposes. Outlook terminology and concepts, and applications and projects for organizational intranets and the World Wide Web.

BUS 190 Internet for Business (1)
½ hour lecture - 1½ hours laboratory
Note: *May be open entry/open exit*
Transfer acceptability: *CSU*
Basic concepts of navigating the Internet and Intranet including terminology; browsing and searching the web with emphasis on evaluating the credibility of search results; dedicated e-mail systems and web-based email services; social media; portals and accessing a variety of online resources; overview of internet technologies and security issues; and, practical applications designed for the business environment. In addition, the basics of e-Commerce are covered.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Business. See Class Schedule for specific topic offered. Course title will designate subject covered.

BUS 204 Quantitative Business Analysis (3)
3 hours lecture
Recommended Preparation: *MATH 60, and MATH 120*
Transfer acceptability: *CSU*
The applied science of basing business decisions on numerical data that managers can use to reduce risk in customer, product, investment, and other significant operational and strategic business decisions. Rather than the focus being on the details of computation, the emphasis is placed on a few key concepts for collecting and interpreting business data, drawing conclusions and using data to make predictions to support decision making. Makes extensive use of software tools (such as spreadsheets) for analyzing data. Designed for students majoring in business or economics and is not intended to meet any general education mathematics requirement.

BUS 205 Business Communication (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in English 100*
Transfer acceptability: *CSU*
C-ID BUS 115
This course applies the principles of ethical and effective communication to the creation of letters, memos, emails, and written and oral reports for a variety of business situations. The course emphasizes planning, organizing, composing, and revising business documents using word processing software for written documents and presentation-graphics software to create and deliver professional-level oral reports. This course is designed for students who already have college-level writing skills.

BUS 210 Business Office Procedures (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in BUS 104 and BUS 106, or concurrent enrollment in BUS 104 and BUS 106*
Transfer acceptability: *CSU*
The role of administrative support personnel in today's office environment, including topics in workplace dynamics; professional image and business etiquette; ethics; leadership and management; customer service; written and verbal communications; records and financial management; meeting and event planning; travel arrangements; workplace mail and duplicating; job search and advancement; job performance evaluation.

Business International

See International Business

Business Management (BMGT)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: MD-341

Associate in Science Degrees -

AS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 201	Financial Accounting	4
ACCT 104	Accounting Spreadsheet Concepts	2
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 BUS 117	Business Law / Legal Environment of Business	3
BUS 138	Business Ethics	2
BUS 155	Marketing	3
BUS 205	Business Communication	3
Elective Courses (Select 3-4 units)		
ACCT 202	Managerial Accounting	4
BMGT 105	Small Business Management	3
BMGT 110	Human Resource Management	3
BMGT 125	Introduction to Labor Relations	3
BMGT 295	Directed Study in Business Management	1 - 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
BUS 170	Word for Business – Basic	1
BUS 180	Access Basic	1
BUS 185	PowerPoint for Business	1
ECON 100	Basic Economics	3
TOTAL UNITS		**32 – 33**

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.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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-102A
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).
- Cabinetmaking and Millwork
- Carving Technology
- Case Furniture Construction/Manufacturing
- Guitar Making Technology
- Lathe Turning Technology
- Table and Chair Manufacturing
- Veneering Technology
- Woodworking Skills Technology

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Cabinetmaking and Millwork
- Carving Technology
- Case Furniture Construction/Manufacturing
- Guitar Making Technology
- Lathe Turning Technology
- Table and Chair Manufacturing
- Veneering Technology
- Woodworking Skills Technology

PROGRAMS OF STUDY

Cabinetmaking and Millwork

This program will prepare students to make a living at cabinetmaking. It provides the student with the theory and skills needed for employment and/or self 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CFT 100	Fundamentals of Woodworking	4
CFT 105	Machine Woodworking/Furniture	4
CFT 108	Business Woodworking	2
CFT 165A	Cabinetry Design/Face Frame	4
	and	
CFT 167A	Cabinetry Production/Face Frame	4
	or	
CFT 165B	Cabinetry Design/European	4
	and	
CFT 167B	Cabinetry Production/European	4
CFT 168	Cabinetmaking/Architectural Millwork	2
CFT 169	Cabinetmaking/Computer Cabinet Layout	2
CFT 185	Machine Tool Set-Up and Maintenance	2
CFT 195	Finishing Technology/Touch-Up and Repair	2
Electives (Select one course)		
CFT 163	Plastic Laminate Fabrication Techniques	1
CFT 169	Cabinetmaking/Computer Cabinet Layout	2
TOTAL UNITS		**27-28**

Carving Technology

Carving Technology prepares students to make a living at woodcarving. Students explore use of tools and techniques used in carving wood as it applies to furniture and architectural millwork. Students will begin by gaining skill in simple layouts and learn to sharpen and maintain tools. As student progresses, both low and high relief carving as well as incised lettering will be mastered. Period furniture and architectural carvings are eventually mastered. Students will be qualified carvers in furniture shop or prepared to start own business.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
CFT 100	Fundamentals of Woodworking	4
CFT 108	Business Woodworking	2
CFT 118	Furniture Design Development	2
	or	
CFT 153	Studio Furniture Design I	2
CFT 149	Hand Joinery I	2
CFT 187	Introduction to Carving	2
CFT 188	Intermediate Carving	2
CFT 189	Advanced Carving	2
CFT 195	Finishing Technology/Touch-Up and Repair	2
Electives (Select 4 units)		
CFT 142	The Art and Craft of Planemaking	2
CFT 143	Decorative Box Making	2
CFT 144	Production Wood Products I	1
CFT 170	Workbench Design and Production	2
CFT 173	Bamboo Fly Rod Building	2
CFT 105	Machine Woodworking/Furniture	4
CFT 110A	Period Case Furniture Design	4
CFT 111A	Period Case Furniture Production	4
TOTAL UNITS		**22**

Case Furniture Construction/Manufacturing

This program will prepare students to make a living manufacturing case furniture. The emphasis will be on utilizing construction processes and building skills to fabricate solid wood furniture with doors and drawers. By studying historic period furniture pieces students will apply traditional methods of construction to modern and contemporary designs while also developing production methods to increase efficiency and profit. Students will learn to work with clients to design and construct either period furniture pieces or custom contemporary pieces.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
CFT 100	Fundamentals of Woodworking	4
CFT 105	Machine Woodworking/Furniture	4
CFT 108	Business Woodworking	2
CFT 110A	Period Case Furniture Design	4
	and	
CFT 111A	Period Case Furniture Production	4
	or	
CFT 110B	Contemporary Case Furniture Design	4
	and	
CFT 111B	Contemporary Case Furniture Production	4
CFT 118	Furniture Design Development	2
	or	
CFT 153	Studio Furniture Design I	2
CFT 195	Finishing Technology/Touch-Up and Repair	2
Electives (Select 2 units)		
CFT 142	The Art and Craft of Planemaking	2
CFT 143	Decorative Box Making	2
CFT 148	Marquetry, Inlay and Veneering	2

See Catalog addendum at http://www.palomar.edu/catalog

CFT 169	Cabinetmaking/Computer Cabinet Layout	2
CFT 170	Workbench Design and Production	2
CFT 175	Jigs/Fixtures and Routers	2
CFT 185	Machine Tool Set-Up and Maintenance	2
TOTAL UNITS		**24**

Guitar Making Technology

Guitar Making Technology will prepare students to make a living or begin a career as a maker of guitars or as a guitar repair technician. Students will begin by gaining competency in basic woodworking processes including hand tool and power machine usage, finishing, and safety. During the course work students will construct up to four instruments including a ukulele, an electric guitar, a steel string guitar and an arch top guitar. Business building is thoroughly covered. This is a demanding and highly technical program. Students are expected to be dedicated, determined and committed.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CFT 100	Fundamentals of Woodworking	4
CFT 108	Business Woodworking	2
CFT 132A	Ukulele Making I/Tenor Ukulele	4
CFT 133A	Guitar Technician I/Set-Up	2
CFT 134A	Electric Guitar Construction/Solid Body	2
CFT 135	Acoustic Guitar Making I	4
CFT 136	Acoustic Guitar Making II	4
CFT 149	Hand Joinery I	2
CFT 195	Finishing Technology/Touch-Up and Repair	2

Electives (Select 2 or more units)

CFT 130	Stringed Instruments I	3 - 5
CFT 131	Stringed Instruments II	3 - 5
CFT 132B	Ukulele Making II	4
CFT 133B	Guitar Technician II/Major Repair	2
CFT 134B	Electric Guitar Construction II/Custom	4
CFT 137	Arch Top Guitar Construction I	4
CFT 138	Arch Top Guitar Construction II	4
TOTAL UNITS		**28**

Lathe Turning Technology

This program prepares students to make a living as a wood turner. All aspects of turning will be explored such as making tools and household objects, period and studio furniture applications, architectural applications, vessels and hollow forms. Basic and advanced tool use, application and sharpening will be included. Students will be able design and fabricate turned period furniture parts, contemporary furniture parts, and custom furniture parts. Students will be able to design and fabricate functional items such as tool handles, platters vessels, bowls, as well as similar studio art pieces. Students will also be able to design a line of turned pieces and be able to market pieces in shows, on line and in galleries.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CFT 100	Fundamentals of Woodworking	4
CFT 108	Business Woodworking	2
CFT 118	Furniture Design Development	2
	or	
CFT 153	Studio Furniture Design I	2
CFT 176	The Lathe - An Introduction to Woodturning	2
CFT 177	Lathe II - Intermediate Turning	2
CFT 178	Lathe III - Advanced Turning	2
CFT 195	Finishing Technology/Touch-Up and Repair	2

Electives (Select 2 units)

CFT 105	Machine Woodworking/Furniture	4
CFT 143	Decorative Box Making	2
CFT 155	Classic American Chair Designs	2
CFT 173	Bamboo Fly Rod Building	2
CFT 185	Machine Tool Set-Up and Maintenance	2
TOTAL UNITS		**18**

Table and Chair Manufacturing

Table and chair furniture is unique in that it is highly interactive with people who use them. Design and joinery must consider comfort, esthetics and structure. This program will prepare students to make a living manufacturing table and chair furniture. The study of historic period pieces will enable students to apply traditional methods of construction to modern and contemporary designs. The finest furniture in the world is handmade and yet production methods can/will be applied to increase efficiency and profit.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CFT 100	Fundamentals of Woodworking	4
CFT 108	Business Woodworking	2
CFT 118	Furniture Design Development	2
	or	
CFT 153	Studio Furniture Design I	2
CFT 149	Hand Joinery I	2
CFT 155	Classic American Chair Designs	2
CFT 159A	Chair and Tables/Prototype Construction I	2
CFT 159B	Chair and Tables/Prototype Construction II	2
CFT 160A	Chairs and Tables/Production Manufacturing I	2
CFT 160B	Chairs and Tables/Production Manufacturing II	2
CFT 195	Finishing Technology/Touch-Up and Repair	2

Electives (Select 2 units)

CFT 142	The Art and Craft of Planemaking	2
CFT 156	Advanced Classic American Chair Designs	2
CFT 170	Workbench Design and Production	2
CFT 173	Bamboo Fly Rod Building	2
CFT 180	Wood Bending and Lamination/Wood Technology	2
CFT 185	Machine Tool Set-Up and Maintenance	2
CFT 198	Advanced Wood Finishing	2
TOTAL UNITS		**24**

Veneering Technology

The world's most beautiful woods are processed into veneers. Veneered furniture has a rich history in both period and contemporary furniture. This program will prepare students to make a living manufacturing veneered furniture. The study of historic period pieces will enable students to apply traditional methods of construction to modern and contemporary designs. Students will be able to design and fabricate period furniture as well as contemporary furniture pieces which use veneer as the primary visual wood or utilize veneer in the visual design elements of the piece. Students will be able to work with a client to design and fabricate commissioned veneered furniture pieces. Students will also be able to design a line of furniture, which can be fabricated, utilizing a combination of production methods of hand craftsmanship. The finest furniture in the world is handmade and yet production methods can/will be applied to increase efficiency and profit.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CFT 100	Fundamentals of Woodworking	4
CFT 105	Machine Woodworking/Furniture	4
CFT 108	Business Woodworking	2
CFT 118	Furniture Design Development	2
	or	

CFT 153	Studio Furniture Design I	2
CFT 148	Marquetry, Inlay and Veneering	2
CFT 151	Veneering Technology I	2
CFT 152	Veneering Technology II	2
CFT 195	Finishing Technology/Touch-Up and Repair	2

Electives (Select 2 units)

CFT 110A	Period Case Furniture Design	4
CFT 111A	Period Case Furniture Production	4
CFT 142	The Art and Craft of Planemaking	2
CFT 143	Decorative Box Making	2
CFT 144	Production Wood Products I	1
CFT 145	Production Wood Products II	1
CFT 180	Wood Bending and Lamination/Wood Technology	2
TOTAL UNITS		**22**

Woodworking Skills Technology

The finest furniture in the world is hand made. Skilled craftsman are rare and valuable. There is always a market for quality. This program will prepare students to make a living at woodworking with an emphasis on hand skills, traditional methods and European craftsmanship. Students will gain competence in the use of hand tools, power tools, and power machines and be able to properly select and safely use/operate them. Students will be able efficiently sharpen all of hand tools used. Students will gain basic proficiency in the following processes/techniques/skills; lathe turning, carving, wood bending, veneering, hand joinery and finishing. Students will also be able to write a business plan and gain an understanding of the operations of running a small business.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CFT 100	Fundamentals of Woodworking	4
CFT 108	Business Woodworking	2
CFT 118	Furniture Design Development	2
	or	
CFT 153	Studio Furniture Design I	2
CFT 149	Hand Joinery I	2
CFT 151	Veneering Technology I	2
CFT 176	The Lathe - An Introduction to Woodturning	2
CFT 180	Wood Bending and Lamination/Wood Technology	2
CFT 187	Introduction to Carving	2
CFT 195	Finishing Technology/Touch-Up and Repair	2

Electives (Select 2 units)

CFT 142	The Art and Craft of Planemaking	2
CFT 143	Decorative Box Making	2
CFT 144	Production Wood Products I	1
CFT 145	Production Wood Products II	1
CFT 155	Classic American Chair Designs	2
CFT 156	Advanced Classic American Chair Designs	2
CFT 173	Bamboo Fly Rod Building	2
CFT 175	Jigs/Fixtures and Routers	2
CFT 182	Timber Framing Technology	3
TOTAL UNITS		**22**

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Topics in Cabinet and Furniture Technology. See Class Schedule for specific topic covered. Course title will designate subject covered.

CFT 100 Fundamentals of Woodworking (3, 4)
1½ or 2 hours lecture - 4½, or 6 hours 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.

CFT 105 Machine Woodworking/Furniture (3, 4)
1½ or 2 hours lecture - 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
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 108 Business Woodworking (2, 3, 4)
2, 3, or 4 hours lecture
Transfer acceptability: *CSU*
Prepare woodworkers to start and run a business. Topics include developing a business plan, strategies for shop efficiency, and tax and legal requirements.

CFT 110A Period Case Furniture Design (3, 4)
1½ or 2 hours lecture - 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
Focus is on the design of a period furniture project. Use of advanced level of joinery utilizing design; mortise and tenon; dovetails; frame and panel; and other joinery used in period case furniture.

CFT 110B Contemporary Case Furniture Design (3 - 4)
1½ - 2 hours lecture - 4½ - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
Design of a contemporary furniture project. Use advanced level of joinery utilizing design; mortise and tenon; dovetails; frame and panel; and other joinery used in contemporary case furniture.

CFT 111A Period Case Furniture Production (3, 4)
1½ or 2 hours lecture - 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 110A*
Transfer acceptability: *CSU*
Production phase of period case furniture. Emphasis is on the completion of a solid wood period case furniture piece. Includes details such as traditional joinery; door and drawer construction methods; furniture hardware; and various finishing choices. Creation of special molding and spindle turnings for decorating the carcase will also be explored.

CFT 111B Contemporary Case Furniture Production (3, 4)
1½ or 2 hours lecture - 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 110B*
Transfer acceptability: *CSU*
Production phase of contemporary case furniture. Emphasis is on the completion of a solid wood contemporary case furniture piece. Includes traditional joinery; door and drawer construction; furniture hardware; finishing choices; and wood lamination. Creation of special molding and spindle turnings and CNC milling will also be explored.

CFT 118 Furniture Design Development (2)
1 hour lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Fundamental elements and principles of design while developing unique design methodologies and creative practices. Practical skills such as sketching, drawing, drafting, and model making will be stressed. In addition, students will explore wood as a creative medium by experimenting with a variety of surface textures and treatments.

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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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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 132A Ukulele Making I/Tenor Ukulele (3-5)
1½ - 2½ hours lecture - 4½ - 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
Introduction to the processes and construction details for building a tenor ukulele. Major topics include acoustic theory and mill and fabrication of components for stringed instruments. Each student must complete an individual tenor ukulele.

CFT 132B Ukulele Making II (3-5)
1½ - 2½ hours lecture - 4 - 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 132A, or concurrent enrollment in CFT 132A*
Transfer acceptability: *CSU*
Students will construct an ukulele while concurrently preparing jigs, molds and fixtures for ukulele production. Students will also explore advance techniques of embellishment and various ukulele models.

CFT 133A Guitar Technician I/Set-Up (2-4)
1 - 2 hours lecture - 3 - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
Techniques are used to analyze and diagnose common guitar repair issues. Determine options and techniques in the repair of common problems, with an emphasis on basic set-up and minor repair. A basic preparation course for guitar repair technician positions.

CFT 133B Guitar Technician II/Major Repair (2-4)
1 - 2 hours lecture - 3 - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 133A*
Transfer acceptability: *CSU*
Use techniques to analyze and diagnose common guitar repair issues. Determine options and techniques in the repair of common problems; with an emphasis on major repair and advanced set-up. A preparation course for guitar repair technician positions.

CFT 134A Electric Guitar Construction I/Solid Body (2-4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
The construction of a simple solid body electric guitar, either a "strat" or "tele" style, provides basic processes and construction details involved in the building of electric guitars, as well as the basic electronics. Skills gained in other CFT courses will be used to mill and fabricate parts. Production work and completion of an electric guitar are required. Excellent woodworking skills are essential. An extremely demanding and fast-paced course.

CFT 134B Electric Guitar Construction II/Custom (2-4)
1 - 2 hours lecture - 3 - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 134A*
Transfer acceptability: *CSU*
Construction of a contour top electric guitar, such as a "Les Paul" style or a semi-hollow body guitar. Provides processes and construction details involved in the building of high-end and custom electric guitars, as well as the basic electronics. Skills gained in other CFT courses will be used to mill and fabricate parts. Production work and completion of an electric guitar are required. Excellent woodworking skills are essential. An extremely demanding and fast-paced course. Students will also be encouraged to build jigs forms and fixtures to aid in production.

CFT 135 Acoustic Guitar Making 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*
Transfer acceptability: *CSU*
First course of a two-semester sequence. Prepares students for a career as a luthier while studying the history, anatomy, construction methods, design, tone, and sound theory of acoustic guitars. Construction of either a nylon string or steel string acoustic guitar is required. Considerable prior woodworking/instrument making experience is recommended.

CFT 136 Acoustic Guitar Making II (3, 4, 5)
1½, 2, or 2½ hours lecture - 4½, 6, or 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 135*
Transfer acceptability: *CSU*
Second course of a two-semester sequence. Prepares students for a career as a luthier while studying the history, anatomy, construction methods, design, tone, and sound theory of acoustic guitars. Construction of either a nylon string or steel string acoustic guitar is required. Considerable prior woodworking/instrument making experience is recommended.

CFT 137 Arch Top Guitar Construction 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*
Transfer acceptability: *CSU*
First course of a two-semester sequence. Prepares students for a career as a luthier while studying the history, anatomy, construction methods, design, tone, and sound theory of acoustic guitars. Construction of an Arch Top Guitar (somewhat like a violin with the front and back plates carved to a thin arched shape from thick stock) is required. Considerable prior woodworking/instrument making experience is recommended.

CFT 138 Arch Top Guitar Construction II (3, 4, 5)
1½, 2, or 2½ hours lecture - 4½, 6, or 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 137*
Transfer acceptability: *CSU*
Second course of a two-semester sequence. Prepares students for a career as a luthier while studying the history, anatomy, construction methods, design, tone, and sound theory of acoustic guitars. Construction of an Arch Top Guitar (somewhat like a violin with the front and back plates carved to a thin arched shape from thick stock) is required. Considerable prior woodworking/instrument making experience is recommended.

CFT 141 Making Woodworking Tools (1, 2, 3)
½, 1, or 1½ hours lecture - 1½, 3, or 4½ hours laboratory
Transfer acceptability: *CSU*
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 (1, 2, 3)
½, 1, or 1½ hours lecture - 1½, 3, or 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
Teaches 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)
1, 1½ or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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 Wood Products I (1, 2, 3, 4)
½ or 1, 1½ or 2 hour lecture - 1½ or 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
Methods and techniques of high production manufacturing are learned through lecture, demonstration and extensive lab work in a production mode. The wood products manufactured in this course may be donated to local charities.

CFT 145 Production Wood Products II (1, 2, 3, 4)
½ or 1, 1½ or 2 hour lecture - 1½ or 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 144*
Transfer acceptability: *CSU*
Students will be Team Leaders/Managers in design, planning, time and material managements, and production. Includes organizing schedules, material flow, and production techniques. The wood products manufactured in this course may be donated to local charities.

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*
Transfer acceptability: *CSU*
Examines the history of Marquetry. Students will use the tools necessary to complete 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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 149*
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 151*
Transfer acceptability: *CSU*
Advanced veneering techniques which include working with radius shapes, hand and machine, hammer veneering, and installation of bandings and stringings. Demonstration of abilities will be required with the construction of a small piece of furniture.

CFT 153 Studio Furniture Design I (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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)
2, 3, or 4 hours lecture
Prerequisite: *A minimum grade of 'C' in CFT 153*
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Transfer acceptability: *CSU*
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.

See Catalog addendum at http://www.palomar.edu/catalog

CFT 156 Advanced Classic American Chair Designs (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 155*
Transfer acceptability: *CSU*
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 159A Chair and Tables/Prototype Construction I (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
An in-depth study of production chair making. History of chairs making and seating. Design and application of pattern-making techniques on student-selected projects.

CFT 159B Chair and Tables/Prototype Construction II (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
Table design and construction. Covers the history of table making. Design and application of pattern making techniques on student-selected projects. Machine tool operations necessary to produce various table leg, trussel, and base designs.

CFT 160A Chairs and Tables/Production Manufacturing I (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 159A*
Transfer acceptability: *CSU*
Second semester of a two-semester class (CFT 159A and CFT 160A). Chair and seating construction production and advanced machine tool techniques are used as they relate to chair making. Fine joinery, theory and advanced techniques.

CFT 160B Chairs and Tables/Production Manufacturing II (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 159B*
Transfer acceptability: *CSU*
Second semester of a two-semester class (CFT 159B and CFT 160B). 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 (1, 2)
½ or 1 hour lecture - 1½ or 3 hours laboratory
Transfer acceptability: *CSU*
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 (1, 2)
½ or 1 hour lecture - 1½ or 3 hours laboratory
Transfer acceptability: *CSU*
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 165A Cabinetry Design/Face Frame (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
First course of a two-semester sequence (CFT 165A and CFT 167A). Emphasis is on face frame cabinets. Study of the principles of traditional and European styles of cabinetmaking as used to construct and install cabinetry in residential and commercial applications, with preference given to residential applications.

CFT 165B Cabinetry Design/European (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
First course of a two-semester sequence (CFT 165B and CFT 167B). With an emphasis on European 32mm cabinets. Study of the principles of traditional and European styles of cabinetmaking as used to construct and install cabinetry in residential and commercial applications, with preference given to residential applications.

CFT 166 Cabinetmaking/Production and Manufacturing (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 165A*
Transfer acceptability: *CSU*
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 167A Cabinetry Production/Face Frame (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 165A*
Transfer acceptability: *CSU*
Second course of a two-semester sequence. Students will learn and apply the construction methods and installation processes of face frame cabinets by constructing the cabinets designed in CFT 165A.

CFT 167B Cabinetry Production/European (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 165B*
Transfer acceptability: *CSU*
Second course of a two-semester sequence (CFT 165B and CFT 167B). Students will learn and apply the construction methods and installation processes of European style 32mm cabinets by constructing the cabinets designed in CFT 165B.

CFT 168 Cabinetmaking/Architectural Millwork (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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 (2, 3)
1 or 1½ hours lecture - 3 or 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
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 CAD for Cabinets & Furniture (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Transfer acceptability: *CSU*
Introduction to basic CAD concepts and their direct application to the design and drawing of custom cabinets and furniture, as an alternative to hand drawn plans and a starting point to Computer Assisted Manufacturing.

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*
Transfer acceptability: *CSU*
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/Fixtures and Routers (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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 177 Lathe II - Intermediate Turning (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 176*
Transfer acceptability: *CSU*
The study of architectural turning in relation to furniture making and overall advanced turning techniques. Discussion of tool selection, proper tool sharpening techniques, what to expect from a basic set of turning tools, with emphasis on the skew, gouge, parting tool, and an introduction to specialty turning tools. Split turning, offset turning, multi-axis turning, and duplication will be introduced.

CFT 178 Lathe III - Advanced Turning (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 177*
Transfer acceptability: *CSU*
Continuation of Lathe II - Intermediate Turning. Exploration of techniques and material in-depth, and focus on mastery.

CFT 180 Wood Bending and Lamination/ Wood Technology (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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 182 Timber Framing Technology (3, 4, 5)
1½, 2, or 2½ hours lecture - 4½, 6, or 7½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
Timber framing is one of the oldest building systems in the world. Structures are created utilizing heavy timbers jointed via pegged mortise and tenon joints. This course teaches how to design and engineer a modern timber frame using energy efficient systems. Introduction to engineering principles, analyzing loads, architectural design, and layout. In this hands-on class students will build a timber frame structure. The class structure will be rigged and raised by students.

CFT 185 Machine Tool Set up and Maintenance (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
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 (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 105*
Transfer acceptability: *CSU*
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 (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Transfer acceptability: *CSU*
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 (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 187*
Transfer acceptability: *CSU*
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 (2, 3, 4)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Transfer acceptability: *CSU*
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.

See Catalog addendum at http://www.palomar.edu/catalog

CFT 190 Specialty and Manufactured Hardware (.5, 1, 2, 3)
½, 1, 2, or 3 hours lecture
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 100*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
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)
1, 1½, or 2 hours lecture - 3, 4½, or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in CFT 195*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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 Science Degrees -
AS 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.S. 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*
C-ID CHEM 110 for CHEM 110 and 110L combined; CHEM 120S for CHEM 110, 110L, 115 and 115L combined
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*
C-ID CHEM 110 for CHEM 110 and 110L combined; CHEM 120S for CHEM 110, 110L, 115 and 115L combined
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*
C-ID CHEM 120S for CHEM 110, 110L, 115 and 115L combined
A continuation of the general principles of chemistry with emphasis on chemical kinetics, chemical equilibria acids and bases, thermodynamics and electrochemistry. It includes an overview of coordination chemistry and organic 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*
C-ID CHEM 120S for CHEM 110, 110L, 115 and 115L combined
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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: MD-354

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 United States History from a Chicano Perspective I (3)
3 hours lecture
Note: *This course plus CS 102 meets the State requirement in American History and Institutions.*
Transfer acceptability: *CSU; UC*
A survey of early American history from the Mexican/Chicano perspective. Focus is on the period of discovery to Reconstruction with emphasis on the evolution, influence and experience of the Chicano. Chicano contributions are analyzed for political, social, economic and cultural development of the United States. Intended for students interested in history, ethnic studies or other social sciences.

CS 102 United States History from a Chicano Perspective II (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 survey course in American history that covers the period from the American acquisition in 1848 of Mexican territory to the present. Emphasis is placed on the role of the Chicano in the development of the United States throughout the nineteenth and twentieth century. Topics include slavery in the former Mexican territories, the native American experience, immigration patterns and constitutional development and government in California. Intended for students interested in history, ethnic studies, or other social issues.

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 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.

culture. Exploration of Mexican history and social development as it is expressed

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 161A Elementary Classical Nahuatl 1A (3)
3 hours lecture
Note: *Cross listed as AIS 161A*
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.

CS 161B Elementary Classical Nahuatl 1B (3)
3 hours lecture
Note: *Cross listed as AIS 161B*
Transfer acceptability: *CSU*
A continuation of AIS/CS 161A that reviews the phonology, morphology, syntax and grammar of the Nahuatl Language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

Child Development (CHDV)

Contact the Child Development Department for further information.
(760) 744-1150, ext. 2206
Office: MD-354
For transfer information, consult Patrick O'Brien at 760-891-7511 or a Palomar College counselor.

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
- Child and Family Services
- Early Childhood Administration
- Early Inclusion Teacher
- Infant/Toddler Teacher
- Preschool Teacher

Associate in Science for Transfer -
AS-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
- Early Childhood Education

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Child and Family Services
- Early Childhood Administration
- Early Inclusion Teacher
- Infant/Toddler Teacher
- Preschool Teacher

Certificates of Proficiency -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Assistant Teacher
- School Age Assistant

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), as family child care providers, and for 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 units in Child Development. CHDV 100 and 115 are required core courses. To complete the remaining 6 units, at least 3 units must be a curriculum course from the following: CHDV 105, CHDV 106, CHDV 125, CHDV 130, CHDV 135, CHDV 140, or CHDV 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 programs also meet 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 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.

The Child Development Department requires that students obtain a Palomar College Student Activity card for use as identification in order to complete course requirements.

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 99	Preparation for Child Development Majors	0.5
CHDV 100	Child Growth and Development	3
CHDV 105	Observation and Assessment	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 Inclusion	1
CHDV 115	Child, Family, and Community	3
CHDV 120	Health, Safety, and Nutrition	3
CHDV 185	Introduction to Curriculum	3
TOTAL UNITS		**16.5**

Child and Family Services

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 40 units listed in this section enable students to complete a Child and Family Services Certificate.

Students also have the option to earn an Associate in Science Degree in Child Development by completing 40 units for this Certificate and the General Education courses required by the college.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 99	Preparation for Child Development Majors	0.5
CHDV 100	Child Growth and Development	3
CHDV 101	Principles and Practices of Teaching Young Children	3
CHDV 102	Working with Parents and Families	3
CHDV 105	Observation and Assessment	3
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 Inclusion	1
CHDV 115	Child, Family, and Community	3
CHDV 145	Understanding Child Abuse and Family Violence	3
Curriculum Electives (Select 3 units)		
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 185	Introduction to Curriculum	3
Child Development Electives (Select 8.5 units)		
CHDV 104	Guidance for Young Children	3
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 110	Introduction to Special Education	3
CHDV 172	Teaching in a Diverse Society	3
CHDV 174	Policies, Politics, and Ethics in Child Development	1
CHDV 197A	Child Development Workshop: Cultural and Social Arts	0.5 - 4
CHDV 197B	Child Development Workshop: Health, Safety, and Nutrition	0.5 - 4
CHDV 197C	Child Development Workshop: Professional Development in Early Childhood Education	0.5 - 4
CHDV 197D	Child Development Workshop: Parenting Topics	0.5 - 4
CHDV 295	Directed Study in Child Development	1 - 3
Other Electives (Select 9 units)		
ANTH 105	Introduction to Cultural Anthropology	3
BUS 142	Customer Service	1
BMGT 105	Small Business Management	3
BIOL/NUTR 185	Science of Human Nutrition	3
MCS 100	Introduction to Multicultural Studies	3
PSYC 120	Social Psychology	3
SOC/PSYC 105	Marriage, Family and Intimate Relationships	3
SPCH 115	Interpersonal Communication	3
TOTAL UNITS		**40**

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 40 units listed in this section enable students to complete an Early Childhood Administration Certificate.

Students also have the option to earn an Associate in Science Degree in Child Development by completing 40 units for this Certificate and the General Education courses required by the college.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
CHDV 99	Preparation for Child Development Majors	0.5
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 and Assessment	3
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 Inclusion	1
CHDV 115	Child, Family, and Community	3
CHDV 120	Health, Safety, and Nutrition	3
* CHDV 150	Advanced Administration and Management for Early Childhood Directors	3
* CHDV 155	Advanced Supervision for Early Childhood Directors	3
CHDV 174	Policies, Politics, and Ethics in Child Development	1
CHDV 185	Introduction to Curriculum	3
CHDV 195	Adult Supervision/Mentor Teacher Preparation	3
CHDV 201	Practicum in Early Childhood Education	4
Electives (Select 3.5 units)		
CHDV 101	Principles and Practices of Teaching Young Children	3
CHDV 103	Infant and Toddler Development	3
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 110	Introduction to Special Education	3
CHDV/ COMM 144	Exploring the Effects of Media on Young Children	0.5
CHDV 145	Understanding Child Abuse and Family Violence	3
CHDV 152A	Environmental Rating Scale for Early Childhood Settings	1.5
	or	
CHDV 152B	Environmental Rating Scale for Infant/Toddler Settings	1.5
	or	
CHDV 152C	Environmental Rating Scale for Family Child Care	1.5
	or	
CHDV 152D	Environmental Rating Scale for School Age Care	1.5
CHDV 172	Teaching in a Diverse Society	3
TOTAL UNITS		**40**

*CHDV 150 and 155 courses are administration courses required for director positions in licensed child care facilities through Community Care Licensing.

Early Childhood Education

"The Associate in Science in Early Childhood Education for Transfer includes a selection of courses designed to align with the lower division child development/early childhood education programs offered in the CSU system. The degree provides academic preparation to individuals for a career as an early childhood educator. The program will give students general knowledge and skills in theory, principles, and techniques for working with young children."

The Student Transfer Achievement Reform Act (now codified in California Education sections 66746-66749) guarantees admission to a California State University (CSU) campus for any community college student who completes an associate degree for transfer, a newly established variation of the associate degrees traditionally offered at a California community college. The Associate in Science (AS-T) for Transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU system. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AS-T will be required to complete no more 60 units after transfer to earn a bachelor's degree (unless the major is designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

To obtain the Associate in Science in Early Childhood Education for Transfer, students must complete the following:

Units/GPA – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all major courses. The major core is a minimum of 26 units in Child Development (CHDV). While a minimum of 2.00 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.

General Education – Must complete one of the following general education transfer patterns:

California State University General Education Breadth Pattern (GCU-GE): 39 units minimum

Intersegmental General Education Transfer Curriculum (IGETC): 37 units minimum

Students completing this degree program may enter the following careers (examples, but not limited to):
Infant/Toddler lead or co-teacher
Preschool lead or co-teacher
Family childcare provider
Early childhood community agency service provider or home visitor
Early childhood curriculum specialist

AS-T TRANSFER MAJOR

Program Requirements		Units
CHDV 100	Child Growth and Development	3
CHDV 101	Principles and Practices of Teaching Young Children	3
CHDV 105	Observation and Assessment	3
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 Inclusion	1
CHDV 115	Child, Family, and Community	3
CHDV 120	Health, Safety, and Nutrition	3
CHDV 172	Teaching in a Diverse Society	3
CHDV 185	Introduction to Curriculum	3
CHDV 201	Practicum in Early Childhood Education	4
TOTAL UNITS		**26**

Early Inclusion Teacher

This program includes a selection of courses that provide academic preparation for a teaching career 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 40 units listed in this section enable students to complete an Early Inclusion Teacher Certificate of Achievement.

Students also have the option to earn an Associate in Science Degree in Child Development by completing the 40 units for this Certificate and the General Education courses required by the college.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CHDV 99	Preparation for Child Development Majors	0.5
CHDV 100	Child Growth and Development	3
CHDV 103	Infant and Toddler Development	3
CHDV 104	Guidance for Young Children	3
CHDV 105	Observation and Assessment	3
	and	
* CHDV 105C	Observation, Assessment, and Participation Lab: Early Inclusion	1
CHDV 110	Introduction to Special Education	3
CHDV 112	Early Intervention and Inclusion	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Health, Safety, and Nutrition	3
CHDV 152A	Environmental Rating Scale for Early Childhood Settings	1.5
	or	
CHDV 152B	Environmental Rating Scale for Infant/Toddler Settings	1.5
CHDV 185	Introduction to Curriculum	3
CHDV 201	Practicum in Early Childhood Education	4
*+CHDV 204	Advanced Practicum in Early Childhood Education: Inclusive Setting	3
Electives (Select 3 units)		
CHDV 101	Principles and Practices of Teaching Young Children	3
CHDV 102	Working with Parents and Families	3
CHDV 106	Infant and Toddler Care and Curriculum	3
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 142	Using Sign in the Early Childhood Setting	0.5
CHDV 145	Understanding Child Abuse and Family Violence	3
CHDV 172	Teaching in a Diverse Society	3
TOTAL UNITS		**40**

* CHDV 105C and CHDV 204 placement for observation and supervised field experience must be in a classroom with children with identified disabilities and IFSP or IEP.

+ CHDV 204 should be taken in the last semester for this certificate or A.S. degree major program. Students must have completed, or be concurrently enrolled in all necessary classes required for this certificate during the semester they are enrolled in CHDV 204.

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 40 units listed in this section enable students to complete an Infant/Toddler Teacher Certificate.

Students also have the option to earn an Associate in Science Degree in Child Development by completing 40 units for this Certificate and the General Education courses required by the college.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CHDV 99	Preparation for Child Development Majors	0.5
CHDV 100	Child Growth and Development	3
CHDV 103	Infant and Toddler Development	3
CHDV 104	Guidance for Young Children	3
CHDV 105	Observation and Assessment and	3
* CHDV 105B	Observation, Assessment, and Participation Lab: Infant/Toddler	1
CHDV 106	Infant and Toddler Care and Curriculum	3
CHDV 115	Child, Family, and Community	3
CHDV 120	Health, Safety, and Nutrition	3
CHDV 142	Using Sign in the Early Childhood Setting	0.5
CHDV 152B	Environmental Rating Scale for Infant/Toddler Settings	1.5
CHDV 185	Introduction to Curriculum	3
CHDV 201	Practicum in Early Childhood Education	4
*+CHDV 203	Advanced Practicum in Early Childhood Education: Infant/Toddler	3
Electives (Select 5.5 units)		
CHDV 101	Principles and Practices of Teaching Young Children	3
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 110	Introduction to Special Education	3
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/ COMM 144	Exploring the Effects of Media on Young Children	0.5
CHDV 145	Understanding Child Abuse and Family Violence	3
TOTAL UNITS		**40**

* CHDV 105B and 203 placement for observation and supervised field experience must be in a classroom with infants or toddlers.

+ CHDV 203 should be taken in the last semester for this certificate or A.S. degree major program. Students must have completed, or be concurrently enrolled in all necessary classes required for this certificate during the semester they are enrolled in CHDV 203.

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 ages three to six.

The 40 units listed in this section enable students to complete a Preschool Teacher Certificate.

Students also have the option to earn an Associate in Science Degree in Child Development by completing 40 units for this Certificate and the General Education courses required by the college.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CHDV 99	Preparation for Child Development Majors	0.5
CHDV 100	Child Growth and Development	3
CHDV 101	Principles and Practices of Teaching Young Children	3
CHDV 104	Guidance for Young Children	3
CHDV 105	Observation and Assessment and	3
* CHDV 105A	Observation, Assessment, and Participation Lab: Preschool	1
CHDV 115	Child, Family, and Community	3
CHDV 120	Health, Safety, and Nutrition	3
CHDV 152A	Environmental Rating Scale for Early Childhood Settings	1.5
CHDV 185	Introduction to Curriculum	3
CHDV 201	Practicum in Early Childhood Education	4
*+CHDV 202	Advanced Practicum in Early Childhood Education: Preschool	3
Electives (Select 9 units)		
CHDV 108	Developmentally Appropriate Principles and Practices	1
CHDV 110	Introduction to Special Education	3
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 142	Using Sign in the Early Childhood Setting	0.5
CHDV/ COMM 144	Exploring the Effects of Media on Young Children	0.5
TOTAL UNITS		**40**

* CHDV 105A and 202 placement for observation and supervised field experience must be in a classroom with preschool age children.

+ CHDV 202 should be taken in the last semester for this certificate or A.S. degree major program. Students must have completed, or be concurrently enrolled in all necessary classes required for this certificate during the semester they are enrolled in CHDV 202.

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 99	Preparation for Child Development Majors	0.5
CHDV 100	Child Growth and Development	3
CHDV 104	Guidance for Young Children	3
CHDV 115	Child, Family, and Community	3
CHDV 180	School-Age Development	3
CHDV 190	Curriculum for the School-Aged Child	3
TOTAL UNITS		**15.5**

COURSE OFFERINGS

CHDV 99 Preparation for Child Development Majors (0.5)
½ hour lecture
Prepares Child Development majors to successfully complete child development course work at the 100 level and higher. Introduces the concepts of APA writing and format, Child Development department requirements for observations and lesson plans, skills to develop an online professional portfolio, and creating a degree completion plan. It is strongly recommended that students complete this course in the first semester of enrollment in a Child Development program.

CHDV 100 Child Growth and Development (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID CDEV 100
Introductory course that examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. There will be an emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences and analyze characteristics of development at various stages.

See Catalog addendum at http://www.palomar.edu/catalog

CHDV 101 Principles and Practices of Teaching Young Children (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID ECE 120
An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all young children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics, and professional identity.

CHDV 102 Working with Parents and Families (3)
3 hours lecture
Transfer acceptability: *CSU*
Establishes the roles of preschool teachers, child-care providers, and early childhood administrators as effective partners with parents by developing a family-centered approach to parent involvement. Examines cultural and developmental diversity in relation to parent and family interactions and contacts. Develops skills and techniques in familial involvement including: communication, home visits, conferences, parent education, and group contacts with parents.

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 and Assessment (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*
C-ID ECE 200
Focuses on the appropriate use of a variety of assessment and observation strategies, such as recording methods, rating systems, portfolios, and multiple assessment tools to document child development and behavior. Child observations will be conducted and analyzed in a variety of age ranges, including infant/toddler, preschool, early elementary and/or in early intervention settings.

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 (3 to 5 years) 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 (0 to 3 years) 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 Inclusion (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 (0 to 5 years) 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*
Designed to introduce developmentally appropriate practices (DAP) and early learning standards (ELS). 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. This course does not focus on classroom teaching strategies specifically, rather it is an overview of the special education system in the US.

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*
C-ID CDEV 110
An examination of the developing child in a societal context that focuses on the interrelationships of family, school, and community and emphasizes historical and socio-cultural factors. The processes of socialization and identity development will be highlighted, focusing on understanding a holistic approach to child development.

CHDV 120 Health, Safety, and Nutrition (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID ECE 220
Introduction to the laws, regulations, standards, policies and procedures, and early childhood curriculum related to child health, safety, and nutrition. The key components that ensure physical health, mental health, and safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. Focus on integrating the concepts into everyday planning and program development.

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 for young children birth through age 8. Students will learn effective use of songs, movement, and instruments that enhance the teaching-learning environment. These include developing strategies for facilitating music and movement activities and integrating those activities throughout the curriculum.

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. Focus is on literacy development, literature and language development for children birth to age 8, although literature for children ages 8-16 is covered.

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 young 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, as well as benefits to development. Techniques for addressing media consumption with children, parents and families, and methods for effectively using media will be examined.

CHDV 145 Understanding Child Abuse and Family Violence (3)
3 hours lecture
Transfer acceptability: *CSU*
Identify, prevent, report, assess, and intervene in cases of child abuse and neglect, domestic violence and community violence. Includes the history of child maltreatment, contemporary laws, mandated reporting, advocacy, and use of community services and agencies that pertain to abuse and neglect. Understanding familial and environmental factors that contribute to child abuse, as well as critical thought about prevention and intervention techniques.

CHDV 150 Advanced Administration and Management for Early Childhood Directors (3)
3 hours lecture
Prerequisite: *CHDV 100 and CHDV 115*
Recommended preparation: *Currently teaching or supervising in a preschool or childcare setting.*
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. Partially fulfills 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 152A Environmental Rating Scale for Early Childhood Settings (1.5)
1½ hours lecture
Transfer acceptability: *CSU*
An overview of the Environmental Rating Scale for early childhood settings (ECERS-R). Self-study and assessment methods for quality environments will be explored. Application of the rating scale will be emphasized.

CHDV 152B Environmental Rating Scale for Infant/Toddler Settings (1.5)
1½ hours lecture
Transfer acceptability: *CSU*
An overview of the Environmental Rating Scale for infant/toddler settings (ITERS-R). Self-study and assessment methods for quality environments will be explored. Application of the rating scale will be emphasized.

CHDV 152C Environmental Rating Scale for Family Child Care (1.5)
1½ hours lecture
Transfer acceptability: *CSU*
An overview of the Environmental Rating Scale for family child care settings (FCCERS). Self-study and assessment methods for quality environments will be explored. Application of the rating scale will be emphasized.

CHDV 152D Environmental Rating Scale for School Age Care (1.5)
1½ hours lecture
Transfer acceptability: *CSU*
An overview of the Environmental Rating Scale for school-age care settings (SACERS). Self-study and assessment methods for quality environments will be explored. Application of the rating scale will be emphasized.

See Catalog addendum at http://www.palomar.edu/catalog

CHDV 155 Advanced Supervision for Early Childhood Directors (3)
3 hours lecture
Prerequisite: *CHDV 100 and CHDV 115*
Recommended preparation: *Currently teaching or supervising in a preschool or childcare setting.*
Transfer acceptability: *CSU*
Application of supervisory techniques that generate productive staff supervision in early childhood settings, including staff motivation, staff benefits, team building, leadership skills, and situational leadership. Partially fulfills the requirement for administration for the Site Supervisor and Program Director Child Development Permits issued 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*
C-ID ECE 230
Examines the development of social identities in diverse societies including theoretical and practical implications affecting young children, families, programs, teaching, education and schooling. Culturally relevant and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Social and emotional learning and conflict resolution is explored as a part of this process. Involves self-reflection of one's own understanding of educational principles in integrating bias in order to better inform teaching practices and/or program development. Examines issues of diversity in areas including, but not limited to: race, ethnicity, gender, ability, family structure, sexuality, and religion.

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 School-Age Development (3)
3 hours lecture
Transfer acceptability: *CSU*
Designed to prepare students to work in educational and childcare settings, by focusing on the development of children ages 5 through 12. 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 Introduction to Curriculum (3)
3 hours lecture
Prerequisite: *Completion of, or concurrent enrollment in CHDV 105*
Recommended preparation: *A minimum of 12 Child Development units*
Transfer acceptability: *CSU*
C-ID ECE 130
Presents an overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age 6. Students will examine a teacher's role in supporting development and engagement for all young children. Provides strategies for developmentally-appropriate practice based on observation and assessments across the curriculum, including pedagogical philosophies, curricular content areas, play and creativity, guidance, and development of social-emotional, communication, and cognitive skills.

CHDV 190 Curriculum for the School-Age Child (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of programs and activity planning for school-age children (5-12), including both before and after school curriculum and activities for groups and individuals of various developmental levels in the school-age range.

CHDV 195 Adult Supervision/Mentor Teacher Preparation (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in CHDV 100, and 115, completion of, or concurrent enrollment in CHDV 152A or CHDV 152B or CHDV 152C or CHDV 152D*
Recommended Preparation: *Currently teaching in a preschool or child care setting in the role of lead teacher, head teacher, or other supervisory capacity.*
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: *Pass/No Pass grading*
Transfer acceptability: *CSU*
Workshop to provide updates in knowledge and skills related to cultural arts for use in child development applications. Topics could include, but are not limited to, curriculum, materials and environments, and play. May include current and historical information related to cultural arts in relation to 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: *Pass/No Pass grading*
Transfer acceptability: *CSU*
Workshop will provide current knowledge and skills in topics related to the health, safety, and/or nutrition of young children. Topics may include, but are not limited to: infant, child, and adolescent health, safety, and/or nutrition; food service; communicable disease transmission and prevention; pediatric CPR and first aid; injury control; outdoor environments; physical fitness; childhood obesity; child mental health and social and behavioral wellness. May include speakers, seminars, and in service training in current aspects of child development.

CHDV 197C Child Development Workshop: Professional Development in Early Childhood 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: *Pass/No Pass grading*
Transfer acceptability: *CSU*
Workshop will provide current knowledge and skills related to professional education for early childhood educators and administrators, 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: *Pass/No Pass grading*
Transfer acceptability: *CSU*
Workshop to provide skills and education in parenting. Topics may include, but are not limited to: family development and structure, communication and problem solving, co-parenting, divorce, rhythm and routines, guidance, and/or parenting styles. Upon approval, workshops in this area may satisfy court-mandated parenting requirements.

CHDV 201 Practicum in Early Childhood Education (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CHDV 115, 185, or concurrent enrollment in CHDV 115, 185*
For students seeking a supervised field experience course for Master Teacher or Site Supervisor permit issued by the State of California Commission on Teacher Credentialing under option 2, a Bachelor's degree in any field and CHDV 100, 115, and 6 units of CHDV course work.
Transfer acceptability: *CSU*
C-ID ECE 210
Students will practice and demonstrate developmentally appropriate early childhood program planning and teaching competencies under the supervision of Palomar College Child Development Center or a designated site with a mentor teacher approved by the California Early Childhood Mentor Program, upon placement by the Child Development department. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children.

CHDV 202 Advanced Practicum in Early Childhood Education: Preschool (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *Completion of CHDV 201 and a minimum grade of 'C' or concurrent enrollment in CHDV 99 , CHDV 104 , CHDV 105A , CHDV 120 , CHDV 152A , and CHDV 108 , or CHDV 110 , or CHDV 125 , or CHDV 130 , or CHDV 135 , or CHDV 140 , or CHDV 142 , or CHDV 144/COMM 144*
Transfer acceptability: *CSU*
Building on skills developed in CHDV 201, students will be further prepared to teach in various types of preschool programs, with children 3-5 years old. Students will create and 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 203 Advanced Practicum in Early Childhood Education: Infant/Toddler (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *Completion of CHDV 201 and a minimum grade of 'C' or concurrent enrollment in CHDV 99 , CHDV 103 , CHDV 104 , CHDV 105B , CHDV 106 , CHDV 120 , CHDV 142 , CHDV 152B , and CHDV 101 , or CHDV 108 , or CHDV 110 , or CHDV 125 , or CHDV 130 , or CHDV 135 , or CHDV 140 , or CHDV 144/COMM 144 , or CHDV 145*
Transfer acceptability: *CSU*
Building on skills developed in CHDV 201, students will be further prepared to teach in various types of infant/toddler programs with children 0-36 months old. Students will create and implement developmentally appropriate lesson plans, curriculum planning, instructional methods, observational methods, guidance techniques, and activities for young children in a supervised infant/toddler 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 204 Advanced Practicum in Early Childhood Education: Inclusive Setting (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *Completion of CHDV 201 and a minimum grade of 'C' or concurrent enrollment in CHDV 99 , CHDV 103 , CHDV 104 , CHDV 105C , CHDV 110 , CHDV 112 , CHDV 120 , CHDV 152A or CHDV 152B , and CHDV 101 , or CHDV 102 , or CHDV 106 , or CHDV 108 , or CHDV 142 , or CHDV 145 , or CHDV 172*
Transfer acceptability: *CSU*
Building on skills developed in CHDV 201, students will be further prepared to teach in various types of inclusive early childhood programs. Students will create and implement developmentally appropriate lesson plans, curriculum planning, instructional methods, observational methods, guidance techniques, and activities for young children with identified needs in a supervised inclusive 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 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*
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: H-201

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
Note: *Corresponds to two years of high school study.*
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 102 Chinese II (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in CHIN 101 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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in CHIN 102 or three years of high school Mandarin Chinese*
Transfer acceptability: *CSU; UC*
This course is the third semester of Mandarin 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. Course combines in-class instruction with self-paced study in the World Languages Laboratory. Class is largely conducted in Chinese.

Cinema (CINE)

See also Digital Broadcast Arts and Journalism

Contact the Media Studies Department for further information.
(760) 744-1150, ext. 2440
Office: P-31
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/DBA 125	Beginning Film and Video Field Production	3
CINE/DBA 225	Intermediate Film and Video Field Production	3
Electives (Select 6 units)		
CINE 110	Documentary Film	3
CINE/DBA 115	Creative Writing for TV/Cinema	3
CINE 122	Identity in American Film	3
CINE 296	Special Projects	1, 2, 3
DBA 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 film. Weekly film screenings will investigate the use of symbolism, characterization, imagery, and uses of realism and fantasy in motion picture. Analysis of significant films will be in terms of thematic coherence, structural unity, technical achievement, and visual beauty. Also explored is how the film business influences cinema as an art form. 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
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 Documentary Film (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of the complete spectrum of documentary film including actualities, travel records, political propaganda, newsreels, historical, ethnographic, and archival films and those that make a personal poetic statement. The contributions of important filmmakers including Ken Burns, Robert Flaherty, John Grierson, Barbara Kopple, Ricky Leacock, Albert and David Maysles, Michael Moore, D.A. Pennebaker, and Frederick Wiseman will be discussed. Significant 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 DBA 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*
Film criticism refers to the serious and detailed analysis of film. Several critical approaches, i.e. auteur, genre, realism, feminism, will be studied and used to analyze film. These approaches explore film and its meaning through the historical development of the medium, from filmmaking's technical components, by relating a film or group of films to the social and cultural environment of the time, by focusing on the work in terms of its emotional and psychological impact on the viewer and how it is influenced by the nature of the film industry and financial considerations. We will recognize the collaborative nature of the medium as well as the significance of the individual artist to a particular film or group of films. Films will be screened weekly in class.

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 123 Queer Cinema (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of how historical and cultural conditions have shaped the cinema's depictions of gay men, lesbians, bisexuals, and the transgendered, and how these "queer" subjects and communities have responded through viewing practices and alternative film and video production.

CINE 125 Beginning Film and Video Field Production (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *CINE 100 or DBA 100L*
Note: *Cross listed as DBA 125*
Transfer acceptability: *CSU; UC – CINE/DBA 125 and 225 combined: maximum credit, one course*
A study of the basic techniques of field production using Super 8 or 16mm film 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 narrative storytelling for the screen.

CINE 170 Introduction to Video Editing (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DBA 170; may not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Covers the technical and theoretical aspects of film and video editing. Provides an introduction to the basic techniques, elements of editing language, the various technical processes used, introduction to Final Cut Pro software, as well as the related skills necessary for editing digital media.

CINE 225 Intermediate Film and Video Field Production (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CINE/DBA 125*
Note: *Cross listed as DBA 225*
Transfer acceptability: *CSU; UC – CINE/DBA 125 and 225 combined: maximum credit, one course*
Principles, techniques, and theory of narrative and documentary filmmaking using digital video, Super 8 mm or 16mm film equipment. Theory and practice of nonlinear editing.

CINE 270 Digital Video Editing (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DBA 270*
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 Adobe Premiere software program. Application of professional operational and aesthetic editing principles.

CINE 275 Avid Editing for Television and Film (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 270*
Note: *Cross listed as DBA 275*
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.

CINE 296 Special Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in CINE 115/DBA 115 or CINE 125/DBA 125*
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, Digital Broadcast Arts, and Journalism

Contact the Media Studies Department for further information.
(760) 744-1150, ext. 2440
Office: P-31
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	Introduction to Public Relations	3
GCIP 149	Page Layout and Design I	3
JOUR 101	Multimedia Writing and Reporting	3
JOUR 105	Multimedia News Writing and Production	3
DBA/ENTT 120	Digital Television Production	3
TOTAL UNITS		**15**

COURSE OFFERINGS

COMM 100 Introduction to Mass Communication (3)
3 hours lecture
Transfer acceptability: *CSU; UC – COMM 100 and 105 combined: maximum credit, one course*
C-ID JOUR 100
A multi media approach to a comparative survey of communication in studying the history, structure, economic and social impact of television, cinema, radio, journalism, Internet and new forms of communication.

COMM 104 Introduction to Public Relations (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID JOUR 150
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 young 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, as well as benefits to development. Techniques for addressing media consumption with children, parents and families, and methods for effectively using media will be examined.

Computer Science and Information Technology - Computer Science (CSCI)

See also CSIT - Information Technology, CSIT - Networking, and CSIT - Web Technology

Contact the Computer Science and Information Technology Department for further information.
(760) 744-1150, ext. 2387
Office: MD-275
http://www.palomar.edu/csit

Associate in Science Degrees -

AS 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).
- 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. 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. See a Counselor for additional university transfer requirements in this major.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
CSCI 112	Programming Fundamentals I	4
CSCI 114	Programming Fundamentals II	4
CSCI 210	Data Structures	4
CSCI 212	Machine Organization and Assembly Language	4
CSCI 222	C++ and Object-Oriented Programming	4
Electives (Select 2 courses)		
CSCI 130	Linux Fundamentals	3
CSCI 230	Java GUI Programming	3
CSCI 235	Android Development	3
CSCI 260	Video Game Programming I	3
CSCI 275	iOS Development	3
MATH 245	Discrete Mathematics	3
TOTAL UNITS		**26**

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. 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
CSCI 112	Programming Fundamentals I	4
CSCI 114	Programming Fundamentals II	4
CSCI 210	Data Structures	4
CSCI 212	Machine Organization and Assembly Language	4
CSCI 222	C++ and Object-Oriented Programming	4
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	3
CSCI 261	Video Game Programming II	3
TOTAL UNITS		**34**

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	3
CSCI 261	Video Game Programming II	3
TOTAL UNITS		**14**

COURSE OFFERINGS

CSCI 112 Programming Fundamentals I (4)
3½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU; UC*
Introduction to the basic concepts of Computer Science, the fundamental techniques for problem solving, and the software development process. Includes the syntax and semantics of the C programming language focusing on basic control structures, data types, and input/output.

CSCI 114 Programming Fundamentals II (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of "C" in CSCI 112*
Transfer acceptability: *CSU; UC*
Object-oriented programming in Java, focusing on classes, instances, methods, interfaces, encapsulation, overloading, file I/O, inheritance, polymorphism, and exception handling.

CSCI 130 Linux Fundamentals (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 114*
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 Assembly Language (4)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 114*
Transfer acceptability: *CSU; UC*
An introduction to Assembly 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)
3½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 114*
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 114*
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 235 Android Development (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 114*
Transfer acceptability: *CSU*
Applied Java programming to mobile Android phones utilizing the Android Software Development Kit (SDK). Assignments and programs will specifically address the basic aspects of developing applications using the Android SDK.

CSCI 260 Video Game Programming I (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 222*
Transfer acceptability: *CSU*
Introduction to the programming of video games. Course will explore 3D game development with the current version of DirectX. Students learn how to create 3D games as well as 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 (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 222*
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 272 Objective-C for Mac and IOS (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 114*
Transfer acceptability: *CSU*
Prepares students for application development on the iOS platform.

CSCI 275 iOS Development (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSCI 114*
Transfer acceptability: *CSU*
Focus on the Swift programming language and the tools and APIs required to build applications for the iOS platform. Includes user interface designs for iOS mobile devices and unique user interactions using multitouch technologies.

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*
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 Technology - Information Technology (CSIT)

See also CSIT - Computer Science
CSIT - Networking, and CSIT - Web Technology

Contact the Computer Science and Information Technology Department for further information.
(760) 744-1150, ext. 2387
Office: MD-275
http://www.palomar.edu/csit

Associate in Science Degrees -

AS 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

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, and database design. See a counselor for additional university transfer requirements in this major.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CSIT 105	Computer Concepts and Applications	3
CSIT 120	Computer Applications	3
CSWB 110	Web Site Development with HTML5/CSS3	3
CSWB 120	JavaScript	3
CSIT 150	Introduction to SQL	3
	or	
CSIT 160	Database Management Systems using Oracle	3
CSIT 180	C# Programming I	3
CSIT 280	C# Programming II	3
CSWB 150	PHP with MySQL	3
	or	
CSWB 210	Active Server Pages	3
CSWB 170	Java for Information Technology	3
	or	
CSIT 170	Visual Basic I	3

Electives (Select 1 course)

CSWB 130	Mobile Web Application Development	3
CSWB 140	Ruby on Rails Programming	3
CSWB 220	Advanced JavaScript	3
CSNT 111	Networking Fundamentals	3
CSIT 270	Visual Basic II	3
TOTAL UNITS		**30**

Information Technology A.A. Degree Major or Certificate of Achievement is also listed in Computer Science and Information Technology – Web Technology.

COURSE OFFERINGS

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*
C-ID ITIS 120
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
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 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 125 Computer Information Systems (3)
2 hours lecture - 3 hours laboratory
Recommended Preparation: *CSIT 105*
Transfer acceptability: *UC/CSU*
C-ID ITIS 120
Examination of information systems and their role in business. Focus on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware and software components. Application of these concepts and methods through hands-on projects developing computer-based solutions to business problems.

CSIT 135 Access (3)
2 hour lecture - 3 hours laboratory
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 145 Programming for Information Systems (3)
2 hours lecture - 3 hours laboratory
Recommended Preparation: *CSIT 105 or CSIT 125*
Transfer acceptability: *CSU*
C-ID ITIS 130
Fundamental concepts of application development. Students will learn the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs. Program development will incorporate the program development life cycle; gathering requirements, designing a solution, implementing a solution in a programming language, and testing the completed application.

CSIT 146 Systems Analysis and Design (3)
(Formerly CSIT 290)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU; UC*
Introduction to the planning, analysis, design and implementation of modern information systems. This course covers the concepts, skills, methodologies, techniques, tools, and perspectives essential for systems analysts to successfully develop information systems.

CSIT 148 C Programming using RobotC and Mindstorms (3)
2 hours lecture - 3 hours laboratory
Recommended Preparation: *CSIT 105*
Transfer acceptability: *CSU*
Introduction to Robotics and Robotic programming using RobotC and Lego Mindstorms. Focus will be fundamental problem solving skills, project management and planning, logic and design techniques while creating behavior-based, event driven robotic programs in the C programming language.

CSIT 150 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.

CSIT 160 Database Management Systems using Oracle (3)
2½ hours lecture - 1½ hours laboratory
Recommended Preparation: *CSIT 105 and CSIT 125*
Transfer acceptability: *CSU*
An introduction to relational database concepts including the design and creation of database structures using the Oracle Database Management System to store, retrieve, update and display data. Additionally, database management theories and ideas are covered using the Oracle Database Management System.

CSIT 170 Visual Basic I (4)
2 hours lecture - 3 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 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 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 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*
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 Technology - Networking (CSNT)

See also CSIT - Computer Science
CSIT - Information Technology, and CSIT - Web Technology

Contact the Computer Science and Information Systems Department for further information.
(760) 744-1150, ext. 2387
Office: MD-275
http://www.palomar.edu/csit

Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).
- Computer Network Administration with Emphasis: Cisco
- Computer Network Administration with Emphasis: Microsoft
- Computer Network Administration with Emphasis: Linux

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Computer Network Administration with Emphasis: Cisco
- Computer Network Administration with Emphasis: Microsoft
- Computer Network Administration with Emphasis: Linux

PROGRAMS OF STUDY

Computer Network Administration with Emphasis: Cisco

This program prepares the student for employment in the field of Computer Networking. The focus is on developing skills in a combination of the fundamental and basic network technologies produced by Cisco. 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	3
CSNT 160	Cisco Networking Fundamentals	3
CSNT 161*	Cisco Router Configuration	3
CSNT 260	Cisco Advanced Routing and Switching	3
CSNT 261	Cisco Wide Area Network Design and Support	3
CSNT 180	Wireless Networking	3
CSNT 181	Hacker Prevention/Security	3
CSNT 280	Computer Forensics Fundamentals	3
TOTAL UNITS		**28**

* Note: CSNT 160 is a prerequisite for CSNT 161

See Catalog addendum at http://www.palomar.edu/catalog

Computer Network Administration with Emphasis: Linux

This program prepares the student for employment in the field of Computer Networking with an emphasis on the Linux Operating System. The focus is on developing skills in a combination of the network technologies produced by Linux/Unix. Specific learning outcomes include developing team dynamics in the following skills: Linux Operating System, Linux Administration and Security, Linux Scripting, 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. Linux will be the primary operating system learned.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	3
CSCI 130	Linux Fundamentals	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 280	Computer Forensics Fundamentals	3
TOTAL		**25**

Computer Network Administration with Emphasis: Microsoft

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. 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, Active Directory, Network Infrastructure, Exchange Server, Routing Principles and Configuration, and Maintaining a Corporate Network. Students will be prepared to take specific industry certification exams related to Microsoft, CompTia, and Security.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CSNT 110	Hardware and O.S. Fundamentals	4
CSNT 111	Networking Fundamentals	3
CSNT 120	Windows Client and Microsoft Office Deployment	3
CSNT 121	Windows Server	3
CSNT 122	Windows Systems Administration	3
CSNT 124	Implementing a Microsoft Desktop Application Environment	3
CSNT 180	Wireless Networking	3
CSNT 181	Hacker Prevention/Security	3
CSNT 280	Computer Forensics Fundamentals	3
TOTAL UNITS		**28**

COURSE OFFERINGS

CSNT 110 Hardware and O.S. Fundamentals (4)
3½ hours lecture - 1½ hours laboratory
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. Maps to Comptia A+ Industry Exam.

CSNT 111 Networking Fundamentals (3)
2 hours lecture - 3 hours laboratory
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 and Microsoft Office Deployment (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 110 and 111*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to install and configure Microsoft Windows Client (current version) on stand-alone computers and on client computers that are part of a network. Provides the knowledge and skills to deploy Microsoft Office.

CSNT 121 Windows Server (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 111*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to install, configure, and administer a Microsoft Windows Server (current version) 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 122 Windows Systems Administration (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 111. Completion of, or concurrent enrollment in CSNT 110*
Transfer acceptability: *CSU*
Provides the knowledge and skills required to build, maintain, troubleshoot, and support server hardware and software technologies. Students will Identify environmental issues; understand and comply with disaster recovery and physical/software security procedures; become familiar with industry terminology and concepts; understand server roles/specializations and interaction within the overall computing environment.

CSNT 124 Implementing a Microsoft Desktop Application Environment (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 121. Completion of, or concurrent enrollment in CSNT 121*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to design and prepare the desktop application environment. Design and implement a presentation virtualization environment, design and implement an application virtualization environment, deploy and manage the application environment, and design business continuity for the desktop and application environment.

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*
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*
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*
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*
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 260 Cisco Advanced Routing and Switching (3)
2½ hours lecture - 2 hours laboratory
Prerequisite: *A minimum grade of 'C' in CSNT 161*
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*
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.

CSNT 280 Computer Forensics Fundamentals (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Introduces methods used to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools.

Computer Science and Information Technology - Web Technology (CSWB)

See also CSIT - Computer Science
CSIT - Information Technology, and CSIT - Networking

Contact the Computer Science and Information Systems Department for further information.
(760) 744-1150, ext. 2387
Office: MD-275
http://www.palomar.edu/csit

Associate in Science Degrees -

AS 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).
• Web Developer with Emphasis in Java/Open Source
• Web Developer with Emphasis in Windows

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, and database design. See a counselor for additional university transfer requirements in this major.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

CSIT 105	Computer Concepts and Applications	3
CSIT 120	Computer Applications	3
CSWB 110	Web Site Development with HTML5/CSS3	3
CSWB 120	JavaScript	3
CSIT 150	Introduction to SQL	3
	or	
CSIT 160	Database Management Systems using Oracle	3
CSIT 180	C# Programming I	3
CSIT 280	C# Programming II	3
CSWB 150	PHP with MySQL	3
	or	
CSWB 210	Active Server Pages	3
CSWB 170	Java for Information Technology	3
	or	
CSIT 170	Visual Basic I	3

Electives (Select 1 course)		
CSWB 130	Mobile Web Application Development	3
CSWB 140	Ruby on Rails Programming	3
CSWB 220	Advanced JavaScript	3
CSNT 111	Networking Fundamentals	3
CSIT 270	Visual Basic II	3
TOTAL UNITS		**30**

Information Technology A.A. Degree Major or Certificate of Achievement is also listed in Computer Science and Information Technology – Information Technology.

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	Web Site Development with HTML5/CSS3	3
CSWB 120	JavaScript	3
CSWB 150	PHP with MySQL	3
CSWB 170	Java for Information Technology	3
Electives (Select 1 course)		
CSWB 130	Mobile Web Application Development	3
CSWB 220	Advanced JavaScript	3
CSIT 150	Introduction to SQL	3
CSIT 160	Database Management Systems using Oracle	3
TOTAL UNITS		**15**

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	Web Site Development with HTML5/CSS3	3
CSWB 120	JavaScript	3
CSWB 130	Mobile Web Application Development	3
CSWB 210	Active Server Pages	3
CSIT 180	C# Programming I	3
TOTAL UNITS		**15**

COURSE OFFERINGS

CSWB 110 Web Site Development with HTML5/CSS3 (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
A foundation course for Internet/Intranet technologies. Skills required to develop and publish web sites utilizing HTML, including using HTML tables, web page forms, and basic CSS (Cascading Style Sheets).

CSWB 120 JavaScript (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB 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 Mobile Web Application Development (3)
2 hours lecture - 3 hours laboratory
Recommended preparation: *CSWB 120*
Transfer acceptability: *CSU*
Mobile Web-based application development using advanced features of HTML5, JavaScript/JQuery, and CSS.

CSWB 140 Ruby on Rails Programming (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB 110*
Transfer acceptability: *CSU*
Provides the knowledge and skills necessary to use the Ruby on Rails (RoR) web application framework to code and deploy web applications. Topics of study include working with layouts; using controllers and models; developing with Scaffolding and REST; presenting models with forms; managing databases; and using Ajax with Rails.

CSWB 150 PHP with MySQL (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *CSWB 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 Technology (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
Introduction to Java programming with emphasis on the syntax and structure of the Java language. Specific topics will include data types, decision statements, object-oriented programming, arrays, collections and date handling.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 (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 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*
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-135

Associate in Science Degrees -

AS 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

Provide comprehensive education in inspection procedures, California code standards, and interpretation of construction drawings to a diverse constituency for a career in the construction industry.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CI 89	Plumbing Codes	3
CI 90	Mechanical Codes	3
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 125	Plan Reading Technologies	3
CI 130	CalGreen Codes	3
TOTAL UNITS		**27**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

CI 89 Plumbing Codes (3)
3 hours lecture
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 Association of Plumbing and Mechanical Officials (IAPMO) revisions every three years.

CI 90 Mechanical Codes (3)
3 hours lecture
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.

CI 100 Building Codes I (3)
3 hours lecture
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
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
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
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
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 125 Plan Reading Technologies (3)
3 hours lecture
Transfer acceptability: *CSU*
A survey of technologies in the construction inspection industry relating to plan reading. Content includes an introduction to construction plan reading; a review of the standard details and specifications used in the San Diego region; discussions on the various roles of the construction and building inspectors; employment opportunities and certifications; an overview of special inspection requirements; construction scheduling; and when and how often inspections should be performed. Content also includes an introduction to California Title 24 including the building, plumbing, electrical, mechanical, California Green Codes, and an introduction to the Americans with Disabilities Act (ADA).

CI 130 CalGreen Codes (3)
3 hours lecture
Transfer acceptability: *CSU*
Emphasizes the proper interpretation of the California Green Building Code and green building technologies. The scope of the course will provide inspectors, designers and contractors with the latest code requirements and national standards to promote sustainable communities. Topics include site planning and development, energy conservation, storm water pollution prevention and basic sustainability concepts.

See Catalog addendum at http://www.palomar.edu/catalog

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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

In accordance with Board Policy 4103:

COURSE OFFERINGS
Students may earn a maximum of 16 units in Cooperative Education (CE) in any combination of CE 100 or CE 150, not exceeding 8 units per semester. CE 110 is not repeatable.

STUDENT QUALIFICATIONS: In order to participate in cooperative work experience education students shall meet the following requirements:

1. Be a legally indentured or a certified apprentice, an intern, volunteer, or a paid employee.
   AND
2. Have approval of the Cooperative Work Experience Education academic personnel.
   AND
3. 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.
   AND
4. Attend orientation(s) at the beginning of the semester.

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

CE 100 Cooperative Education (1,2,3,4)
1, 2, 3, or 4 hours lecture
Transfer acceptability: *CSU*
Supervised on the job training for all occupational students.
Note: *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.*

CE 110 Cooperative Work Experience-General (2,3)
2 or 3 hours lecture
Transfer acceptability: *CSU*
Supervised on the job training for all students.
Note: *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.*

CE 150 Cooperative Education Internship (2, 3)
10 or 15 hours laboratory
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.

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)
1 hour lecture
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; UC*
Provides the necessary strategies for academic success and the research skills essential for developing a comprehensive transfer plan. Topics will include the transfer process, major selection, student support services, evaluating universities, and clarifying educational goals.

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.

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 148 Managing Stress and Well-Being (3)
3 hours lecture
Transfer acceptability: *CSU*
Investigates the sociological, physiological, and psychological sources of stress and well-being across the lifespan. An examination of how the mind-body relationship is affected by personality, thoughts, life events, and messages received from one?s culture, family, and society will be studied. Students learn mindfulness and stress reduction techniques that resolve stress and anxiety and promote well-being physically, energetically, emotionally, cognitively, socially, and behaviorally.

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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Topics in Counseling. See Class Schedule for specific topic covered. Course title will designate subject covered.

Dance (DNCE)

Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: PAC-112

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
- Dance - Emphasis in Euro-Western Dance
- Dance - Emphasis in General Dance
- Dance - Emphasis in World Dance

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
- Dance - Emphasis in Euro-Western Dance
- Dance - Emphasis in General Dance
- Dance - Emphasis in World Dance

Dance - Emphasis in Euro-Western Dance

This Euro-Western Dance Program prepares the student for employment 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 events. This degree and certificate also prepares dancers for the entertainment industry such as theme park (Disney, Knotts Berry Farm, Legoland, Seaworld, Wild Animal Park), MTV and a range for professional theatrical dance opportunities. 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

DNCE 105	Introduction to Dance History	3
DNCE 140	Dance Improvisation I	1
	or	
DNCE 141	Dance Improvisation II	1
DNCE 145	Choreography I	3
or		
DNCE 146	Choreography II	3
DNCE 165	Production Management	2
DNCE 225	Contemporary Dance Ensemble I	1
	or	
DNCE 226	Contemporary Dance Ensemble II	1
DNCE 280	Student Choreography Production I	2
	or	
DNCE 285	Student Choreography Production II	2

Group I Electives - Ballet/Pointe (Select two courses)

DNCE 115	Ballet I	1
DNCE 116	Ballet II	1
DNCE 210	Ballet III	1
DNCE 211	Ballet IV	1
DNCE 117	Pointe I	1
DNCE 118	Pointe II	1
DNCE 217	Pointe III	1
DNCE 218	Pointe IV	1

Group II Electives - Modern (Select two courses)

DNCE 110	Modern Dance I	1
DNCE 111	Modern Dance II	1
DNCE 205	Modern Dance III	1
DNCE 206	Modern Dance IV	1

Group III Electives - Jazz or Tap (Select two courses)

DNCE 120	Jazz Technique I	1
DNCE 121	Jazz Technique II	1
DNCE 215	Jazz Technique III	1
DNCE 216	Jazz Technique IV	1
DNCE 130	Tap I	1
DNCE 131	Tap II	1
DNCE 230	Tap III	1
DNCE 231	Tap IV	1

Group IV Electives - Production and Ensemble (Select two courses)

DNCE 270	Contemporary Ballet Production I	.5 - 1
DNCE 271	Classical Ballet Production I	0.5 - 1
DNCE 272	Contemporary Ballet Production II	0.5 - 1
DNCE 273	Modern Dance Production I	0.5 - 1
DNCE 274	Contemporary Modern Dance Production I	0.5 - 1

See Catalog addendum at http://www.palomar.edu/catalog

DNCE 275	Modern Dance Production II	0.5 - 1
DNCE 276	Contemporary Modern Dance Production II	0.5 - 1
DNCE 277	Classical Jazz Production I	0.5 - 1
DNCE 278	Modern Jazz Production I	0.5 - 1
DNCE 279	Tap Production I	0.5 - 1
DNCE 282	Classical Ballet Production II	0.5 - 1
DNCE 287	Classical Jazz Production II	0.5 - 1
DNCE 288	Modern Jazz Production II	0.5 - 1
DNCE 289	Tap Production II	0.5 - 1

Group V Electives - Euro-Western (Select two courses)

DNCE 101	Survey of World Dance	3
DNCE 102	Dance on Film	3
DNCE 127	Spanish Flamenco I	.5 - 1
DNCE 128	Spanish Flamenco II	.5 - 1
DNCE 135	Ballroom Dance I	.5 - 1
DNCE 136	Ballroom Dance II	.5 - 1
DNCE/MUS 137	Cuban and Brazilian Drumming I	.5
DNCE/MUS 138	Cuban and Brazilian Drumming II	.5
DNCE 151	Latin Social Dance I	2
DNCE 153	Capoeira: Afro/Brazilian Martial Arts I	.5 - 1
DNCE 154	Capoeira: Afro/Brazilian Martial Arts II	.5 - 1
DNCE 155	Hip Hop I	.5 - 1
DNCE 156	Hip Hop II	.5 - 1
DNCE 158	Hawaiian and Tahitian Dance I	.5 - 1
DNCE 159	Hawaiian and Tahitian Dance II	.5 - 1
DNCE 162	Near and Middle Eastern I	.5 - 1
DNCE 163	Near and Middle Eastern II	.5 - 1
DNCE 190	World Dance Production I	2
TOTAL UNITS		**20 - 26**

Dance - Emphasis in General Dance

This General Dance Program prepares the student for employment in the field of dance and dance-related professions. Both the degree and the certificate are designed as career/technical programs which 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 events. This degree and certificate also prepares dancers for the entertainment industry such as theme park (Disney, Knotts Berry Farm, Legoland, Seaworld, Wild Animal Park), MTV and a range for professional theatrical dance opportunities. 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

DNCE 101	Survey of World Dance	3
DNCE 105	Introduction to Dance History	3
DNCE 145	Choreography I	3
	or	
DNCE 146	Choreography II	3
DNCE 161	Teaching Methods in Dance	3
DNCE 165	Production Management	2
DNCE 280	Student Choreography Production I	1.5 - 2
	or	
DNCE 285	Student Choreography Production II	1.5 - 2

Group I Electives - Ballet/Pointe (Select one course)

DNCE 115	Ballet I	.5 - 1
DNCE 116	Ballet II	.5 - 1
DNCE 210	Ballet III	.5 - 1
DNCE 211	Ballet IV	.5 - 1
DNCE 117	Pointe I	.5 - 1
DNCE 118	Pointe II	.5 - 1
DNCE 217	Pointe III	.5 - 1
DNCE 218	Pointe IV	.5 - 1

Group II Electives - Modern (Select one course)

DNCE 110	Modern Dance I	.5 - 1
DNCE 111	Modern Dance II	.5 - 1
DNCE 205	Modern Dance III	.5 - 1
DNCE 206	Modern Dance IV	.5 - 1

Group III Electives - Afro-Cuban/Brazilian (Select one course)

DNCE 149	Afro-Cuban/Brazilian Dance I	2
DNCE 150	Afro-Cuban/Brazilian Dance II	2
DNCE 249	Afro-Cuban/Brazilian Dance III	2
DNCE 250	Afro-Cuban/Brazilian Dance IV	2

Group IV Electives - Latin Social (Select one course)

DNCE 151	Latin Social Dance I	2
DNCE 152	Latin Social Dance II	2
DNCE 251	Latin Social Dance III	2
DNCE 252	Latin Social Dance IV	2

Group V Electives - Jazz or Tap (Select two courses)

DNCE 120	Jazz Technique I	.5 - 1
DNCE 121	Jazz Technique II	.5 - 1
DNCE 215	Jazz Technique III	.5 - 1
DNCE 216	Jazz Technique IV	.5 - 1
DNCE 130	Tap I	.5 - 1
DNCE 131	Tap II	.5 - 1
DNCE 230	Tap III	.5 - 1
DNCE 231	Tap IV	.5 - 1

Group VI Electives - Near and Middle Eastern or Hawaiian and Tahitian (Select one course)

DNCE 162	Near and Middle Eastern I	.5 - 1
DNCE 163	Near and Middle Eastern II	.5 - 1
DNCE 262	Near and Middle Eastern III	.5 - 1
DNCE 263	Near and Middle Eastern IV	.5 - 1
DNCE 158	Hawaiian and Tahitian Dance I	.5 - 1
DNCE 159	Hawaiian and Tahitian Dance II	.5 - 1
DNCE 258	Hawaiian and Tahitian Dance III	.5 - 1
DNCE 259	Hawaiian and Tahitian Dance IV	.5 - 1

Group VII Electives - General Dance Production and Ensemble (Select two courses)

DNCE 148	Drum and Dance Ensemble I	2
DNCE 248	Drum and Dance Ensemble II	1 - 2
DNCE 190	World Dance Production I	2
DNCE 290	World Dance Production II	1 - 2
DNCE 225	Contemporary Dance Ensemble I	.5 - 1
DNCE 226	Contemporary Dance Ensemble II	.5 - 1
DNCE 270	Contemporary Ballet Production I	.5 - 1
DNCE 272	Contemporary Ballet Production II	.5 - 1
DNCE 271	Classical Ballet Production I	.5 - 1
DNCE 282	Classical Ballet Production II	.5 - 1
DNCE 273	Modern Dance Production I	.5 - 1
DNCE 274	Contemporary Modern Dance Production I	.5 - 1
DNCE 275	Modern Dance Production I II	.5 - 1
DNCE 276	Contemporary Modern Dance Production II	.5 - 1
DNCE 277	Classical Jazz Production I	.5 - 1
DNCE 287	Classical Jazz Production II	.5 - 1
DNCE 278	Modern Jazz Production I	.5 - 1
DNCE 288	Modern Jazz Production II	.5 - 1
DNCE 279	Tap Production I	.5 - 1
DNCE 289	Tap Production II	.5 - 1
DNCE 281	Summer Dance Workshop	1.5 - 2

Group VIII Electives - General Dance (Select two courses)

DNCE 100	Survey of Dance	3
DNCE 102	Dance on Film	3
DNCE 127	Spanish Flamenco I	.5 - 1
DNCE 128	Spanish Flamenco II	.5 - 1
DNCE 135	Ballroom Dance I	.5 - 1

DNCE 136	Ballroom Dance II	.5 - 1
DNCE/MUS 137	Cuban and Brazilian Drumming I	.5
DNCE/MUS 138	Cuban and Brazilian Drumming II	.5
DNCE 140	Dance Improvisation I	.5 - 1
DNCE 141	Dance Improvisation II	.5 - 1
DNCE 153	Capoeira: Afro/Brazilian Martial Arts I	.5 - 1
DNCE 155	Hip Hop I	.5 - 1
DNCE 156	Hip Hop II	.5 - 1
DNCE 255	Hip Hop III	.5 - 1
DNCE 256	Hip Hop IV	.5 - 1
DNCE 170	Pilates (Reg. Trade Mark)	.5 - 1
DNCE/ MUS/TA 173	Musical Theatre Scenes	1
DNCE 281	Summer Dance Workshop	1.5 - 2
TOTAL UNITS		**24 - 35**

Dance - Emphasis in World Dance

This World Dance Program prepares the student for employment in the field of dance and dance-related professions. Both the degree and the certificate are designed as career/technical programs which 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 events. This degree and certificate also prepares dancers for the entertainment industry such as theme park(Disney, Knotts Berry Farm, Legoland, Seaworld, Wild Animal Park), MTV and a range for professional theatrical dance opportunities. 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

DNCE 101	Survey of World Dance	3
DNCE 145	Choreography I	3
DNCE 148	Drum and Dance Ensemble	2
	or	
DNCE 248	Drum and Dance Ensemble II	1 - 2
DNCE 165	Production Management	2
DNCE 190	World Dance Production	2
	or	
DNCE 290	World Dance Production II	1 - 2
DNCE 280	Student Choreography Production I	1.5 - 2

Group I Electives - Afro-Cuban/Brazilian (Select two courses)

DNCE 149	Afro-Cuban/Brazilian Dance I	2
DNCE 150	Afro-Cuban/Brazilian Dance II	2
DNCE 249	Afro-Cuban/Brazilian Dance III	2
DNCE 250	Afro-Cuban/Brazilian Dance IV	2

Group II Electives - Latin Social (Select two courses)

DNCE 151	Latin Social Dance I	2
DNCE 152	Latin Social Dance II	2
DNCE 251	Latin Social Dance III	2
DNCE 252	Latin Social Dance IV	2

Group III Electives - Capoeira (Select one course)

DNCE 153	Capoeira: Afro/Brazilian Martial Arts I	.5 - 1
DNCE 154	Capoeira: Afro/Brazilian Martial Arts II	.5 - 1
DNCE 253	Capoeira: Afro/Brazilian Martial Arts III	.5 - 1
DNCE 254	Capoeira: Afro/Brazilian Martial Arts IV	.5 - 1

Group IV Electives - Drumming (Must complete both courses)

DNCE/MUS 137	Cuban and Brazilian Drumming I	.5
DNCE/MUS 138	Cuban and Brazilian Drumming II	.5
DNCE 237	Cuban and Brazilian Drumming III	.5 - 1
DNCE 238	Cuban and Brazilian Drumming IV	.5 - 1

Group V Electives - Near and Middle Eastern (Select one course)

DNCE 162	Near and Middle Eastern I	.5 - 1
DNCE 163	Near and Middle Eastern II	.5 - 1
DNCE 262	Near and Middle Eastern III	.5 - 1
DNCE 263	Near and Middle Eastern IV	.5 - 1

Group VI Electives - Hawaiian and Tahitian (Select one course)

DNCE 158	Hawaiian and Tahitian Dance I	1.5
DNCE 159	Hawaiian and Tahitian Dance II	1.5
DNCE 258	Hawaiian and Tahitian Dance III	1.5
DNCE 259	Hawaiian and Tahitian Dance IV	1.5

Group VII Electives (Select two courses)

DNCE 102	Dance on Film	3
DNCE 105	Introduction to Dance History	3
DNCE 110	Modern Dance I	.5 - 1
DNCE 111	Modern Dance II	.5 - 1
DNCE 115	Ballet I	.5 - 1
DNCE 116	Ballet II	.5 - 1
DNCE 120	Jazz Technique I	.5 - 1
DNCE 121	Jazz Technique II	.5 - 1
DNCE 127	Spanish Flamenco I	.5 - 1
DNCE 128	Spanish Flamenco II	.5 - 1
DNCE 130	Tap I	.5 - 1
DNCE 131	Tap II	.5 - 1
DNCE 135	Ballroom Dance I	.5 - 1
DNCE 136	Ballroom Dance II	.5 - 1
DNCE 155	Hip Hop I	.5 - 1
DNCE 156	Hip Hop II	.5 - 1
DNCE 227	Spanish Flamenco III	.5 - 1
DNCE 228	Spanish Flamenco IV	.5 - 1
TOTAL UNITS		**23 - 33**

COURSE OFFERINGS

State Regulations (Title 5, Sections 55040-55041) limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Dance have limitations on the number of times a student may enroll. Some Dance courses may be repeated provided student has not reached the limitation for the applicable group of Dance courses. Specific information about enrollment limitations for Dance classes is available at http://www.palomar.edu/schedule/restrictions.htm

Note: Students are screened for level placement in all technique classes the previous semester or the first day of class.

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.

See Catalog addendum at http://www.palomar.edu/catalog

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)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Beginning modern dance techniques with emphasis on movement exploration, alignment, and creativity.

DNCE 111 Modern Dance II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Intermediate dance techniques with emphasis on increasing movement skills and creative range.

DNCE 115 Ballet I (.5 - 1)
1½, 2 or 3 hours laboratory
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)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Continued study of ballet techniques, principles, and terminology. Intermediate level with emphasis on combinations and an enlarged vocabulary of steps and terms.

DNCE 117 Pointe I (.5 - 1)
1½, 2 or 3 hours laboratory
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)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
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 (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level I jazz movement and floor progressions.

DNCE 121 Jazz Technique II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level II jazz movement and floor progressions.

DNCE 124 Beginning Stage Management (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 100*
Note: *Cross listed as ENTT/TA 124*
Transfer acceptability: *CSU; UC*
Introduces students to the practices and techniques of Stage Management. Students will assist a stage manager on a project during the course of the semester. Regular availability on evenings and weekends is required.

DNCE 127 Spanish Flamenco I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Specific elements of Spanish/Flamenco dance styles: castanets, footwork, and arm technique. Students will explore a variety of Flamenco dances from different regions both traditional and modern.

DNCE 128 Spanish Flamenco II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Specific elements of Spanish/Flamenco dance styles: castanets, footwork, and arm technique. Students will explore a variety of Flamenco dances from different regions both traditional and modern.

DNCE 130 Tap I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level I skills in tap dance covering basic and traditional material.

DNCE 131 Tap II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level II skills in tap dance with focus on new trends and styles.

DNCE 135 Ballroom Dance I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Development of beginning social dance techniques concerning both standard and contemporary social dance steps and styling.

DNCE 136 Ballroom Dance II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Intermediate level social dance skills, steps, and styling.

DNCE 137 Cuban and Brazilian Drumming I (.5 - 1)
1½, 2 or 3 hours laboratory
Note: *Cross listed as MUS 137*
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, popular and folkloric; Rumba, Congo (Makuta/Palo), Franco/Haitian (Gaga/Congo Layet) from East and West Cuba. Develop ability to work as a drum ensemble.

DNCE 138 Cuban and Brazilian Drumming II (.5 - 1)
1½, 2 or 3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition*
Note: *Cross listed as 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 140 Dance Improvisation I (.5 - 1)
1½, 2 or 3 hours laboratory
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 (.5 - 1)
1½, 2 or 3 hours laboratory
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 280*
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
Corequisite: *DNCE 285*
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 (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Learning, rehearsing, and performing dances as an outreach to Palomar College, area high schools, and the community.

DNCE 148 Drum and Dance Ensemble I (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
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 (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Beginning level Afro-Cuban/Brazilian movement.

DNCE 150 Afro-Cuban/Brazilian Dance II (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level II Afro-Cuban/Brazilian movement.

DNCE 151 Latin Social Dance I (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
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 (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
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/Brazilian Martial Arts I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
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/Brazilian Martial Arts II (.5 - 1)
1½, 2 or 3 hours laboratory
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 (.5 - 1)
1½, 2 or 3 hours laboratory
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 (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Intermediate level of Hip Hop, an exhilarating class. Designed to introduce students to this unique contemporary dance form.

DNCE 158 Hawaiian and Tahitian Dance I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An exhilarating level one dance 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 (.5 - 1)
1½, 2 or 3 hours laboratory
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 I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An introduction to classical and folkloric dances from the Near and Middle East.

DNCE 163 Near and Middle Eastern II (.5 - 1)
1½, 2 or 3 hours laboratory
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, 2.5)
1, 1½, or 2 hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU*
Principles and methods of organization, operation, promotion, programming, publicity, ticket sales, box offic, public relations, costumes, props, and graphics. Practical experience in college and community dance productions.

See Catalog addendum at http://www.palomar.edu/catalog

DNCE 170 Pilates® (.5 - 1)
1½, 2 or 3 hours laboratory
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
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 190 World Dance Production I (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 205 Modern Dance III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Intermediate dance technique with emphasis on performance skills.

DNCE 206 Modern Dance IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced level modern dance technique with an emphasis on performance skills.

DNCE 210 Ballet III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Ballet techniques, principles, and terminology at the advanced level with emphasis on line, phrasing, endurance, and progressively difficult steps and combinations.

DNCE 211 Ballet IV (.5 - 1)
1½, 2 or 3 hours laboratory
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 (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level III jazz movement and floor progressions.

DNCE 216 Jazz Technique IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level IV jazz dance technique in commercial dance stylizations and rhythms.

DNCE 217 Pointe III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
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)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
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 Contemporary Dance Ensemble I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An initial rehearsal and performance experience in a dance ensemble. Includes preparing multiple works for a variety of different performing opportunities. Generally this would involve corps (group) roles.

DNCE 226 Contemporary Dance Ensemble II (.5 - 1)
1½ - 3 hours laboratory
Transfer acceptability: *CSU; UC*
A second rehearsal and performance experience in a dance ensemble. Includes preparing multiple works for a variety of different performing opportunities. Generally this would involve smaller supporting roles (smaller group work) and solo work.

DNCE 227 Spanish Flamenco III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Study of specific elements of Spanish/Flamenco dance styles: castanets, footwork, and arm technique. Students will explore a variety of Flamenco dances from different regions, both traditional and modern.

DNCE 228 Spanish Flamenco IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
The study of specific elements of Spanish/Flamenco dance styles: castanets, footwork, and arm technique. Students will explore a variety of Flamenco dances from different regions, both traditional and modern.

DNCE 230 Tap III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced skills in tap dance with focus on new trends and styles.

DNCE 231 Tap IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level IV skills in tap dance with focus on new trends and styles.

DNCE 237 Cuban and Brazilian Drumming III (.5-1)
1½ to 3 hours laboratory
Transfer acceptability: *CSU; UC*
The third course in this series focuses on being able to hold supporting roles in ensemble style presentations.

DNCE 238 Cuban and Brazilian Drumming IV (.5-1)
1½ to 3 hours laboratory
Transfer acceptability: *CSU; UC*
The fourth course in the series focuses on being able to hold leading roles in ensemble style presentations as well as supporting roles for the Palomar Drum and Dance Ensemble and Palomar dance classes.

DNCE 248 Drum and Dance Ensemble II (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
A second rehearsal and performance in the Drum and Dance Ensemble. Includes preparing multiple works for a variety of different performing opportunities including world festivals and campus events. Generally this would involve larger supporting roles or small ensemble work.

DNCE 249 Afro-Cuban/Brazilian Dance III (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level III Afro-Cuban/Brazilian movement.

DNCE 250 Afro-Cuban/Brazilian Dance IV (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level IV Afro-Cuban/Brazilian movement.

DNCE 251 Latin Social Dance III (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An exhilarating level III dance 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 252 Latin Social Dance IV (1, 1.5, 2)
½, 1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An exhilarating level IV dance 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 253 Capoeira: Afro/Brazilian Martial Arts III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Through lecture, demonstration and movement participation students will study intermediate level Capoeira.

DNCE 254 Capoeira: Afro/Brazilian Martial Arts IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Through lecture, demonstration and movement participation students will study advanced level Capoeira.

DNCE 255 Hip Hop III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced level of Hip Hop, an exhilarating class designed to introduce students to this unique contemporary dance form.

DNCE 256 Hip Hop IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level IV dance with focus on new trends and styles.

DNCE 258 Hawaiian and Tahitian Dance III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An exhilarating level III dance class teaching 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 259 Hawaiian and Tahitian Dance IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level IV dance technique of 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 262 Near and Middle Eastern III (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Level III study of classical and folkloric dances for the Near and Middle East.

DNCE 263 Near and Middle Eastern IV (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced level IV study of classical and folkloric dances for the Near and Middle East.

DNCE 270 Contemporary Ballet Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach and community events.

DNCE 271 Classical Ballet Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach and special events.

DNCE 272 Contemporary Ballet Production II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach, and special events.

DNCE 273 Modern Dance Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach and special events.

DNCE 274 Contemporary Modern Dance Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach, and special events.

DNCE 275 Modern Dance Production II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach, and special events.

DNCE 276 Contemporary Modern Dance Production II (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and production for dance concerts, outreach and special events.

See Catalog addendum at http://www.palomar.edu/catalog

DNCE 277 Classical Jazz Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach, and special events.

DNCE 278 Modern Jazz Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance performance, outreach, and special events.

DNCE 279 Tap Production I (.5 - 1)
1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts, outreach and special events.

DNCE 280 Student Choreography Production I (1.5, 2)
4½ or 6 hours laboratory
Corequisite: *DNCE 146*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 281 Summer Dance Workshop (1.5, 2)
1 or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition*
Transfer acceptability: *CSU; UC*
Concentrated work in a variety of dance genres. Specific content is composed of various dance styles, techniques and rehearsal/performance opportunities.

DNCE 282 Classical Ballet Production II (.5-1)
1½ - 3 hours laboratory
Transfer acceptability: *CSU; UC*
Further explores the rehearsal and performance experience of a classical ballet. This second experience concentrates on smaller ensemble work and solos, resulting in multiple performances of the same work on a proscenium stage.

DNCE 285 Student Choreography Production II (1.5-2)
4½ - 6 hours laboratory
Corequisite: *Dance 146*
Transfer acceptability: *CSU; UC*
Further explores the rehearsal and performance of a student-based choreography focusing on smaller ensemble and solo work.

DNCE 287 Classical Jazz Production II (.5-1)
1½ - 3 hours laboratory
Transfer acceptability: *CSU; UC*
Further explores the rehearsal and performance experience of a classical jazz work in the style of 1940's-1960's Hollywood/concert jazz styles. This second experience focuses on small ensemble work, solo work and musicality.

DNCE 288 Modern Jazz Production II (.5-1)
1½ - 3 hours laboratory
Transfer acceptability: *CSU; UC*
Further explores the rehearsal and performance experience in current Jazz styles. This second experience focuses on small ensemble work, solos, and musicality.

DNCE 289 Tap Production II (.5-1)
1½ - 3 hours laboratory
Transfer acceptability: *CSU; UC*
Further explores the rehearsal and performance experience of tap choreography. Concentrates on small ensemble work and solos, resulting in multiple performances of the same work on a proscenium stage.

DNCE 290 World Dance Production II (1-2)
½ - 1 ½ hours lecture - 1½ - 3 hours laboratory
Transfer acceptability: *CSU; UC*
Further explores the rehearsal and performance experience of World Dance. This second experience focuses on small ensemble work and musicality.

DNCE 296 Independent Projects in Dance (1, 1.5, 2)
1, 1½ or 2 hours lecture
Transfer acceptability: *CSU; UC*
Fostering creative research and independent study projects in dance.

DNCE 297 Experimental Projects in Dance (1, 1.5, 2)
½, 1 or 1 ½ hours lecture - 1½, 2 or 3 hours laboratory
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 CSIT - Information Technology

Dental Assisting (DA)

Contact the Dental Assisting Program for further information.
(760) 744-1150, ext. 2571
Office: HS-107

Associate in Science Degrees -

AS 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 Registered 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 Certificates in Dental Radiography, Coronal Polishing, Pit and Fissure Sealants, California Practice Act and Infection Control. Students who successfully complete the program are eligible to take the California Registered Dental Assistant Examination to become licensed as a California Registered Dental Assistant (RDA); and are eligible to take the nationally recognized Certified Dental Assistant (CDA) Examination offered by the Dental Assisting National Board (DANB).

ADMISSION REQUIREMENTS

Admission to the Registered Dental Assisting Program is by special application. To be eligible for admission, applicants must:

1. Complete Palomar College Application for Admission;
2. Attend a Registered Dental Assisting Program 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 eligible for English 50 or 100 or ESL 103 or demonstrate completion of a similar, equivalent college English course(s);
5. Submit medical, vision and dental clearances including Hepatitis B series and TB test results;
6. Meet academic requirements as specified on the Registered Dental Assisting Program website and Palomar College Catalog;
7. Show proof of a valid Social Security number.
8. Have a minimum GPA of 2.0.
9. Be a minimum age of 18 years.

Dental Assistants must 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.

Registered Dental Assisting

A.S. 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 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.

Admission to the Dental Assisting program is by special application. The Dental Assisting program must be completed within two years or the student may need to repeat all required Dental Assisting courses. Contact the department for more information. NOTE: For course repetition purposes, federal financial aid would not be available to students who have already attempted and/or completed required Dental Assisting courses.

Program Requirements		**Units**
*DA 50	Introduction to Dental Sciences and Dental Occupations	3
*DA 57	Dental Sciences and Anatomy	3
ENG 50	Introductory Composition	4
	or	
ENG 100	English Composition	4
	or	
ESL 103	Written Communication III	5
	Proof of current BLS for Healthcare Providers Certificate	0
First Semester		
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	1.5
Second Semester		
DA 71	Dental Radiography II	.5
DA 83	Preventive Dentistry II	.5
DA 85	Advanced Dental Procedures	5
DA 90	Clinical Rotation	6
TOTAL UNITS		**36 - 37**

*Must have completed DA 50 and DA 57 with a grade of "C" or better prior to admission into the Dental Assisting Program.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Pass/No Pass grading only*
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; California Dental Practice Act, psychology and observation in dental offices.

DA 57 Dental Sciences and Anatomy (3)
3 hours lecture
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 Registered 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 Registered Dental Assisting Program*
Note: *Graded only*
Reception and care of the patient in the dental office, communication skills, telephone techniques, appointment scheduling, dental computer software, dental records (charting health and dental history), filing, bookkeeping, accounts receivable and accounts payable, inventory management, principles of and use of insurance forms and collections.

DA 70 Dental Radiography I (2.5)
2 hours lecture - 2 hours laboratory
Prerequisite: *Admission to the Registered Dental Assisting Program*
Note: *Graded only*
Theory and technique of oral radiography, radiation hygiene, anatomical landmarks, and methods and materials for processing radiographs using film and dental radiography. The laboratory portion will provide the student with knowledge concerning film and digital sensor placement, cone angulation, exposing and developing radiographs, and mounting and evaluating processed films and digital radiographs.

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 current BLS for Healthcare Providers Certificate*
Note: *Graded only*
Advanced clinical experience regarding film and digital sensor placement, cone angulation, exposing and developing radiographs, mounting and evaluating radiographs.

DA 75 Dental Operative Procedures (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *Admission to the Registered Dental Assisting Program*
Note: *Graded only*
Applications of and introduction to preclinical dental assisting in operative and specialty dental procedures, care of equipment, instrumentation, infection control, disease transmission, charting, utilization of dental materials, dental office emergencies, and functions delegated to the California Registered Dental Assistant.

DA 82 Preventive Dentistry I (1.5)
1 hour lecture - 1½ hours laboratory
Prerequisite: *Admission to the Registered 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 82*
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.

See Catalog addendum at http://www.palomar.edu/catalog

DA 85 Advanced Dental Procedures (5)
3 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DA 50 , 60 and 75, and proof of Hepatitis B Immunization; and 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, 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 current BLS for Healthcare Providers Certificate*
Note: *Pass/No Pass only*
An intensive program of clinical dental experiences, working with patients and staff at clinics 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Pass/No Pass only*
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-102A

Associate in Science Degrees -
AS 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 Science Degree in Diesel Technology.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DMT 100	Introduction to Diesel Mechanics	4
DMT 105	Heavy-Duty Diesel Tune-Up/Analysis	4
DMT 110	Heavy-Duty Electricity	4
DMT 120	Air Brake Systems	4
DMT 125	Truck Transmission and Drive Lines	4
DMT 200	Diesel Engine Rebuilding I	4
DMT 201	Diesel Engine Rebuilding II	4
Electives (Select 4 units)		
AT 160	Associated Studies in Automotives	3
CE 100	Cooperative Education	1 - 4
DMT 115	Alternative Fuels	4
DMT 130	Medium-Duty Diesel Engine Tune-Up	4
DMT 135	Basic Hydraulics	4
DMT 196	Special Problems In Diesel Technology	0.5 - 3
DMT 197	Diesel Mechanics Technology Workshop	0.5 - 3
IT/WELD 108	Technical Mathematics	3
	or	
MATH 56	Beginning/Intermediate Algebra	6
	or	
MATH 60	Intermediate Algebra	4
	or	
MATH 100	Exploring Mathematics	3
WELD 100	Welding I	3
TOTAL UNITS		**32**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

DMT 100 Introduction to Diesel Mechanics (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 105 Heavy-Duty Diesel Tune Up and Engine Analysis (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DMT 100*
Transfer acceptability: *CSU*
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 110 Heavy-Duty Electricity (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 115 Alternative Fuels (4)
3 hours lecture - 3 hours laboratory
Recommended preparation: *DMT 100*
Transfer acceptability: *CSU*
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 120 Air Brake Systems (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 125 Truck Transmission and Drive Lines (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 130 Medium Duty Diesel Engine Tune Up (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 135 Basic Hydraulics (4)
3 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
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 196 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.
Transfer acceptability: *CSU*
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 197 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.
Transfer acceptability: *CSU*
A special selection of topics specific in nature. The contents will vary depending on specific needs of the students and community.

DMT 200 Diesel Engine Rebuilding I (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DMT 100*
Recommended preparation: *DMT 105*
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 201 Diesel Engine Rebuilding II (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in DMT 200*
Transfer acceptability: *CSU*
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.

Digital Broadcast Arts (DBA)

Contact the Media Studies Department for further information.,
(769) 744-1150, ext. 2440
Office: P-31

Associate in Arts Degrees –
AA Degree requirements are listed in Section 6 (green pages).
- Radio and Television

Associate in Science Degrees –
AS Degree requirements are listed in Section 6 (green pages).
- Digital Video

Certificates of Achievement –
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Digital Video
- Entertainment Technology
- Radio and Television

Certificates of Proficiency –
Certificates 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	Multimedia Writing and Reporting	3
JOUR 105	Multimedia News Writing and Production	3
DBA/ENTT 120	Digital Television Production	3
DBA 240B	Beginning Television News/Sports	3
DBA 240D	Advanced Television News/Sports	3
TOTAL UNITS		**15**

The Broadcast Journalism Certificate of Proficiency is also listed under Journalism.

Digital Media

This program encompasses digital video editing in 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/DBA 125	Beg Film/Video Field Production	3
	or	
GCMW 165	Digital Video Design	3
DBA 270	Digital Video Editing	3
DBA 275	Avid Editing for Television & Film	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
TOTAL UNITS		**15**

Digital Media Certificate of Proficiency is also listed under Graphic Communications-Multimedia and Web.

Digital Video

Digital Video encompasses editing and design in using digital media. This degree prepares students for employment in the film, video, Internet, and television industries.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 140	Digital Imaging/Photoshop I	3
GCMW 165	Digital Video Design	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
DBA/CINE 125	Beginning Film and Video Field Production	3
DBA 230	Digital Audio with Pro Tools	3
DBA 270	Digital Video Editing	3
DBA 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

DBA 50	Basic Television Acting	1
DBA 110	Broadcast Writing and Producing	3
DBA 150	Performance and Acting for Broadcast and Film	3
DBA/CINE 170	Introduction to Video Editing	3
DT 180	3D Studio Max - Introduction to 3D Modeling and Animation	3
ENTT/RTV 120	Basic Television Production	3
GCMW 101	Multimedia I	3
GCMW 104	Intro to Audio and Video for Post Production	3
GCMW 201	Multimedia II	3
GCMW 203	Web Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
GCIP 141	Digital Imaging/Photoshop II	3
GCMW 229	Content Publishing for Mobile, Web and Apps	3
GCIP 152	Digital Publishing/Illustrator I	3
GCIP 240	Digital Imaging/Photoshop III	3
DBA/CINE 225	Intermediate Film and Video Field Production	3
GCIP 168	Digital Imaging with Drones	3
TOTAL UNITS		**30**

Digital Video A.S. 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	4
DBA 100	Introduction to Radio and TV	3
DBA/ENTT 120	Digital Television Production	3
ENTT/TA 105	Introduction to Technical Theatre	3
ENTT/TA 107	Lighting for Stage and Television	3
TA/ENTT/ MUS 112	Basic Sound Reinforcement	3
TA/DNCE/ ENTT 124	Beginning Stage Management	3
TA 192A	Technical Theatre Practicum I	1
Elective Courses (select 10 units):		
TA/FASH/ ENTT106A	Basic Costume I: Technology	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TA/FASH 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	0.5
TA/ENTT/ MUS 114	Advanced Sound Reinforcement	2
TA/ENTT 170	Computer Aided Drafting for Theatre	2
TA/ENTT 171	Advanced Lighting Lab	2
TA 192B	Technical Theatre Practicum II	1
TA 192C	Technical Theatre Practicum III	1
TA 192D	Technical Theatre Practicum IV	1
DBA/ENTT 103	Introduction to Audio-Visual Systems	3
DBA/ENTT 130	Radio Production	3
DBA 230	Digital Audio with Pro Tools	3
DBA 298A	Beginning Broadcast Internship	3
DBA 298B	Intermediate Broadcast Internship	3
DBA/ ENTT 298C	Advanced Broadcast Internships	3
FASH 126	Fashion Show Presentation	3
FASH 135	Introductory Sewing for Apparel	4
FASH 139	Pattern Making/Fashion Design	3
WELD 100	Welding I	3
TOTAL UNITS		**33**

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. Offers hands on experience in Digital broadcasting including Television news and sports. Broadcast journalism is a strong aspect of the program.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
DBA 100	Introduction to Radio and TV	3
DBA 110	Broadcast Writing and Producing	3
DBA/ENTT 120	Digital Television Production	3
DBA/ENTT 130	Radio Production	3
DBA/CINE 170	Introduction to Video Editing	3
DBA 220	TV Production and Directing	3
	or	
* DBA 230	Digital Audio Avid Pro Tools	3
DBA 240A	Basic Television News/Sports	3
DBA 298A	Beginning Broadcast Internship	3
Electives (Select 6 units)		
DBA 100L	Introduction to Radio and Television Laboratory	1
DBA/ENTT 103	Introduction to Audio-Visual Systems	3
DBA 135A	Basic Radio Station Operations	3
DBA 135B	Beginning Radio Station Operations	3
DBA 135C	Intermediate Radio Station Operations	3
DBA 135D	Advanced Radio Station Operations	3
DBA 140	Radio News	3
DBA 150	Performance and Acting for Broadcast and Film	3
DBA 180	Sports Broadcasting	3
DBA 230	Digital Audio with Pro Tools	3
DBA 240B	Beginning Television News/Sports	3
DBA 240C	Intermediate Television News/Sports	3
DBA 240D	Advanced Television News/Sports	3
DBA/CINE 270	Digital Video Editing	3
DBA/CINE 275	Avid Editing for Television and Film	3
DBA 298B	Intermediate Broadcast Internship	3
BUS 150	Advertising	3
CINE/DBA 115	Creative Writing for Television and Cinema	3
CINE/DBA 125	Beginning Film and Video Field Production	3
CINE/DBA 225	Intermediate Film and Video Field Production	3
TA/ENTT 107	Lighting for Stage and Television	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TOTAL UNITS		**30**

*Students who are not planning to transfer to four-year university and who have a ratio emphasis may substitue DBA 230 for DBA 220.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

DBA 50 Basic Television Acting (1)
3 hours laboratory
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 100 Introduction to Radio and TV (3)
3 hours lecture
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 100L Introduction to Radio and Television Laboratory (1)
3 hours laboratory
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Practice in use of radio and television studio equipment. Designed for students who are not Radio Television majors.

DBA 103 Introduction to Audio-Visual Systems (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as ENTT 103; may not be taken for Pass/No Pass grading*
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.

DBA 110 Broadcast Writing and Producing (3)
1½ hours lecture - 4½ hours laboratory
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 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.

DBA 120 Digital Television Production (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as ENTT 120; may not be taken for Pass/No Pass grading*
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.

DBA 125 Beginning Film and Video Field Production (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *CINE 100 or DBA 100L*
Note: *Cross listed as CINE 125*
Transfer acceptability: *CSU; UC – CINE/DBA 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 narrative storytelling for the screen.

DBA 130 Radio Production (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as ENTT 130; may not be taken for Pass/No Pass grading*
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. A program produced by the student will be broadcast on radio station KKSM.

DBA 135A Basic Radio Station Operations (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA/ENTT 130*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Introduction to radio station operations and audio production skills along with practical exercises using broadcast equipment and techniques.

DBA 135B Beginning Radio Station Operations (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 135A*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Beginning radio station operations and audio production skills with emphasis on developing a format radio show.

DBA 135C Intermediate Radio Station Operations (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 135B*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Intermediate radio station operations and audio/editing production skills with emphasis on creating a unique radio show.

DBA 135D Advanced Radio Station Operations (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 135C*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Advanced radio station programming operations and audio production editing. Special emphasis in broadcast management training.

DBA 140 Radio News (3)
1½ hours lecture - 4½ hours laboratory
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 150 Performance and Acting for Broadcast and Film (3)
1½ hours lecture - 4½ hours laboratory
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Techniques of preparation and delivery of materials before microphone and camera.

DBA 170 Introduction to Video Editing (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as CINE 170; may not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Covers the technical and theoretical aspects of film and video editing. Provides an introduction to the basic techniques, elements of editing language, the various technical processes used, introduction to Final Cut Pro software, as well as the related skills necessary for editing digital media.

DBA 180 Sports Broadcasting (3)
1½ hours lecture - 4½ hours laboratory
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Sports broadcasting: anchoring, reporting, play-by-play, and color announcing techniques.

DBA 194A Radio Operations (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA/ENTT 130*
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 194B Experimental Topics Television Operations (1, 2, 3)
3, 6, or 9 hours laboratory
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Individual television projects, including operations of television equipment in college produced television programs or individual productions.

DBA 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 and/or laboratory may be scheduled by the department.
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Topics in Radio and Television. See Class Schedule for specific topic offered. Course title will designate subject covered.

DBA 220 TV Production and Directing (3)
1½ hours lecture - 4½ hours laboratory
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 225 Intermediate Film and Video Field Production (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in CINE/DBA 125*
Note: *Cross listed as CINE 225*
Transfer acceptability: *CSU; UC – CINE/DBA 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.

DBA 230 Digital Audio Avid Pro Tools (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Principles and techniques of editing radio, television, and film audio projects using Avid Pro Tools software and technology. Digitizing audio source material, working knowledge of Avid Pro Tools interface, use of multi-track audio editing system, mic and recording techniques.

DBA 240A Basic Television News/Sports (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA/ENTT 120; completion of, or concurrent enrollment in DBA/ENTT 120*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Basic principles of broadcast scripting, gathering, and editing of television news and/or sports. Learn the technical studio production elements of a news or sports cast.

DBA 240B Beginning Television News/Sports (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 240A*
Recommended preparation: *DBA 110*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Students perform as members of the TV News and Sports broadcast team at a beginning level. Students will assist in the production of the College's various live newscasts and sportscasts for airing on cable television, and will participate in a variety of TV broadcast roles.

DBA 240C Intermediate Television News/Sports (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 240B*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Intermediate level skills are applied as members of the on-air crew and production team, producing TV News and Sports broadcasts. Students will produce the College's various live newscasts and sportscasts for airing on cable television, participating in a variety of TV broadcast roles.

DBA 240D Advanced Television News/Sports (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *DBA 240C*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Advanced principles and application of techniques and theory of local TV News reporting, sports reporting, news gathering, producing, and editing an ongoing weekly TV news/sports program. Production of newscasts for airing on cable television.

DBA 270 Digital Video Editing (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as CINE 270*
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 Adobe Premiere software program. Application of professional operational and aesthetic editing principles.

DBA 275 Avid Editing for Television and Film (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as CINE 275*
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.

DBA 294 Radio Programming Projects (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA/ENTT 130*
Note: *May not be taken for Pass/No Pass grading*
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.

DBA 298A Beginning Broadcast Internship (3)
9 hours laboratory
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Beginning internships at radio and television broadcast stations, Palomar College TV, cable companies, and other communications facilities. Prior internship experience not required; assumes entry-level skills and production experience. May involve entry-level work on independent productions including research, scripting, and pre-production planning.

DBA 298B Intermediate Broadcast Internship (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 298A*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Intermediate internships at radio and television broadcast stations, Palomar College TV, cable companies, network affiliates, and other communications facilities. At least one prior internship experience required; assumes intermediate level skills and production experience, and may involve intermediate level duties and assignments. May involve intermediate level work on independent productions, including research, scripting, pre-production planning, and shooting.

DBA 298C Advanced Broadcast Internships (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 298B*
Note: *Cross listed as ENTT 298C; may not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Work on advanced television production including individual research, work on advanced college produced programs, or internships at local Network affiliate broadcast stations, radio stations, cable companies, and other professional communications facilities.

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 15 English Essentials for Students with Disabilities (3)
3 hours lecture
Note: *Pass/No Pass grading only; 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
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*
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*
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*
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
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*
Non-degree Applicable
Provides training in more advanced software for students with disabilities by using their prescribed access technology.

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*
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*
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*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-102A

Associate in Science Degrees -

AS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DT/ENGR 101	AutoCAD Introduction to Computer Aided Drafting	3
DT/ENGR 102	Advanced AutoCAD	3
DT/ENGR 103	SolidWorks Introduction to 3D Design and Presentation	3
DT/ENGR 104	SolidWorks Advanced 3D Design and Presentation	3
IT/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 15 units)		
ARCH 200	Advanced Computer Aided Architectural Drafting	4
CE 100	Cooperative Education	1 - 4
DT/ENGR 110	Technical Drafting I with AutoCAD	4
DT/ENGR 111	Technical Drafting II with AutoCAD	4
DT/WELD/ ENGR 117	Geometric Dimensioning and Tolerancing	2
DT 196	Special Problems in Computer Aided Drafting	1 - 3
DT 197	Drafting Technology Topics	0.5 - 4
ARCH 202	Introduction to Revit Architecture	3
DT/ENGR 226	Printed Circuit Board Design	3
MATH 110	College Algebra	4
	or	
MATH 115	Trigonometry	3
TOTAL UNITS		**30 - 33**

Drafting Technology - Multimedia

Prepares students in the skills necessary for employment in the multimedia presentation field.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DT/ENGR 101	AutoCAD Introduction to Computer Aided Drafting	3
DT/ENGR 102	Advanced AutoCAD	3
DT/ENGR 103	SolidWorks Introduction to 3D Design and Presentation	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
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 9 units)		
ARTD 150	Digital Concepts and 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
COMM 100	Introduction to Mass Communication	3
DT/ENGR 104	SolidWorks Advanced 3D Design and Presentation	3
DT 196	Special Problems in Computer Aided Drafting	3
ARCH 202	Introduction to Revit Architecture	3
GCIP 140	Digital Imaging/Photoshop I	3
GCMW 101	Multimedia I	3
GCMW 201	Multimedia II	3
MATH 110	College Algebra	4
	or	
MATH 115	Trigonometry	3
MUS 180	Computer Music I	3
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**29 - 30**

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DT/ENGR 101	AutoCAD Introduction to Computer Aided Drafting	3
DT/ENGR 103	SolidWorks Introduction to 3D Design and Presentation	3
DT/ENGR 104	SolidWorks Advanced 3D Design and Presentation	3
DT/ENGR 110	Technical Drafting I with AutoCAD	4
DT/ENGR 111	Technical Drafting II with AutoCAD	4
DT/ WELD/ ENGR 117	Geometric Dimensioning and Tolerancing	2
DT /WELD/ ENGR 151	CAD/CAM Machining	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 4 units)		
CE 100	Cooperative Education	1 - 4
DT 100	Basic Mechanical Drawing	3
DT/ENGR 102	Advanced AutoCAD	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 196	Special Problems in Computer Aided Drafting	1 - 3
	or	
DT 197	Drafting Technology Topics	0.5 - 4
ARCH 202	Introduction to Revit Architecture	3
MATH 110	College Algebra	4
	or	
MATH 115	Trigonometry	3
TOTAL UNITS		**29 - 30**

Electro-Mechanical Drafting and Design

Drafts detailed working drawings of electro-mechanical equipment and devices. Indicates dimensions, tolerances, materials, and manufacturing procedures for electro-mechanical drafting industry.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DT/ENGR 101	AutoCAD Introduction to Computer Aided Drafting	3
DT/ENGR 103	SolidWorks Introduction to 3D Design and Presentation	3
DT/ENGR 110	Technical Drafting I with AutoCAD	4
DT/ENGR 111	Technical Drafting II with AutoCAD	4
DT/WELD/ ENGR 117	Geometric Dimensioning and Tolerancing	2
DT/ENGR 226	Printed Circuit Board Design	3
DT/ENGR 227	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 3 units)		
CE 100	Cooperative Education	1 - 4
DT/ENGR 102	Advanced AutoCAD	3
DT/WELD/ ENGR 151	CAD/CAM Machining	3
DT/ENGR 104	SolidWorks Advanced 3D Design and Presentation	3
DT 196	Special Problems in Computer Aided Drafting	1 - 3
MATH 110	College Algebra	4
TOTAL UNITS		**28 - 29**

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.S. 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 141	Digital Imaging/Photoshop II	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
Electives (Select two courses)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 248	Digital 3D Design and Sculpture	3
DT/ENGR 103	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
ENTT/DBA 120	Digital Television Production	3
GCIP 150	3D Product Development and Marketing	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 100	History of Multimedia	3
TOTAL UNITS		**29 – 30**

Emphasis in Multimedia Design

A.S. 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
GC/ MCS 115	Graphics and Media: A Multicultural Perspective	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 101	Multimedia I	3
GCMW 201	Multimedia II	3
GCMW 204	Motion Graphics/Multimedia	3
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 140	Digital Imaging/Photoshop I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCMW 100	History of Multimedia	3
GCMW 102	Web Page Layout I	3
GCMW 203	Web Multimedia	3
MUS 180	Computer Music I	3
TOTAL UNITS		**30**

Interactive Media Design A.S. Degree or Certificate of Achievement is also listed in Art and in Graphic Communications – Multimedia and Web.

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 101 AutoCAD Introduction to Computer Aided Drafting (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as ENGR 101.*
Transfer acceptability: *CSU; UC – DT/ENGR 101 and 102 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.

DT 102 Advanced AutoCAD (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 101*
Note: *Cross listed as ENGR 102.*
Transfer acceptability: *CSU; UC – DT 101 and 102 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 103 SolidWorks Introduction to 3D Design and Presentation (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as ENGR 103.*
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 104 SolidWorks Advanced 3D Design and Presentation (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 103*
Note: *Cross listed as ENGR 104*
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 110 Technical Drafting I with AutoCAD (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 101, or concurrent enrollment in DT/ENGR 101*
Transfer acceptability: *CSU*
Note: *Cross listed as ENGR 110.*
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/ENGR 110*
Note: *Cross listed as ENGR 111.*
Transfer acceptability: *CSU*
Advanced drafting practices using customized AutoCAD software. Basic studies will include pictorial drafting, descriptive geometry, and revolutions. Working/shop drawings in topography, developments, cabinet/millwork, structural steel, and welding will be performed. Emphasis is placed on increased productivity by customizing AutoCAD to the student's requirements.

DT 117 Geometric Dimensioning and Tolerancing (2)
1 hour lecture - 3 hours laboratory
Note: *Cross listed as ENGR/WELD 117*
Transfer acceptability: *CSU*
An introduction to geometric dimensioning and tolerancing ASME Y14.5-2009. Students will learn to identify, use appropriate geometric symbols and techniques of geometric dimension, and produce industrial quality drawings. Students will also learn to measure and verify geometric dimensions and tolerances of manufactured items.

DT 151 CAD/CAM Machining (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as as ENGR/WELD 151*
Transfer acceptability: *CSU*
Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

DT 180 3D Studio Max – Introduction to 3D Modeling and Animation (3)
1½ hours lecture - 4½ hours laboratory
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*
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
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 196 Special Problems in Computer Aided Drafting (1, 2, 3)
3, 6, or 9 hours laboratory
Transfer acceptability: *CSU*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Drafting. See class schedule for specific topic covered. Course title will designate subject covered.

DT 226 Printed Circuit Board Design (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as as ENGR 226*
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 227 Advanced Printed Circuit Board Design (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 226*
Note: *Cross listed as as ENGR 227*
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*
C-ID GEOL 120
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 100L Earth Systems Laboratory (1)
3 hours laboratory
Prerequisite: *Completion of, or concurrent enrollment in ES 100*
Transfer acceptability: *CSU; UC*
C-ID GEOL 120L
Laboratory and field investigations of the Earth as a system including the geosphere, atmosphere, hydrosphere, and exosphere (solar system) as well as an assessment of society's role in Earth's processes. Focuses on the physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather, and climate.

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.

Economics (ECON)

Contact the Economics, History and Political Science Department for further information.
(760) 744-1150, ext. 2412
Office: MD-375
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 120	Environmental Economics	3
ECON 125	Introduction to Labor Studies	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	4
MATH 130	Calculus for the Social Sciences	4

Group III (Select 3 units)

CSIT 105	Computer Concepts and Applicatons	3
PHIL 200	Critical Thinking	3
TOTAL UNITS		**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 56, or MATH 60, or eligibility determined through the math placement process.*
Transfer acceptability: *CSU; UC*
C-ID ECON 202
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 56, or MATH 60, or eligibility determined through the math placement process.*
Transfer acceptability: *CSU; UC*
C-ID ECON 201
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 various 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.

See Catalog addendum at http://www.palomar.edu/catalog

ECON 120 Environmental Economics (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of major environmental issues from an economics perspective. Models will be developed and used to explore case studies on issues and policies. A strong emphasis will be placed on resource management problems. Course will provide a rationale for government involvement in the market-based economy.

ECON 125 Introduction to Labor Studies (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An introduction to Labor Studies. The focus is on how fundamental work is to human relations and the creation of communities. Moreover, the course examines how work, workers and organizations and institutions shape and define the employment relationship. Surveys how class, race, ethnicity, and gender impact work; the role of corporations; the role of unions; the global economy, and the future of work.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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)
1, 2, or 3 hours lecture
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.

Emergency Medical Education (EME)

Contact the Emergency Medical Education Department for further information.
(760) 744-1150, ext. 8150
Office: ESC-808

Associate in Science Degrees -
AS 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 Science 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 Science 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 Science 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/HE 104	Emergency Medical Responder	3
EME 106	Emergency Medical Technician (Lecture)	6
EME 106L	Emergency Medical Technician Skills (Laboratory)	1.5
TOTAL UNITS		**10.5**

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 6 months full-time pre-hospital experience or equivalent 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
EME 106	Emergency Medical Technician (Lecture)	6
EME 106L	Emergency Medical Technician Skills (Laboratory)	1.5
EME 175	Paramedic Preparation (Lecture)	2
EME 175L	Paramedic Preparation Skills (Laboratory)	1
ZOO 145	Introduction to Anatomy and Physiology	3

A.S. 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
Students must achieve a minimum score of 80% in each of the required courses in order to continue in the program.		
EME 206	Introduction to Paramedic Training (Lecture)	5.5
EME 206L	Introduction to Paramedic Training (Laboratory)	1.5
EME 207	Paramedic Medical Training (Lecture)	10
EME 207L	Paramedic Medical Skills (Laboratory)	2
EME 208	Paramedic Trauma Training (Lecture)	4.5
EME 208L	Trauma Skills (Laboratory)	1
EME 209	Paramedic Obstetrical and Pediatric Training (Lecture)	2.5
EME 209L	Paramedic Obstetrical and Pediatric Skills (Laboratory)	1
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		**44**

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.

The Palomar College Paramedic Training Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medial Services Professions (CoAEMSP). (#600117)

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350
www.caahep.org

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*
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 Emergency Medical Responder (3)
3 hours lecture
Note: *Cross listed as HE 104*
Transfer acceptability: *CSU; UC*
C-ID KINE 101
Covers national curriculum for Emergency Medical Responder (EMR) training. Includes the study and application of emergency medical skills and procedures, including basic anatomy and physiology, terminology, and prevention of disease transmission. CPR certification from the American Heart Association.

EME 106 Emergency Medical Technician (Lecture) (6)
6 hours lecture
Prerequisite: *Current American Heart Association CPR for Health Care Providers and Emergency Medical Response cards or equivalent, and must be age 18 by the first day of class*
Corequisite: *EME 106L*
Note: *May not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
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 certification.

EME 106L Emergency Medical Technician Skills (Laboratory) (1.5)
4½ hours laboratory
Prerequisite: *Current American Heart Association CPR for Health Care Providers CPR and Emergency Medical Response cards or equivalent, and must be age 18 on the first day of EME 106*
Corequisite: *EME 106*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Application of skills required for treatment of pre-hospital emergencies. This course prepares the student for National Registry, California and San Diego County EMT certification. Student is required to complete 24 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 two years*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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.

See Catalog addendum at http://www.palomar.edu/catalog

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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) (5.5)
5½ hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 206L*
Transfer acceptability: *CSU*
Introduction to paramedic training which meets the requirements of the National Educational Standards for Paramedic Training.

EME 206L Introduction to Paramedic Training (Laboratory) (1.5)
4½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 206*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Application of skills necessary for the Introduction to Paramedic Training which meets the requirements of the National Educational Standards for Paramedic Training.

EME 207 Paramedic Medical Training (Lecture) (10)
10 hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 207L and EME 211*
Transfer acceptability: *CSU*
The study of medical and cardiac diseases for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Advanced Cardiac Life Support training and certification.

EME 207L Paramedic Medical Skills (Laboratory) (2)
6 hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 207*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Application of skills necessary for the medical portion of paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Advanced Cardiac Life Support training and certification.

EME 208 Paramedic Trauma Training (Lecture) (4.5)
4½ hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 208L and EME 212*
Transfer acceptability: *CSU*
The study of traumatic emergencies for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 208L Trauma Skills (Laboratory) (1)
3 hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 208*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Application of skills necessary for trauma portion of paramedic training which meets the requirements of the National Educational Standards 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*
Transfer acceptability: *CSU*
The study of Obstetrical and Pediatric emergencies for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals training and certification.

EME 209L Paramedic Obstetrical and Pediatric Skills (Laboratory) (1)
3 hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 209 and EME 212*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Application of skills necessary for the Obstetrical and Pediatric portion for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals training and certification.

EME 210 Hospital Clinical Experience (4)
12 hours laboratory
Prerequisite: *Admission into Paramedic Program*
Transfer acceptability: *CSU*
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 and EME 207L or EME 208 and EME 208L*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
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 209 and EME 209L or EME 210*
Note: *Pass/No Pass grading only*
Transfer acceptability: *CSU*
Application of assessment and BLS skills necessary to be successful in paramedic training.

EME 215 Field Internship (9)
27 hours laboratory
Prerequisite: *A minimum grade of 'B' in EME 210; or concurrent enrollment in EME 210*
Transfer acceptability: *CSU*
Assignment to a response vehicle with a field preceptor. Includes direct patient care responsibilities in providing advanced life support.

EME 216 Tactical Combat Casualty Care (0.5)
½ hour lecture
Transfer acceptability: *CSU*
Evidence-based, life-saving techniques and strategies for providing trauma care under austere and chaotic environments. Guidelines are established by the National Association of Emergency Medical Technicians.

EME 216L Tactical Combat Casualty Care Lab (0.5)
1½ hours laboratory
Transfer acceptability: *CSU*
Hands-on application for providing life saving trauma care. Skills include tourniquet application, combat gauze, treatment of chest injuries and rapid evacuation.

EME 217 Paramedic Recertification (2)
2 hours lecture
Transfer acceptability: *CSU*
Prepares paramedics with the skills needed to maintain or update their certification for National Registry.

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.*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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 Science Degrees -

AS 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.

See Catalog addendum at http://www.palomar.edu/catalog

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.S. DEGREE MAJOR

Program Requirements		**Units**
(Select a minimum of 11 units)		
DT/ENGR 101	AutoCAD Introduction to Computer Aided Drafting	
	or	
DT/ENGR 103	SolidWorks Introduction to 3D Design and Presentation	3
ENGR 126	Intro Electric/Computer Engineering	4
	or	
ENGR 245	Properties of Materials	4
ENGR 210	Electrical Network Analysis	3
ENGR 210L	Electrical Network Analysis Laboratory	1
ENGR 235	Engineering Mechanics Statics	3
ENGR 236	Engineering Mechanics Dynamics	3
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 110L	General Chemistry Laboratory	2
CHEM 115	General Chemistry	3
CHEM 115L	General Chemistry Laboratory	2
MINIMUM TOTAL UNITS		**41**

Recommended Elective: ENGR 100

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 101 AutoCAD Introduction to Computer Aided Drafting (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DT 101.*
Transfer acceptability: *CSU; UC – DT/ENGR 101 and 102 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.

ENGR 102 Advanced AutoCAD (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 101*
Note: *Cross listed as DT 102.*
Transfer acceptability: *CSU; UC – DT 101 and 102 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.

ENGR 103 SolidWorks Introduction to 3D Design and Presentation (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DT 103.*
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.

ENGR 104 SolidWorks Advanced 3D Design and Presentation (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 103*
Note: *Cross listed as DT 104*
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.

ENGR 110 Technical Drafting I with AutoCAD (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 101, or concurrent enrollment in DT/ENGR 101*
Note: *Cross listed as DT 110.*
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.

ENGR 111 Technical Drafting II with AutoCAD (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 110*
Note: *Cross listed as DT 111.*
Transfer acceptability: *CSU*
Advanced drafting practices using customized AutoCAD software. Basic studies will include pictorial drafting, descriptive geometry, and revolutions. Working/shop drawings in topography, developments, cabinet/millwork, structural steel, and welding will be performed. Emphasis is placed on increased productivity by customizing AutoCAD to the student's requirements.

ENGR 117 Geometric Dimensioning and Tolerancing (2)
1 hour lecture - 3 hours laboratory
Note: *Cross listed as DT/WELD 117*
Transfer acceptability: *CSU*
An introduction to geometric dimensioning and tolerancing ASME Y14.5-2009. Students will learn to identify, use appropriate geometric symbols and techniques of geometric dimension, and produce industrial quality drawings. Students will also learn to measure and verify geometric dimensions and tolerances of manufactured items.

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 151 CAD/CAM Machining (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as as DT/WELD 151*
Transfer acceptability: *CSU*
Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

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 lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Engineering. See Class Schedule for specific topic offered. Course title will designate subject covered.

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 226 Printed Circuit Board Design (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as as DT 226*
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.

ENGR 227 Advanced Printed Circuit Board Design (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in DT/ENGR 226*
Note: *Cross listed as as DT 227*
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.

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*
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

Associate in Arts for Transfer -
AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• English

PROGRAM OF STUDY

English

The discipline of English focuses on the English language and literatures in English. It prepares students for transfer as an English major to a CSU or other four-year university and provides the background for students to succeed in diverse fields. For specific transfer requirements, the studentshould consult an academic counselor or the catalog for the school to which he or she wishes to transfer.

Pursuant to SB1440, the following completion requirements must be met:

(1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
(A) The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
(B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.

(2) Obtainment of a minimum grade point average of 2.0. ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is not an acceptable grade for courses in the major.

AA-T TRANSFER MAJOR

Program Requirements (Select one option)

Option I

ENG 202	Critical Thinking and Composition	4
	and	
ENG 205	Introduction to Literature	3

Option II

ENG 203	Critical Thinking and Composition Through Literature	4

See Catalog addendum at http://www.palomar.edu/catalog

List A (Select two courses)

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

List B (Select courses based on Option I or II completed above)
For Option I, select one course
For Option II, select two courses
Any course(s) from List A not already used and/or select from the list below.

ENG 135	Introduction to Creative Writing	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 255	Literature and Ideas	3
ENG 260	Literature through Film	3
ENG 265	Science Fiction	3
ENG 270	Popular Literature	3
ENG 280	Women and Literature	3
ENG 290	Comic Books as Literature	3

List C (Select one course)
Any course from List A or B not already used or select from the list below.

ENG 136	Intermediate Creative Writing	4
ENG 137	The Literary Magazine: History and Production	4
ENG 150	Introduction to Linguistics	3
HUM 100	Introduction to Humanities I	3
TOTAL UNITS		**19 – 21**

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 255	Literature and Ideas	3
ENG 260	Literature Through Film	3
ENG 265	Science Fiction	3
ENG 270	Popular Literature	3
ENG 280	Women and Literature	3
ENG 290	Comic Books as 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 requirement 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
Recommended preparation: *Eligibility for or concurrent enrollment in READ 51*
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.
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: *ENG 50 or Eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 200
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: *ENG 50 or Eligibility for ENG 100, as determined through the English placement process*
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: *ENG 50 or Eligibility for ENG 100, as determined through the English placement process*
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
Prerequisite: *ENG 50 or Eligibility for ENG 100, as determined through the English placement process*
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.
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*
C-ID ENGL 105
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*
C-ID ENGL 110
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: *A minimum grade of 'C' in ENG 100*
Transfer acceptability: *CSU; UC*
C-ID ENGL 120
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 160
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 165
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 140
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 145
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 130
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID ENGL 135
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
Transfer acceptability: *CSU; UC*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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: *A minimum grade of 'C' in ENG 50 or eligibility for ENG 100, as determined through the English placement process*
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*
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: H-116

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 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 12 ESL Grammar Skills I (3)
3 hours lecture
Non-degree Applicable
Instruction in editing of written material by applying conventions of standard written English.

ESL 13 ESL Grammar Skills II (3)
3 hours lecture
Non-degree Applicable
Instruction in editing of written material by applying conventions of standard written English.

ESL 14 ESL Grammar Skills III (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: *N ESL 303 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)
1, 1½, 2, 2½, 3, 3½, or 4 hours lecture - 3, 4½, 6, 7½, 9, 10½, or 12 hours laboratory
Prerequisite: *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)
1, 1½, 2, 2½, 3, 3½, or 4 hours lecture - 3, 4½, 6, 7½, 9, 10½, or 12 hours 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 45 Reading and Writing Essentials I (5)
5 hours lecture
Non-degree Applicable
A beginning course in reading and writing academic English for students whose first language is not English. Offers instruction in reading skills, basic grammar usage, paragraph organization and development, and appropriate basic vocabulary for academic reading and writing.

ESL 47 English as a Second Language Topics (3-6)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture may be scheduled by the department. Refer to Class Schedule. Non-degree Applicable Topics in English as a Second Language. See class schedule for specific topic covered. Course title will designate subject covered.

See Catalog addendum at http://www.palomar.edu/catalog

ESL 55 Reading and Writing Essentials II (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in ESL 35 or ESL 45, or eligibility determined through the English as a Second Language placement process*
An intermediate course in reading and writing academic English for students whose language is not English. Introduces analytical skills and critical thinking through reading, word level, and sentence level grammar as it applies to academic writing, paragraph organization and development, and appropriate vocabulary for academic writing.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Topics in English as a Second Language. See Class Schedule for specific topic covered. Course title will designate subject covered.

ESL 98.1 Career Track ESL I (1,1.5,2,2.5,3,3.5,4)
1 hour lecture - 3, 4½, 6, 7½, or 9 hours laboratory
First level English as a Second Language instruction in preparation for entrance into a career, certificate, or degree program. Self-paced modules provide an introduction to complementary language and academic skills necessary to succeed in a career/technical program. Includes reading, writing, speaking, listening, and basic computer literacy skills.

ESL 98.2 Career Track ESL II (1,1.5,2,2.5,3,3.5,4)
1 hour lecture - 3, 4½, 6, 7½, or 9 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 101 Written Communication I (5)
5 hours lecture
Prerequisite: *A minimum grade of 'C' in ESL 36 or ESL 55, 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 105 Accelerated Written Communication I (6)
6 hours lecture
Prerequisite: *ESL 45, or Eligibility determined through the English as a Second Language placement process.*
Transfer acceptability: *CSU; UC*
An accelerated course in reading and writing combining ESL 55 and 101. Designed for students whose first language is not English. Emphasizes analytical and critical thinking skills through reading and writing as a process. Reviews sentence-level grammar and its application to academic writing of summaries and development of paragraph organization and multiple-paragraph essays.

ESL 106 Accelerated Written Communication II (6)
6 hours lecture
Prerequisite: *ESL 105, or or Eligibility determined through the English as a Second Language placement process.*
Transfer acceptability: *CSU; UC*
An accelerated course in reading and writing combining ESL 102 and 103 designed for students whose first language is not English. Review of the five-paragraph essay with an emphasis on detailed, specific and appropriate support. Develops students' abilities to critically analyze and respond both objectively and subjectively to published materials. Introduces the principles of basic research.

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: PAC-122

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	4
DBA 100	Introduction to Radio and TV	3
DBA/ENTT 120	Digital Television Production	3
ENTT/TA 105	Introduction to Technical Theatre	3
ENTT/TA 107	Lighting for Stage and Television	3

TA/ENTT/ MUS 112	Basic Sound Reinforcement	3
TA/DNCE/ ENTT 124	Beginning Stage Management	3
TA 192A	Technical Theatre Practicum I	1

Elective Courses (select 10 units):

TA/FASH/ ENTT 106A	Basic Costume I: Technology	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TA/FASH 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	0.5
TA/ENTT/ MUS 114	Advanced Sound Reinforcement	2
TA/ENTT 170	Computer Aided Drafting for Theatre	2
TA/ENTT 171	Advanced Lighting Lab	2
TA 192B	Technical Theatre Practicum II	1
TA 192C	Technical Theatre Practicum III	1
TA 192D	Technical Theatre Practicum IV	1
DBA/ENTT 103	Introduction to Audio-Visual Systems	3
DBA/ENTT 130	Radio Production	3
DBA 230	Digital Audio with Pro Tools	3
DBA 298A	Beginning Broadcast Internship	3
DBA 298B	Intermediate Broadcast Internship	3
DBA/ ENTT 298C	Advanced Broadcast Internships	3
FASH 126	Fashion Show Presentation	3
FASH 135	Introductory Sewing for Apparel	4
FASH 139	Pattern Making/Fashion Design	3
WELD 100	Welding I	3
TOTAL UNITS		**33**

Entertainment Technology Certificate of Achievement also listed in Digital Broadcast Arts and in Theatre Arts.

COURSE OFFERINGS

Individual courses are not repeatable. State Regulations (Title 5, Sections 55040-55041) also limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Entertainment Technology have limitations on the number of times a student may enroll. Specific information about enrollment limitations for Entertainment Technology classes is available at http://www.palomar.edu/schedule/restrictions.htm

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)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DBA 103; may not be taken for Pass/No Pass grading*
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 - 4 hours laboratory
Note: *Cross listed as TA 105*
Transfer acceptability: *CSU; UC*
A practical introduction to the theories and applications of construction techniques, language, principles, safety, and tools used in the creation of theatrical scenery and properties. The language, tools, and principles of other technical theatre crafts, such as lighting, costuming, make-up, sound design, and stage management will also be presented.

ENTT 106A Basic Costume I: Technology (3)
2 hours lecture –3 hours laboratory
Note: *Cross listed as FASH 106A and TA 106A*
Transfer acceptability: *CSU; UC*
C-ID THTR 174
A foundational course providing a basic introduction to practices, theories, techniques and procedures of costume technology for theatre, film and television. Focus will be on the structure of a working costume shop, basic hand and machine sewing techniques, textile identification, basic garment fitting, simple pattern modification, and production wardrobe crew procedures. Practical training in college productions is incorporated during the course of study.

ENTT 106B Basic Costume II: Design (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as FASH 106B and TA 106B*
Transfer acceptability: *CSU; UC*
A foundational course providing a basic introduction to practices, theories, techniques and procedures of costume design for theatre, film and television. Through a series of costume projects, students develop design theory, drawing techniques and script analysis abilities. Practical training in college productions is incorporated during the course of study.

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*
C-ID THTR 173
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*
C-ID THTR 172
Technical practices and organization of production for theatre, film, and television. Practice in drafting, designing, and construction of scenery for college productions.

ENTT 112 Basic Sound Reinforcement (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as TA 112 and MUS 112*
Transfer acceptability: *CSU*
An introduction to basic sound equipment and reinforcement principles. To understand basic set up, operation, and troubleshooting of live Public Address systems in a concert or theatrical setting.

ENTT 114 Advanced Sound Reinforcement (1.5 - 2)
4½ - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT/MUS 112*
Note: *Cross listed as MUS/TA 114*
Transfer acceptability: *CSU*
Advanced principles of electronic sound, acoustics, equalization and effects processing, recording of live sound in a concert or theatrical setting, equipment management and design techniques.

ENTT 120 Digital Television Production (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DBA 120; may not be taken for Pass/No Pass grading*
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 124 Beginning Stage Management (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 100*
Note: *Cross listed as DNCE/TA 124*
Transfer acceptability: *CSU; UC*
Introduces students to the practices and techniques of Stage Management. Students will assist a stage manager on a project during the course of the semester. Regular availability on evenings and weekends is required.

ENTT 130 Radio Production (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DBA 130; may not be taken for Pass/No Pass grading*
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. A program produced by the student will be broadcast on radio station KKSM.

ENTT 170 Computer Aided Drafting for Theatre (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 105*
Note: *Cross listed as TA 170*
Transfer acceptability: *CSU*
An introduction to Computer Aided Drafting (CAD) for theatre. Hands on experience with CAD software to be supplemented with basic mechanical drafting terminology and techniques. An introduction to user specific third party software as related to drafting and designing of scenery and lighting for college productions.

ENTT 171 Advanced Lighting Lab (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 107*
Note: *Cross listed as TA 171*
Transfer acceptability: *CSU; UC*
Crafting and implementation of the lighting design for performances using the techniques, theories, and procedures necessary to develop lighting and lighting effects. Practical experience in college theatre, dance, and music productions.

ENTT 298C Advanced Broadcast Internships (3)
9 hours laboratory
Prerequisite: *A minimum grade of 'C' in DBA 298B*
Note: *Cross listed as DBA 298C; may not be taken for Pass/No Pass grading*
Transfer acceptability: *CSU*
Work on advanced television production including individual research, work on advanced college produced programs, or internships at local Network affiliate broadcast stations, radio stations, cable companies, and other professional communications facilities.

Family and Consumer Sciences (FCS)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: P-8A
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -
AS 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.S. 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
NUTR/HE 165	Fundamentals of Nutrition	3
FASH 110	Textiles	3
FASH 135	Introductory Sewing for Apparel	4
ID 100	Interior Design	3
CHDV 100 or	Child Growth and Development	
PSYC 110	Developmental Psychology – Child Through Adult	3
TOTAL UNITS		**25**

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 - 3 hours 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*
An integrated approach to personal finance that focuses on practical financial decision-making, as well as the physiological, psychological and sociological contexts in which those decisions are made. Topics include money management, taxes, financial services, consumer credit, consumer purchasing strategies, housing, property and automobile insurance, health and disability insurance, life insurance, investment analysis and retirement and estate planning.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Family and Consumer Sciences. See class schedule for specific topic offered. Course title will designate subject covered.

Fashion (FASH)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: P-8A
For transfer information, consult a Palomar College Counselor.

Associate in Science Degree -
AS Degree requirements are listed in Section 6 (green pages).
- Fashion: Buying and Management
- Fashion: Visual Merchandising
- Fashion Design
- Fashion Merchandising

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Fashion: Buying and Management
- Fashion: Visual Merchandising
- Fashion Merchandising

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
FASH 100	Fashion Industry	3
FASH 110	Textiles	3
FASH 115	Visual Merchandising I	3
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 195	Field Studies in Fashion	2
BUS 145/ FASH 125	Retailing/Promotion	3
CSIT 120	Computer Applications	3
TOTAL UNITS		**26**

Fashion Design

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.S. DEGREE MAJOR

Program Requirements		Units
FASH 100	Fashion Industry	3
	or	
FASH 105	Fashion Analysis and Clothing Selection	3
FASH 110	Textiles	3
FASH 125/ BUS 145	Retailing/Promotion	3
FASH 126	Fashion Show Presentation	3
FASH 136	Advanced Sewing for Apparel	4
FASH 137	Tailoring	3
	or	
FASH 149	Fine Dressmaking	3
FASH 139	Pattern Making/Fashion Design	3
FASH 141	Advanced Pattern Making/Fashion Design	3
FASH 145	Fashion Illustration and Presentation	3
FASH 146	Computer Aided Design (CAD) for Fashion	3
	or	
FASH 148	Digital Design for Fashion	3
FASH 90	Design Collection	3
TOTAL UNITS		**34**

Fashion Merchandising

The Fashion Merchandising A.S. 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

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
FASH 120	Fashion Buying/Management II	3
FASH 125/ BUS 145	Retailing/Promotion	3
FASH 126	Fashion Show Promotion	3
FASH 130	History of Fashion/Costume	3
FASH 148	Digital Design for Fashion	3
FASH 195	Field Studies in Fashion	2
TOTAL UNITS		**29**

Recommended Electives: FASH 116, 132, 155; BUS 155

Fashion: Visual Merchandising

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.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements

FASH 100	Fashion Industry	3
FASH 115	Visual Merchandising I	3
FASH 116	Visual Merchandising II	3
FASH 126	Fashion Show Presentation	3
FASH 125/ BUS 145	Retailing/Promotion	3
CE 150	Cooperative Education Internship	2 - 3
ID 130	Light and Color	3
ID 150/ ARCH 150	Computer Aided Drafting for Designers (CADD)	3
ID 141	Commercial Interior Design	3

Electives (Select one course)

FASH 105	Fashion Analysis and Clothing Selection	3
FASH 130	History of Fashion/Costume	3
FASH 135	Introductory Sewing for Apparel	4
FASH 195	Field Studies in Fashion	2
TOTAL UNITS		**28 - 31**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

FASH 90 Design Collection (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *At least one of the following courses: FASH 135, 136, 139, 145*
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
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 106A Basic Costume I: Technology (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as TA 106A and ENTT 106A*
Transfer acceptability: *CSU; UC*
C-ID FASH 174
A foundational course providing a basic introduction to practices, theories, techniques and procedures of costume technology for theatre, film and television. Focus will be on the structure of a working costume shop, basic hand and machine sewing techniques, textile identification, basic garment fitting, simple pattern modification, and production wardrobe crew procedures. Practical training in college productions is incorporated during the course of study.

FASH 106B Basic Costume II: Design (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as ENTT 106B and TA 106B*
Transfer acceptability: *CSU; UC*
A foundational course providing a basic introduction to practices, theories, techniques and procedures of costume design for theatre, film and television. Through a series of costume projects, students develop design theory, drawing techniques and script analysis abilities. Practical training in college productions is incorporated during the course of study.

FASH 109 Elementary Stage Make-Up (3)
2 hours lecture - 4 hours laboratory
Prerequisite: *A minimum grade of 'C' in ENTT/TA 105*
Note: *Cross listed as TA 109*
Transfer acceptability: *CSU; UC*
C-ID FASH 175
Basic theories, techniques, and procedures of make-up production for stage, film, and television. Practical training in college productions.

FASH 110 Textiles (3)
2½ hours lecture - 1½ hours 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)
3 hours lecture
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)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FASH 115*
Transfer acceptability: *CSU*
Advanced training in visual presentation. Students benefit by practical application and collaboration with industry professionals. Course activities include a leadership role in construction and installing of interior and exterior window displays, store layout, special event coordination, and store planning.

FASH 119 Fashion Buying/Management I (3)
3 hours lecture
Transfer acceptability: *CSU*
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 (3)
3 hour lecture
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.

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 Introductory Sewing for Apparel (4)
2 hours lecture - 6 hours laboratory
Transfer acceptability: *CSU*
Produce basic garments in a sample-room setting using introductory sewing techniques.

FASH 136 Advanced Sewing for Apparel (4)
2 hours lecture - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in FASH 135*
Transfer acceptability: *CSU*
Advanced sewing for apparel emphasizing machine technique and workroom procedures. Preparation will be given for employment in sample making for apparel manufacturing.

FASH 137 Tailored Apparel Sewing (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *FASH 136*
Transfer acceptability: *CSU*
Demonstration of advanced level sewing construction utilizing hand and machine techniques for tailoring. Projects include planning and construction of suits and coats.

FASH 139 Pattern Making/Fashion Design (3)
1½ hours lecture - 4½ hours laboratory
Corequisite: *FASH 167*
Recommended preparation: *FASH 135*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in FASH 139*
Corequisite: *FASH 167*
Recommended preparation: *FASH 135*
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 (3)
1½ hours lecture - 4½ hours 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)
1½ hours lecture - 4½ hours laboratory
Corequisite: *FASH 168*
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in FASH 146*
Corequisite: *FASH 168*
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)
1½ hours lecture - 4½ hours laboratory
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*
Transfer acceptability: *CSU*
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)
1, 2, or 3 hours lecture - 1½, 2, 3, or 4½ laboratory
Note: *Fee charged*
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
Note: *Pass/No Pass grading only*
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
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.

See Catalog addendum at http://www.palomar.edu/catalog

FASH 167 Pattern-Making Laboratory (.5)
1½ hours laboratory
Corequisite: *FASH 139 or 141*
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*
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)
1½ hours lecture - 4½ hours 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
Transfer acceptability: *CSU*
Creation of a professional portfolio for careers in the fashion industry.

FASH 195 Field Studies in Fashion (2)
1 hour lecture - 3 hours laboratory
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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. 1704
Office: PSTC, 182 Santar Place, San Marcos

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
- Fire Academy
- Fire Technology - Emergency Management
- Fire Technology - General

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
- Fire Academy
- Fire Technology - Emergency Management
- Fire Technology - General

PROGRAMS OF STUDY

Fire Academy

Training to meet the requirements mandated by the California Office of State Fire Marshal for Certified Fire Fighter 1. 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.

Prepares students for a career in the fire suppression/protection field. The student also receives additional certifications from the California State Fire Marshall's Office.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		
EME 100/HE 104	Emergency Medical Responder	3
EME 106	Emergency Medical Technician (Lecture)	6
EME 106L	Emergency Medical Technician Skills (Laboratory)	1.5
FIRE 151	Fire Fighter I Academy	20
TOTAL UNITS		**30.5**

Fire Technology - Emergency Management

Prepares student for career in Emergency Management.

A.S. 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	0.5
FIRE 72	Swiftwater Rescue	0.5
FIRE 98	Fire Service Skills	0.5 - 5
FIRE 101	Firefighter Safety	3
FIRE 118	Fire Prevention Technology	3

FIRE 125	Fire Apparatus and Equipment	3
FIRE 130	Fire Protection Equipment and Systems	3
FIRE 142	Fire Ethics	3
FIRE 145	Fire Fighting Tactics and Strategy	3
FIRE 151	Fire Fighter I Academy	20
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 180	Fire Prevention 1A	2.5
FIRE 176	Fire Command 1B	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	0.5 - 5
FIRE 197B	Fire Technology Command Topics	0.5 - 5
FIRE 197C	Fire Technology Field Topics	0.5 - 5
TOTAL UNITS		**30**

Fire Technology - General

Prepares students for a career in fire suppression, fire prevention and/or fire protection.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
FIRE 100	Fire Protection Organization	3
FIRE 101	Firefighter Safety	3
FIRE 118	Fire Prevention Technology	3
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 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	20
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		**33**

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)
1 hour lecture - 3 hours laboratory
Note: *May not be taken as an audit*
Prepares individuals for the demanding requirements of the Fire Academy. Also prepares students for the Physical Ability test required to pass the North County Regional Fire Test. The test is broken 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*
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*
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)
½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, or 5 hours lecture - 1½, 2, 3, 4½, 6, 7½, 9, 10½, 12, 13½, or 15 hours laboratory
Note: *Pass/No Pass grading only; may not be taken as an audit*
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 101 Firefighter Safety (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in FIRE 100*
Transfer acceptability: *CSU*
Encompasses the many dangers associated with the job of a firefighter. Introduces the National Fallen Firefighters Foundation, Firefighter Life Safety Initiatives, and the Everyone Goes Home Program.

See Catalog addendum at http://www.palomar.edu/catalog

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 (3)
3 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.

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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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
Transfer acceptability: *CSU*
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
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 (20)
10 hours lecture - 30 hours 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 656 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)
2 hours lecture - 7½ hours laboratory
Recommended preparation: *FIRE 100 and 151*
Transfer acceptability: *CSU*
Comprehensive instruction in all aspects of operating fire apparatus. 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)
2 hours lecture - 6 hours 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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

Contact the World Languages Department for further information about the Foreign Languages Topic courses.
(760) 744-1150, ext. 2390
Office: H-201
Contact the American Indian Studies Department for further information about the Cahuilla,Cupeño, Luiseno and Nahuatl courses.
(760) 744-1150, ext. 2405
Office: MD-140

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; 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.

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; UC*
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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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: H-201

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	French I	5
FREN 102	French II	5
FREN 201	French III	5
FREN 202	French IV	5
TOTAL UNITS		**20**

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
Note: *Corresponds to two years of high school study.*
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 course-work in French.

FREN 102 French II (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in FREN 101 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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in FREN 102 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. Course combines in-class instruction with self-paced study in the World Languages Laboratory. 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*
An intermediate-level study of the French language and French-speaking cultures. Focus is on developing oral and written proficiency within a cultural context.

General Studies

Contact the Counseling Center for further information.
(760) 744-1150, ext. 2179
Office: SSC-18A

Associate Degrees -

Degree requirements are listed in Section 6 (green pages).
• AA General Studies: Emphasis in Arts and Humanities
• AS General Studies: Emphasis in Science and Mathematics
• AA 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.

ASSOCIATE DEGREE MAJOR

Select An Area of Emphasis:
Students may earn only one General Studies degree.

Emphasis in Arts and Humanities

Select 18 units minimum
Africana Studies 115
American Indian Studies 100, 104, 105, 108A, 108B, 135, 145, 146, 150, 153, 154, 166A, 166B, 167A, 167B, 207A, 207B, 266A, 266B
American Sign Language 100, 101, 110, 205, 206
American Studies 100, 105
Anthropology 135, 155
Arabic 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B
Architecture 120, 121, 155
Art 100, 102, 104, 105, 163, 164, 165, 166, 167, 168
Chicano Studies 100, 105, 110, 155
Chinese 101, 102, 201
Cinema 100, 102, 103, 110, 120, 122, 123
Dance 100, 101, 102, 105
Digital Broadcast Arts 100
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, 102, 201, 202
German 101, 102, 201, 202
Graphic Communications 101, 102, 115
History 105, 106
Humanities 100, 101
Interior Design 115, 120
Italian 101, 102, 201
Japanese 101, 102, 130, 201, 202
Judaic Studies 106
Multicultural Studies 115, 120, 124, 125, 157
Music 100, 101, 102, 103, 170, 171
Philosophy 111, 113, 114, 116, 121, 122, 125, 126, 140, 141, 200, 250
Photography 125
Reading 110, 120
Religious Studies 101, 104, 105, 106, 108, 110, 124
Spanish 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B, 202, 211, 212, 235
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
Botany 100, 101
Business 110
Chemistry 100, 104, 105, 110, 115, 205, 210, 220, 221
CSIT-Information Technology 105
Earth Sciences 100, 115
Engineering 210
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
Nutrition 165, 185
Oceanography 100
Physical Science 100, 101
Physics 101, 102, 120, 121, 200, 201, 230, 231, 232
Psychology 205, 210
Sociology 205
Zoology 100, 101, 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, 120, 125, 126
Alcohol and Other Drug Studies 150
American Indian Studies 101, 102, 110, 115, 120, 125, 130, 140, 165
American Studies 104, 110, 200
Anthropology 105, 107, 110, 115, 125, 126, 130, 137, 140
Business 136
Chicano Studies 101, 102, 125
Child Development 100, 110, 115
Communications 100, 105
Counseling 100, 110, 115, 120, 148
Economics 100, 101, 102, 110, 115, 120, 125
English 150
Family and Consumer Sciences 101, 105, 136, 150
Fashion 132
Geography 103, 105
Graphic Communications-Multimedia & Web 100
Health 100
History 101, 102, 107, 108, 121, 130, 140, 141, 150, 151
Judaic Studies 107
Legal Studies 121, 240
Multicultural Studies 100, 110, 125, 165, 200
Nutrition 120
Political Science 100, 101, 102, 110
Psychology 100, 105, 110, 115, 120, 125 130, 145, 150, 225, 235
Religious Studies 102, 107, 108
Sociology 100, 105, 110, 115, 125, 130, 135, 145, 150, 165, 200
Speech 120, 131
*Military Service

*Palomar College will accept a minimum of 3 units of ACE recommended credit for completion of Basic/Recruit Training. Refer to the Associate Degree District Requirements, under Health and Fitness or see a Counselor for more information.

Geography (GEOG)

Contact the Earth, Space, and Aviation Sciences Department for further information.
(760) 744-1150, ext. 2512
Office: NS-110G

Associate in Science Degree -

AS Degree requirements are listed in Section 6 (green pages).
• Advanced Geographic Information Systems

Associate in Arts for Transfer -

AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Geography

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

PROGRAMS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
GEOG 120	Introduction to Geographic Information Systems and GIS Software	4
GEOG 132	Database Management and Data Acquisition	4
GEOG 134	GIS Applications and Programming	2
GEOG 136	Intermediate ArcGIS: GIS Analysis	2
GEOG 138	GIS Internship	2
	or	
GEOG 139	GIS Specialist 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
GEOG 143	Introduction to Cartography and Computer Mapping	1
GEOG 144	Internet Mapping and Application Development	3
GEOG 150	Geographic Information Science and Spatial Reasoning	3
Electives (Select 1 course)		
CSIT 150	Introduction to SQL	3
CSWB 120	JavaScript	3
DT/ENGR 110	Technical Drafting I with AutoCAD	4
TOTAL UNITS		**19 - 24**

Associate in Arts in Geography for Transfer

The Associate in Arts in Geography for Transfer provides students with a comprehensive study of the earth from a spatial perspective. The field of geography includes several subfields. Physical geography is the study of natural phenomena such as weather, climate, geological formations, and the distribution of plants and animals. Human geography is the study of the spatial distribution of culture, language, religion, population, economics, and politics. Regional geography incorporates in-depth studies of specific geographic areas of the world. Cartography and Geographic Information Systems are analytical tools used in all subfields of geography.

AA-T TRANSFER MAJOR

Program Requirements		
GEOG 100	Physical Geography	3
GEOG 105	Introduction to Human Geography	3
Electives: List A (Select 6 - 7 units)		
GEOG 100L	Physical Geography Laboratory	1
GEOG 103	World Regional Geography	3
GEOG 110	Meteorology: Weather and Climate	3
GEOG 120	Introduction to Geographic Information Systems and GIS Software	4
GEOG 125	California Geography	3
GEOG 195	Regional Field Studies in Geography	1 - 3
Electives: List B (Select 6 units not previously used to satisfy List A)		
ANTH 105	Introduction to Cultural Anthropology	3
GEOL 100	Basic Geology	3
GEOG 100L	Physical Geography Laboratory	1
GEOG 103	World Regional Geography	3
GEOG 110	Meteorology: Weather and Climate	3
GEOG 115/ ES 115	Natural Disasters and Environmental Hazards	3
GEOG 120	Introduction to Geographic Information Systems and GIS Software	4
GEOG 125	California Geography	3
GEOG 195	Regional Field Studies in Geography	1 - 3
TOTAL UNITS		**18 - 19**

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	Introduction to Geographic Information Systems and GIS Software	4
GEOG 132	Database Management and Data Acquisition	4
GEOG 134	GIS Applications and Programming	2
GEOG 136	Intermediate ArcGIS: GIS Analysis	2
GEOG 138	GIS Internship	2
	or	
GEOG 139	GIS Specialist Internship	2
TOTAL UNITS		**14**

COURSE OFFERINGS

GEOG 100 Physical Geography (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID GEOG 110
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*
C-ID GEOG 111
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*
C-ID GEOG 125
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*
C-ID GEOG 120
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*
C-ID GEOG 130
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*
C-ID GEOG 155
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 Geography (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID GEOG 140
Emphasizes issues, processes and topics relevant to both the physical and cultural geography of California and the landscapes that have evolved as a result of that interface. Topics include but are not limited to climate, landforms, vegetation, water resources, ethnic diversity, urban and agricultural regions, and the economy.

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)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
Provides advanced knowledge and practical experience in developing and customizing Geographic Information Systems (GIS) desktop and web applications. Students will learn the fundamentals of the Python scripting language, as well as the use of models and custom scripts. The lab activities will work with script tools, introductory web mapping interface, and modelbuilder.

GEOG 136 Intermediate ArcGIS: GIS Analysis (2)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
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 139 GIS Specialist Internship (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
This specialist internship is targeted at students who wish to assume professional positions such as GIS Specialist and GIS Project Manager. Students will be under the supervision of an instructor from the college and an advisor from the agency while working on GIS operations that go beyond data collection and data editing.

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*
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 144 Internet Mapping and Application Development (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOG 120*
Transfer acceptability: *CSU*
Involves the design, creation, configuration, and optimization of geospatial services and applications to deliver content across the Internet. The student will construct web mapping applications with a variety of user interfaces.

GEOG 150 Geographic Information Science and Spatial Reasoning (3)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MATH 60*
Transfer acceptability: *CSU; UC*
An introduction to spatial analyses and spatial distribution theories within the field of Geographic Information Science (GISci). Students will learn about fundamentals of cartography, GIS theory, global positioning systems, spatial relationships, and remote sensing in this course. Students will analyze environmental problems and the human landscape by using open-source GIS software packages to visualize, query, manipulate, and interpret temporal and spatial data.

GEOG 195 Regional Field Studies in Geography (1, 2, 3)
½, 1, or 1½ hours lecture - 1½, 2, 2½, 3, 3½, 4, or 4½ hours laboratory
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
C-ID GEOG 160
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*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
C-ID GEOG 160
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 Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Geology

Associate in Science for Transfer -
AS-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Geology

PROGRAMS 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.S. DEGREE MAJOR

Program Requirements

Group One		
GEOL 100	Physical Geology	3
GEOL 100L	Geology Laboratory	1
GEOL 150	Dinosaurs and Earth History	3
GEOL 150L	Dinosaurs and Earth History Laboratory	1
Group Two (A minimum of 2 units from the following)		
GEOL 195A	Field Studies in Geology: Regional	1 - 3
GEOL 195B	Field Studies in Geology: Southern California Coastal Region	1 - 3
GEOL 195C	Field Studies in Geology: Salton Trough Region	1 - 3
GEOL 195D	Field Studies in Geology: Colorado Plateau Region	1 - 3
GEOL 195E	Field Studies in Geology: Sierra Nevada Region	1 - 3
GEOL 195F	Field Studies in Geology: Death Valley Region	1 - 3
Group Three (Select at least two of the three options)		
Option 1		
MATH 140	Calculus with Analytic Geometry, First Course	5
MATH 141	Calculus with Analytic Geometry, Second Course	4
Option 2		
PHYS 120	General Physics	4
PHYS 121	General Physics	4
	or	
PHYS 230	Principles of Physics	5
PHYS 231	Principles of Physics	5
Option 3		
CHEM 110	General Chemistry	3
CHEM 110L	General Chemistry Laboratory	2
CHEM 115	General Chemistry	3
CHEM 115L	General Chemistry Laboratory	2
Group Four (Select at least 8 units)		
Any courses in Group Three not taken above.		0
BIOL 100	General Biology	4
GEOG 120	Introduction to Geographic Information Systems and GIS Software	4
GEOL 110	General Geology: National Parks and Monuments	3
GEOL/ASTR 120	Planets, Moons, and Comets	3
GEOL 195A	Field Studies in Geology: Regional	1 - 3
GEOL 195B	Field Studies in Geology: Southern California Coastal Region	1 - 3
GEOL 195C	Field Studies in Geology: Salton Trough Region	1 - 3
GEOL 195D	Field Studies in Geology: Colorado Plateau Region	1 - 3
GEOL 195E	Field Studies in Geology: Sierra Nevada Region	1 - 3
GEOL 195F	Field Studies in Geology: Death Valley Region	1 - 3
GEOL 197	Geology Topics	1 - 3
GEOL 295	Directed Study in Geology	1 - 3
MATH 205	Calculus with Analytic Geometry, Third Course	4
MATH 206	Calculus with Differential Equations	4
OCN 100	Oceanography Lecture	3
OCN 100L	Oceanography Laboratory	1
PHYS 232	Principles of Physics	4
TOTAL UNITS		**34 - 38**

Geology

Geology is the study of the dynamic processes that shape Earth. Geology incorporates a multidisciplinary approach to describe and solve a variety of problems, including those related to human interaction with natural systems, geologic hazards, and resources. Students who successfully complete this degree will be prepared for transfer into upper division coursework in geology and will meet transfer requirements for admission to CSU.

AS-T TRANSFER MAJOR

Program Requirements

GEOL 100	Physical Geology	3
GEOL 100L	Geology Laboratory	1
GEOL 150	Dinosaurs and Earth History	3
GEOL 150L	Dinosaurs and Earth History Laboratory	1
CHEM 110	General Chemistry	3
CHEM 110L	General Chemistry Laboratory	2
CHEM 115	General Chemistry	3
CHEM 115L	General Chemistry Laboratory	2
MATH 140	Calculus with Analytic Geometry, First Course	5
MATH 141	Calculus with Analytic Geometry, Second Course	4
TOTAL UNITS		**27**

Additional Recommended Preparation

PHYS 230 Principles of Physics 5
PHYS 231 Principles of Physics 5
BIOL 100 General Biology 4

COURSE OFFERINGS

GEOL 100 Physical Geology (3)
3 hours lecture
Note: *Together with GEOL 150, a prerequisite to upper division courses in Geology*
Transfer acceptability: *CSU; UC*
C-ID GEOL 100
Geology is the study of Earth and the processes that shape the world around us. Geologic concepts and principles provide a framework for understanding the dynamics of Earth?s interconnected cycles and processes. Topics covered will include: The origin and composition of the earth, formation and classification of minerals and rocks, tectonic processes, concept of geologic time, geologic processes that shape Earth?s landscape, and the influence of geology on society.

GEOL 100L 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*
C-ID GEOL 100L
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*
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 150 Dinosaurs and Earth History (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in GEOL 100*
Transfer acceptability: *CSU; UC*
C-ID GEOL 110
Principles of historical geology. The origin and evolution of Earth and its biosphere, incorporating global tectonics, stratigraphy, fossils, biological evolution, geologic dating, and the processes that have influenced paleogeography during the past 4.6 billion years. 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*
C-ID GEOL 110L
Lab component exploring the principles of historical geology. Activities investigate the origin and evolution of Earth and its biosphere, global tectonics, stratigraphy, fossils, biological evolution, geologic dating, and the processes that have influenced paleogeography during the past 4.6 billion years.

GEOL 195A Regional Field Studies in Geology: Regional (1, 1.5, 2, 2.5, 3)
1½ - 4½ hours lecture - ½ - 1½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GEOL 100 and110*
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. Locations will not duplicate those specified in Geology 195B through 195F. Localities visited may vary from year to year.

GEOL 195B Field Studies in Geology: Southern California Coastal Region (1-3)
½ - 1½ hours lecture - 1½ - 4½ hours laboratory
Prerequisite: *GEOL 100, or GEOL 110*
Transfer acceptability: *CSU; UC*
Extended field studies of the geologic processes that shape the coastal region of Southern California. Emphasis on coastal processes and landforms, oceanographic climate, geologic development of the Continental Borderland and Transverse Ranges, formation and development of oil and gas resources, coastal sediment resource management, geologic hazards and human impacts in the coastal zone.

GEOL 195C Field Studies in Geology: Salton Trough Region (1-3)
½ - 1½ hours lecture - 1½ - 4½ hours laboratory
Prerequisite: *GEOL 100, or GEOL 110*
Transfer acceptability: *CSU; UC*
Extended field studies of the geologic processes that shape the Salton Trough region of Southern California. Emphasis on the active plate boundary zone, including opening of the Gulf of California and development of the San Andreas Fault system. Specific topics include tectonic-related landforms, earthquake dynamics and history, stratigraphy, evolution of Cenozoic climate and fauna, geothermal resources, and Salton Sea history and environmental management.

GEOL 195D Field Studies in Geology: Colorado Plateau Region (1-3)
½ - ½ hours lecture - 1½ - 4½ hours laboratory
Prerequisite: *GEOL 100, or GEOL 110*
Transfer acceptability: *CSU; UC*
Extended field studies of the geologic processes that shape the Colorado Plateau region. Emphasis on stratigraphy and paleogeography, development and hydrology of the Colorado River system, erosional landforms, fossil and mineral resources, regional structural deformation, igneous and volcanic history, and relationship to the ancestral and modern Rocky Mountains.

See Catalog addendum at http://www.palomar.edu/catalog

GEOL 195E Field Studies in Geology: Sierra Nevada Region (1-3)
½ - 1½ hours lecture - 1½ - 4½ hours laboratory
Prerequisite: *GEOL 100, or GEOL 110*
Transfer acceptability: *CSU; UC*
Extended field studies of the geologic processes and landscape evolution of the Sierra Nevada region. Emphasis on Pleistocene glacial history and glacial landforms, subduction zone processes including pluton emplacement and terrane docking history, Long Valley-Inyo Craters volcanic history, gold mineralization and mining history, regional fault systems, volcanism and uplift of the modern Sierra Nevada range.

GEOL 195F Field Studies in Geology: Death Valley Region (1-3)
½ - 1½ hours lecture - 1½ - 4½ hours laboratory
Prerequisite: *GEOL 100, or GEOL 110*
Transfer acceptability: *CSU; UC*
Extended field studies of the geologic processes that shape the Death Valley region. Emphasis on the tectonic evolution of the Death Valley and the Basin and Range province, depositional history of stratigraphic units from Proterozoic through Paleozoic, volcanic history, mineral and mining resources, structural landforms including the extensive faulting and folding, water resources, and climate history and development of desert landforms.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Graded only*
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*
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: H-201

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
Note: *Corresponds to two years of high school study.*
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 102 German II (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in GERM 101 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 201 German III (5)
5 hours lecture - 1 hour laboratory
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: MD-114
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.

GC 115 Graphics and Media: A Multicultural Perspective (3)
3 hours lecture
Note: *Cross listed as MCS 115*
Transfer acceptability: *CSU; UC*
An introduction to the impact of media technology on the visual arts from a multicultural perspective. Includes print, Internet, multimedia, and game design. Embraces the diversity and multicultural perspectives that reflect American demographics by presenting individual and collaborative contributions as well as strategies for designing niche marketing and advertising graphics for a multicultural society. Addresses the impact of globalization. Examines gender, ethnicity (African American, American Indian, Asian-Americans and/or Pacific Islanders, and Mexican American in particular), age, sexual orientation, and universal access for people with impairments.

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: MD-114
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).
- Digital Imaging
- Graphic Communications - Emphasis in Digital Distribution
- 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 Digital Distribution
- 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 Prepress Operator
- Electronic Publisher
- Screen Printer

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 122	Painter I	3
GCIP 140	Digital Imaging/Photoshop I	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 120	Designing for the Social Web	3
GCMW 203	Web Multimedia	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
PHOT 100	Elementary Film and Darkroom Photography	3
PHOT 130	Digital Darkroom I	3
TOTAL UNITS		**30**

Digital Imaging A.S. 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	Image Production Technologies	3
GCIP 182	Digital Prepress and Press II	3
TOTAL UNITS		**6**

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	Design for Print Production	3
GCIP 140	Digital Imaging/Photoshop I	3
GCIP 149	Page Layout and Design I	3
GCIP 152	Digital Publishing/Illustrator I	3
TOTAL UNITS		**12**

See Catalog addendum at http://www.palomar.edu/catalog

Graphic Communications: Emphasis in Digital Distribution

The image reproduction and design technology publishing industry--which encompasses computer-based document layout, composition, typography, illustration, image editing, digital imaging and distribution--has revolutionized the field of visual communications. There will be major growth in this field in the future. Employment opportunities will be with corporate digital publishers, advertising agencies, direct mail distributors, magazine and newspaper publishers, freelance publications, packaging printers and other still growing segments of the industry.

Prepares students to pursue employment in the image reproduction and design technology industry including both traditional printing processes and non-print digital imaging processes.

The 21 units of Program Requirements are the same for Graphic Communications: Emphasis in Digital Distribution, Emphasis in Management, and Emphasis in Production. Students may earn one or more of these by completing the Program Requirements and Emphasis Requirements listed for each program.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
GC 102	History of the Book and Publishing: Papyrus to Pixels	3
GCIP 103	Acrobat for Print	3
GCIP 105	Design for Print Production	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 149	Page Layout and Design I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCIP 260	Portfolio Development and Presentation	3
Emphasis Requirements		
GC 101	History of Graphic Communications	3
	or	
ARTD 210	Typography Design	3
GCIP 190/ GCMW 190	Copyright for Graphic Designers & Web Developers	1
GCIP 249	Page Layout and Design II	3
TOTAL UNITS		**28**

Graphic Communications: Emphasis in Management

The image reproduction and design technology publishing industry--which encompasses computer-based document layout, composition, typography, illustration, image editing, digital imaging and distribution--has revolutionized the field of visual communications. There will be major growth in this field in the future. Employment opportunities will be with corporate digital publishers, advertising agencies, direct mail distributors, magazine and newspaper publishers, freelance publications, packaging printers and other still growing segments of the industry.

Prepares students to pursue managerial employment in the image reproduction and design technology industry including both traditional printing processes and non-print digital imaging processes.

The 21 units of Program Requirements are the same for Graphic Communications: Emphasis in Digital Distribution, Emphasis in Management, and Emphasis in Production. Students may earn one or more of these by completing the Program Requirements and Emphasis Requirements listed for each program.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
GC 102	History of the Book and Publishing: Papyrus to Pixels	3
GCIP 103	Acrobat for Print	3
GCIP 105	Design for Print Production	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 149	Page Layout and Design I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCIP 260	Portfolio Development and Presentation	3
Emphasis Requirements (7 units)		
GC 101	History of Graphic Communications	3
	or	
CSIT 105	Computer Concepts and Applications	3
BMGT 105	Small Business Management	3
GCIP 191/ GCMW 191	Contracts for Graphic Designers & Web Developers	1
TOTAL UNITS		**28**

Graphic Communications: Emphasis in Production

The image reproduction and design technology publishing industry--which encompasses computer-based document layout, composition, typography, illustration, image editing, digital imaging and distribution--has revolutionized the field of visual communications. There will be major growth in this field in the future. Employment opportunities will be with corporate digital publishers, advertising agencies, direct mail distributors, magazine and newspaper publishers, freelance publications, packaging printers and other still growing segments of the industry.

Prepares students to pursue employment focused on production in the image reproduction and design technology industry including both traditional printing processes and non-print digital imaging processes.

The 21 units of Program Requirements are the same for Graphic Communications: Emphasis in Digital Distribution, Emphasis in Management, and Emphasis in Production. Students may earn one or more of these by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
GC 102	History of the Book and Publishing: Papyrus to Pixels	3
GCIP 103	Acrobat for Print	3
GCIP 105	Design for Print Production	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 149	Page Layout and Design I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCIP 260	Portfolio Development and Presentation	3
Emphasis Requirements		
GCIP 180	Image Production Technologies	3
GCIP 190/ GCMW 190	Copyright for Graphic Designers & Web Developers	1
GCIP 255	Electronic Package Design	4
TOTAL UNITS		**28**

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	3
GCIP 172	Textile Screen Printing	3
GCIP 270	Commercial Screen Printing	3
TOTAL UNITS		**9**

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
BMGT 105	Small Business Management	3
GCIP 105	Design for Print Production	3
GCIP 140	Digital Imaging/Photoshop I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCIP 170	Screen Printing	3
GCIP 172	Textile Screen Printing	3
GCIP 180	Image Production Technologies	3
GCIP 252	Digital Publishing/Illustrator II	3
GCIP 270	Commercial Screen Printing	3
Electives (Select one course)		
GCIP 240	Digital Imaging/Photoshop III	3
GCIP 255	Electronic Package Design	3
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**28 - 31**

COURSE OFFERINGS

GCIP 103 Acrobat for Print (3)
1½ hours lecture - 4½ hours laboratory
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 Design for Print Production (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: CSU
Planning, design and layout of visual communication for print production. Basic computer applications for layout of business communication set using color, images, paper, and the lithographic production processes to complete the package. Emphasis is on practical application.

GCIP 122 Painter I (3)
1½ hours lecture - 4½ 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 (3)
1½ hours lecture - 4½ hours laboratory
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. Focuses on basics.

GCIP 140A Digital Imaging/Photoshop IA (2)
1 hour lecture - 3 hours laboratory
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.

GCIP 140B Digital Imaging/Photoshop IB (2)
1 hour lecture - 3 hours laboratory
Note: *For intermediate levels*
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 140*
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. Focuses on the technical.

GCIP 149 Page Layout and Design I (3)
1½ hours lecture - 4½ hours laboratory
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 150 3D Product Development and Marketing (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
3D product development from concept through output, packaging and launching. Use a 3D program to model, a 3D printer to output, design and print packaging for, and market a product.

GCIP 152 Digital Publishing/Illustrator I (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Introduction to computer-generated digital layout. Illustrator will help the student generate new images or convert bitmapped images into PostScript. Quality levels needed for digital output will be evaluated.

GCIP 168 Digital Imaging with Drones (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
An introduction to using drones or unmanned vehicles for digital imaging. This hands-on course covers building, operating, and outfitting for still and video imaging and image capture.

GCIP 170 Screen Printing (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
An introduction to the screen-printing process. Students will produce artwork, select mesh, frames, & stencil systems, inks and substrates based on printing techniques. A combination of laboratory applications and theory will provide the foundation for this course. Acquisition of technical skills through the actual production of screen-printed products is a major goal of this course.

GCIP 172 Textile Screen Printing (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Theory and applications of screen printing for textile use. Students will produce artwork, select compatible inks, stencil systems, and substrates based on textile printing applications. A combination of laboratory applications and theory will provide the foundation for this course. Acquisition of technical skills through the actual production of screen-printed products is a major goal of this course.

See Catalog addendum at http://www.palomar.edu/catalog

GCIP 180 Image Production Technologies (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Theory and practical applications of image reproduction and design technology. Processes explored include sublimation, screenprinting, packaging, vehicle wraps, digital prepress and conventional printing on offset press.

GCIP 182 Digital Prepress and Press II (3)
1½ hours lecture - 4½ hours laboratory
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 190 Copyright for Graphic Designers & Web Developers (1)
1 hour lecture
Note: *Cross listed as GCMW 190*
Transfer acceptability: *CSU*
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 191 Contracts for Graphic Designers & Web Developers (1)
1 hour lecture
Note: *Cross listed as GCMW 191*
Transfer acceptability: *CSU*
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 192 Legal Issues for Graphic Designers and Web Developers (3)
3 hours lecture
Note: *Cross listed as GCMW 192*
Transfer acceptability: *CSU*
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 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.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 Digital 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.
Transfer acceptability: *CSU*
Graphic Communications topics in digital 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.
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 122 and GCIP 140*
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 140 or 141*
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. Focuses on the creative.

GCIP 249 Page Layout and Design II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 149*
Recommended Preparation: *GCIP 140*
Transfer acceptability: *CSU*
Utilizes current technologies for publishing to mobile devices, electronic book formats, screen media, and print. Students will learn to craft sophisticated electronic layouts by implementing typography, graphics, and multimedia into real-world projects.

GCIP 252 Digital Publishing/Illustrator II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GC 101 and GCIP 152*
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 (3)
1½ hours lecture - 4½ hours laboratory
Recommended Preparation: *GCIP 152*
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 140 and GCIP 152*
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 170 and GCIP 172* ***Transfer acceptability:*** *CSU*
An advanced study of various commercial screen-printing applications. Printing processes, business aspects, case studies, advanced color reproduction, close register with an emphasis on quality control.

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*
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*
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: MD-114
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -

AS 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
- Web Data Base Design

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
(Select five courses)		
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	1
TOTAL UNITS		**13-15**

Digital Animation, Compositing, and Music Certificate of Proficiency is also listed in Art and in Music.

Digital Media

This program encompasses digital video editing in 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/DBA 125	Beg Film/Video Field Production	3
	or	
GCMW 165	Digital Video Design	3
DBA 270	Digital Video Editing	3
DBA 275	Avid Editing for Television & Film	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
TOTAL UNITS		**15**

Digital Media Certificate of Proficiency is also listed under Digital Broadcast Arts.

Digital Video

Digital Video encompasses editing and design in using digital media. This degree prepares students for employment in the film, video, Internet, television and handheld industries.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 140	Digital Imaging/Photoshop I	3
GCMW 165	Digital Video Design	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
DBA/CINE 125	Beginning Film and Video Field Production	3
DBA 230	Digital Audio with Pro Tools	3
DBA 270	Digital Video Editing	3
DBA 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
DBA 50	Basic Television Acting	1
DBA 110	Broadcast Writing and Producing	3
DBA 150	Performance and Acting for Broadcast and Film	3
DBA /CINE 170	Introduction to Video Editing	3
DT 180	3D Studio Max - Introduction to 3D Modeling and Animation	3

See Catalog addendum at http://www.palomar.edu/catalog

ENTT/RTV 120	Basic Television Production	3
GCMW 101	Multimedia I	3
GCMW 104	Intro to Audio and Video for Post Production	3
GCMW 201	Multimedia II	3
GCMW 203	Web Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
GCIP 141	Digital Imaging/Photoshop II	3
GCMW 229	Content Publishing for Mobile, Web and Apps	3
GCIP 152	Digital Publishing/Illustrator I	3
GCIP 240	Digital Imaging/Photoshop III	3
DBA/CINE 225	Intermediate Film and Video Field Production	3
GCIP 168	Digital Imaging with Drones	3
TOTAL UNITS		**30**

Digital Video A.S. Degree Major or Certificate of Achievement is also listed under Digital Broadcast Arts.

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 190	Copyright for Graphic Designers & Web Developers	1
	or	
GCIP/ GCMW 191	Contracts for Graphic Designers & Web Developers	1
	or	
GCMW 232	Web Accessibility Design	1
GCMW 202	Web Page Layout II	3
GCMW 216	Web Data Base Design I	3
	or	
GCMW 220	Designing for Web Standards	3
GCMW 217	Online Store Design	3
TOTAL UNITS		**13**

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.S. 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 141	Digital Imaging/Photoshop II	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
Electives (Select two courses)		
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 248	Digital 3D Design and Sculpture	3
DT/ENGR 103	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
ENTT/DBA 120	Digital Television Production	3
GCIP 150	3D Product Development and Marketing	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 100	History of Multimedia	3
TOTAL UNITS		**29 – 30**

Emphasis in Multimedia Design

A.S. 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
GC/MCS 115	Graphics and Media: A Multicultural Perspective	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 101	Multimedia I	3
GCMW 201	Multimedia II	3
GCMW 204	Motion Graphics/Multimedia	3
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 140	Digital Imaging/Photoshop I	3
GCIP 152	Digital Publishing/Illustrator I	3
GCMW 100	History of Multimedia	3
GCMW 102	Web Page Layout I	3
GCMW 203	Web Multimedia	3
MUS 180	Computer Music I	3
TOTAL UNITS		**30**

Interactive Media Design A.S. 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
GCMW 101	Multimedia I	3
GCMW 102	Web Page Layout I	3
GCMW 104	Intro to Audio and Video for Post Production	3
	or	
GCMW 123	Audio for the Internet	4
GCMW 112	Mobile Devices/Web Page Layout	2
GCMW 115 `	Web Page Layout/Wordpress	2
GCMW 140	Web Graphics	3
GCMW/ GCIP 190	Copyright for Graphic Designers & Web Developers	1
GCMW/ GCIP 191	Contracts for Graphic Designers & Web Developers	1
GCMW 201	Multimedia II	3
GCMW 203	Web Multimedia	3
GCMW 229	Content Publishing for Mobile, Web and Apps	3

Electives (Select 1 course)		
DBA 230	Digital Audio with Pro Tools	3
GCIP 140	Digital Imaging/Photoshop I	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 100	History of Multimedia	3
GCMW 165	Digital Video Design	3
GCMW 202	Web Page Layout II	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
GCMW 220	Designing for Web Standards	3
GCMW 221	Best Practices for Web Design	3
MUS 180	Computer Music I	3
TOTAL UNITS		**30 - 31**

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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
BUS 157	E-Commerce	3
	or	
CSWB 110	Web Site Development with HTML5/CSS3	3
GCMW 102	Web Page Layout I	3
GCMW 120	Designing for the Social Web	3
GCMW 140	Web Graphics	3
GCMW 202	Web Page Layout II	3
GCMW 217	Online Store Design	3
	or	
GCMW 220	Designing for Web Standards	3
GCMW 229	Content Publishing for Mobile, Web and Apps	3
TOTAL UNITS		**21**

New Media Compositing, Authoring and Distribution

This program is directed at alternative methods of digital video compilation and distribution. Students will learn techniques and software to compile and composite digital video for release on mobile devices, screen media and Internet formats.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
GCIP 240	Digital Imaging/Photoshop III	3
GCIP 249	Page Layout and Design II	3
GCMW 101	Multimedia I	3
GCMW 165	Digital Video Design	3
GCMW 201	Multimedia II	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
GCMW 229	Content Publishing for Mobile, Web and Apps	3
Electives (select 3 units)		
ARTD 220	Motion Design	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DBA 230	Digital Audio with Pro Tools	3
DBA 270	Digital Video Editing	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 150	3D Product Development and Marketing	3
GCIP 168	Digital Imaging with Drones	3
GCMW 105	Web Page Layout with CMS	3
GCMW 112	Mobile Devices/Web Page Layout	2
GCMW 115	Web Page Layout/WordPress	2
GCMW 123	Audio for the Internet	4
GCMW/ GCIP 191	Contracts for Graphic Designers & Web Developers	1
GCMW 202	Web Page Layout II	3
GCMW 203	Web Multimedia	3
TOTAL UNITS		**30**

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	3
GCMW 217	Online Store Design	3
GCMW 226	Web Data Base Design II	3
Electives (Select at least one course, minimum 3 units total)		
BUS 180	Access Basic	1
CSWB 210	Active Server Pages	3
GCIP/ GCMW 190	Copyright for Graphic Designers & Web Developers	1
GCIP/ GCMW 191	Contracts for Graphic Designers & Web Developers	1

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GCMW/ GCIP 192	Legal Issues for Graphic Designers & Web Developers	3
GCMW 105	Web Page Layout with CMS	3
GCMW 120	Designing for the Social Web	3
GCMW 154	Preparing Web Graphics	1
GCMW 164	Interactive Web Graphics	1
GCMW 216	Web Data Base Design 1	3
GCMW 220	Designing for Web Standards	3
TOTAL UNITS		**12**

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 (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Introduction to multimedia authoring software and motion graphics combining text, graphics, sound, animation, video and user interface to produce effective visual presentations.

GCMW 102 Web Page Layout I (3)
1½ hours lecture - 4½ hours laboratory
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.

GCMW 104 Color Correction and Sound for Multimedia (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Introduction to finishing techniques using video and sound for post production. Includes an overview of color correction and sound design for the multimedia industry. Course will consider current practices in color grading and soundtracks for Internet, mobile devices, screen media, and physical delivery formats. This is a hands-on course using digital tools for creating and/or manipulating audio and video for multimedia projects.

GCMW 105 Web Page Layout with CMS (3)
1½ hours lecture - 4½ hours laboratory
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 106 Multimedia for Social Networking (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Introduction to the language and practice of media production as it is implemented for social networking. Students will learn the moviemaking process: preproduction; capture footage; capture audio; import digital video and audio to the computer from the camera; edit; export; and distribute. In this hands-on course, students will organize and share their photo library; create polished video and soundtracks; and produce movies, photobooks, podcasts, Websites, blogs, and custom DVDs. By becoming media producers, students will cultivate their analytical abilities as students of communication and as critics and viewers of media and cultural products which are forms of communication technology.

GCMW 112 Mobile Devices/Web Page Layout (2)
1 hour lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Hands-on course that explores important considerations for making Web pages attractive and usable for a wide variety of mobile devices. Explores a variety of development tools for creating and testing Web pages for mobile screens and different strategies for deployment.

GCMW 115 Web Page Layout/WordPress (2)
1 hour lecture - 3 hours laboratory
Transfer acceptability: *CSU*
A hands-on course on WordPress, a flexible software for blogging and content management. Students will learn WordPress installation, implementation, enhancements with add-ins, and customization of design and features.

GCMW 120 Designing for the Social Web (3)
1½ hours lecture - 4½ hours laboratory
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
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 (3)
1½ hours lecture - 4½ hours laboratory
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 150 User Experience (UX) Design (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Examines the fundamental concepts, techniques, practices, workflows, and tools associated with the practice of user experience design in web and mobile devices. Intended for anyone interested in learning more about creating interactive designs to ensure a quality user experience, including graphic designers, web developers, software engineers, and programmers.

GCMW 154 Preparing Web Graphics (1)
3 hours laboratory
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
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 (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Explores project planning, set-up, editing, and output of digital video. Incorporates sound, graphics, 2D animation, video, and text for full-screen, web, and DVD playback. Projects and assignments utilize transitions, superimposing, transparency and keying, video, audio, and other special effects.

GCMW 177 Search Engine Optimization (SEO) for Web Design (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *GCMW 102*
Transfer acceptability: *CSU*
Integrate Search Engine Optimization (SEO) techniques to improve search engine traffic, visibility, conversion, and Return on Investment (ROI). This hands-on course presents guidelines and techniques for SEO strategy and implementation. Optimize Website design through complex design technologies such as wireframes, dynamic content, pay per click, keywords, copywriting, graphics, and multimedia. Incorporate blogs, forums, and chat. Measure traffic with analytics and metrics.

GCMW 190 Copyright for Graphic Designers & Web Developers (1)
1 hour lecture
Note: *Cross listed as GCIP 190*
Transfer acceptability: *CSU*
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 191 Contracts for Graphic Designers & Web Developers (1)
1 hour lecture
Note: *Cross listed as GCIP 191*
Transfer acceptability: *CSU*
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 192 Legal Issues for Graphic Designers and Web Developers (3)
3 hours lecture
Note: *Cross listed as GCIP 192*
Transfer acceptability: *CSU*
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 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.
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.
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 (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *GCMW 101 or GCMW 205*
Transfer acceptability: *CSU*
Strategies and techniques for designing successful multimedia projects in Apple Logic Pro X with emphasis on audio for Internet, video, composites and motion graphics.

GCMW 202 Web Page Layout II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 102 and GCMW 140*
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 102*
Recommended preparation: *GCIP 140*
Transfer acceptability: *CSU*
Discussion of current technologies, social issues, and design theory related to multimedia for the Internet. Practical application of text, graphics, audio, video and animation for web, mobile devices and screen media formats.

GCMW 204 Motion Graphics for Multimedia (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *GCIP 140*
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 (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Concepts, design and development of digital video production and editing skills as they relate to Internet, mobile devices, screen media, and physical delivery formats. Students will incorporate typography, graphics, animation and video into real-world projects.

GCMW 206 Motion Graphics Production and Compositing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 204 and 205*
Transfer acceptability: *CSU*
Combines skills learned in multiple disciplines to create visual and special effects. Students may use knowledge from GCMW and/or DBA courses with that learned in ARTI or DT to composite scenes incorporating 3D rendered characters with live video and matte paintings.

GCMW 216 Web Database Design I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in 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 (3)
1½ hours lecture - 4½ hours laboratory
Recommended Preparation: *Ability to use a WYSIWYG Web page editor, or text editor, to create a simple Web page and upload it to the Web. A course such as GCMW 102 would be appropriate and can be completed at the same time as this course*
Transfer acceptability: *CSU*
Design of interactive commercial web sites with emphasis on online shopping carts. Hands-on production of various types of online stores. Evaluation of various e-commerce solutions, security/privacy concerns, payment options, user experience, backend tools, front end design and site promotion. Criterion for choosing the best e-commerce solution for specific e-commerce projects.

GCMW 220 Designing for Web Standards (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *GCMW 102*
Transfer acceptability: *CSU*
Web site design and production using the current standards of the hypertext markup language (HTML) CSS, Cascading Style Sheets. Hands on course will emphasize creation of Web pages, basic styling for Web Page Layout and publishing them on the Web. Heavy emphasis on page layout using Cascading Style Sheets.

GCMW 221 Best Practices for Web Design (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *Knowledge of basic CSS for Web page layout. Experience publishing a multi-page Web site to the Web. GCMW 220 or equivalent knowledge/experience is recommended.*
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 builds on the skills of basic CSS Web page layout and adds more advanced skills, as well as newer techniques defined in CSS3 and HTML 5.

GCMW 226 Web Database Design II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 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 servers such as MySQL. Learners will design and manage a remote database on a remote database server using popular database management tools. More advanced Web database applications will be emphasized. Students will develop an advanced Web database project.

GCMW 229 Content Publishing for Mobile, Web and Apps (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in GCIP 149, GCMW 205*
Transfer acceptability: *CSU*
Explores various aspects of multimedia content creation for interactive publishing and the web. Utilizes group work and project management skills in content creation and publishing. Students evaluate and select viable projects, create and author various content, and deliver to appropriate mobile device, screen media and Internet formats.

GCMW 232 Web Accessibility Design (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in GCMW 202 and 220*
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 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*
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*
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 Department of Health, Kinesiology and Recreation Management for further information.
(760) 744-1150, ext. 2462
Office: O-10

COURSE OFFERINGS

HE 100 Health Education and Fitness Dynamics (3)
3 hours lecture
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
Transfer acceptability: *CSU; UC*
Fitness lab course designed to develop and encourage positive attitudes and habits with regards to health education and fitness dynamics. Lab participation 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 student's fitness accomplishments.

HE 104 Emergency Medical Responder (3)
3 hours lecture
Note: *Cross listed as EME 100*
Transfer acceptability: *CSU; UC*
C-ID KINE 101
Covers national curriculum for Emergency Medical Responder (EMR) training. Includes the study and application of emergency medical skills and procedures, basic anatomy and physiology, terminology, and prevention of disease transmission. CPR certification from the American Heart Association.

HE 165 Fundamentals of Nutrition (3)
3 hours lecture
Note: *Cross listed as NUTR 165*
Transfer acceptability: *CSU; UC – NUTR 165, NUTR 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
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, and Nursing Education

History (HIST)

Contact the Economics, History and Political Science Department for further information.
(760) 744-1150, ext. 2412
Office: MD-375

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*
C-ID HIST 170
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*
C-ID HIST 180
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.

See Catalog addendum at http://www.palomar.edu/catalog

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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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, Nutrition and Child Development

Humanities (HUM)

Contact the English Department for further information.
(760) 744-1150, ext. 2392
Office: H-302B

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.
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 and Drafting Technology for additional courses

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-102A

COURSE OFFERINGS

IT 108 Technical Mathematics (3)
3 hours lecture
Note: *Cross listed as WELD 108*
Transfer acceptability: *CSU*
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 115 Industrial Safety (2)
2 hours lecture
Transfer acceptability: *CSU*
Prepares the student to enter the workforce in an awareness of safety. Includes a history and overview; laws and regulations; assessment, prevention, and controls; and the management of health and safety issues.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Industrial Technology. See class schedule for specific topic covered. Course title will designate subject covered.

Information Technology

See CSIT - Information Technology

Insurance (INS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: MD-341

Associate in Science Degrees -
AS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 104	Accounting Spreadsheet Concepts	2
ACCT 201	Financial Accounting	4
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 Basic	1
BUS 205	Business Communication	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 Code and Ethics	1
CE 100	Cooperative Education	1 - 4
TOTAL UNITS		**33 - 36**

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
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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*
Transfer acceptability: *CSU*
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: P-8A

Associate in Science Degrees -

AS 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

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

First Semester		
ID 100	Interior Design	3
ID 105	Materials and Processes in Interior Design	3
BUS 125	Business English	3
Second Semester		
ID 110	Professional Practices in Interior Design	3
ID 135	Fabrics for Designers	3
ID/ARCH 150	Computer Aided Drafting for Designers(CADD)	3
CE 150	Cooperative Education Internship	2 - 3
TOTAL UNITS		**20 - 21**

Recommended Electives: ID 115, 120, 130, 145,198

Interior Design - A.S. Degree Major

Coordinated by educators and professional interior designers, this A.S. 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.S. DEGREE MAJOR

Program Requirements		**Units**
First Semester		
ID 100	Interior Design	3
ID 105	Materials and Processes in Interior Design	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/ARCH 150	Computer Aided Drafting for Designers (CADD)	3
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		**42 - 43**

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 Resources (3)
3 hours lecture
Transfer acceptability: *CSU*
Selection, care, and use of sustainable 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
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
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
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) (3)
1½ hour lecture - 4½ hours laboratory
Note: *Cross listed as ARCH 150*
Transfer acceptability: *CSU*
Introduction to computer aided drafting for architects and interior designers, to include two and some three-dimensional drawing, blocks, draw and modify 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
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*
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
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)
1½ hour lecture - 1½ hours laboratory
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 (1)
½ hour lecture - 1½ hours laboratory
Transfer acceptability: *CSU*
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*
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: MD-341

Associate in Science Degrees -
AS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ACCT 104	Accounting Spreadsheet Concepts	2
ACCT 201	Financial Accounting	4
BUS 100	Introduction to Business	3
BUS 110	Business Mathematics	3
BUS 155	Marketing	3
BUS 205	Business Communication	3
IBUS 100	Introduction to International Business and Management	3
IBUS 105	International Marketing	3
IBUS 110	The Cultural Environment of International Business	3
IBUS 115	International Banking and Finance	3
IBUS 120	Essentials of Import/Export Procedures	3
CE 100	Cooperative Education	2 - 4
TOTAL UNITS		**35 - 37**

Recommended Electives: ANTH 105; ECON 110; GEOG 105; PHIL 114; 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in International Business. See Class Schedule for specific topic offered. Course title will designate subject covered.

Internet

See Graphic Communications - Multimedia and Web, and CSIT - Web Technology

Italian (ITAL)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: H-201

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
Note: *Corresponds to two years of high school study.*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 - 1 hour laboratory
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. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in Italian. Course combines in-class instruction and practice with self-paced study in the World Languages Laboratory. Class is largely conducted in Italian.

Japanese (JAPN)

Contact the World Languages Department for further information.
(760) 744-1150, ext. 2390
Office: H-201

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, and Kanji. Course combines in-class instruction and practice with self-paced study in the World Languages Resource Center. This beginning-level course is for students with no previous coursework in Japanese.

JAPN 102 Japanese II (5)
5 hours lecture - 1 hour laboratory
Prerequisite: *A minimum grade of 'C' in JAPN 101, 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 130 Introduction of Japanese Culture and Literature (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course is designed to provide students with a broad understanding of Japanese culture and society through non-fictional and fictional literary texts and films from ancient times to present. It will include a brief survey of Japanese history as it relates to cultural developments in Japanese literature, film and the arts. There will be a special focus on critically examining literary texts and films to understand and interpret their cultural, social and historical context through primary sources (literature in translation, plays, film, anime, manga, etc.) and secondary sources (literary and cultural criticism). Select readings will introduce students to various topics including folklore, westernization, women's studies, war, and current popular culture. This course is discussion-based and will be conducted in English.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 - 1 hour laboratory
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. Course combines in-class instruction with self-paced study in the World Languages Laboratory. Class is largely conducted 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 Media Studies Department for further information.
(760) 744-1150, ext. 2440
Office: P-31
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Multimedia Journalism

Associate in Arts for Transfer -
AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Journalism

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Multimedia 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	Multimedia Writing and Reporting	3
JOUR 105	Multimedia News Writing and Production	3
DBA/ENTT 120	Digital Television Production	3
DBA 240B	Beginning Television News/Sports	3
DBA 240D	Advanced Television News/Sports	3
TOTAL UNITS		**15**

The Broadcast Journalism Certificate of Proficiency is also listed under Digital Broadcast Arts.

Journalism

The Associate in Arts in Journalism for Transfer teaches students the methods and techniques for gathering, processing and delivering news. It prepares students for careers in print and multimedia journalism. It includes instruction in news writing and editing, reporting, multimedia story production, and professional standards and ethics.

Careers in this field include book editor, copywriter, film critic, foreign correspondent, freelance writer, online editor, multimedia story producer, journalist, magazine editor, news anchor, newspaper editor, publicist, sportswriter and technical writer. This major may also lead to many other careers. For additional possibilities, visit the Career Center.

Pursuant to SB 1440, the following completion requirements must be met:

(1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:

(A) The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.

(B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.

(2) Obtainment of a minimum grade point average of 2.0."

ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is not an acceptable grade for courses in the major.

AA-T TRANSFER MAJOR

Program Requirements		
COMM 100	Introduction to Mass Communication	3
JOUR 101	Multimedia Writing and Reporting	3
JOUR 105	Multimedia News Writing and Production	3
List A - Select 1 course		
COMM 104	Introduction to Public Relations	3
JOUR 130	Writing for Online Journalism	3
JOUR 140/ PHOT 140	Photojournalism	3
JOUR 205	Intermediate Multimedia News Writing and Production	3
List B - Select 2 courses		
ECON 101	Principles of Economics (Macro)	3
	or	
ECON 102	Principles of Economics (Micro)	3
ENG 202	Critical Thinking and Composition	4
MATH 120	Elementary Statistics	4
PHIL 200	Critical Thinking	3
PHOT 100	Elementary Film and Darkroom Photography	3
SPCH 105	Beginning Argumentation and Debate	3
TOTAL UNITS		**18 - 19**

Multimedia Journalism

The Journalism program is designed to teach students about working in multiple media genres and prepares them to become critical producers and consumers of mass media content. Students learn how to report, write, design and work in print, web, video, and social media. The students also learn about media ethics and responsibility. The program goal is to make students better able to understand media institutions and how to add their voices to the process of shaping their cultural environment.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		**Units**
JOUR 101	Multimedia Writing and Reporting	3
JOUR 105	Multimedia News Writing and Production	3
JOUR 110L	Multimedia Journalism Laboratory	1
JOUR 120	Magazine Editing and Production	3
JOUR 205	Intermediate Multimedia News Writing and Production	3
JOUR 210	Advanced Multimedia News Production	3
JOUR 215	Advanced Multimedia News Editing	3
	or	
JOUR/PHOT 140	Photojournalism	3
COMM 100	Introduction to Mass Communication	3
COMM 104	Introduction to Public Relations	3
COMM 105	Race, Gender and Media Effects	3
POSC 101	Introduction to Politics and American Political Institutions	3
TOTAL UNITS		**31**

Recommended Electives: JOUR 103, JOUR 295
Note: JOUR 105, 205, 210, and 215 may not be taken concurrently.

COURSE OFFERINGS

JOUR 101 Multimedia Writing and Reporting (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID JOUR 110
Principles of multimedia journalism. Develop news judgment and clear writing for various media platforms, including print, broadcast and online. Evaluation of news reporting techniques and sources, and ethical and legal considerations of the media. Preparation for a career in journalism.

JOUR 103 Magazine Feature Writing (3)
3 hours lecture
Recommended preparation: *JOUR 101*
Transfer acceptability: *CSU*
Feature writing for publication in college magazine and online. Development of clear writing skills. Evaluation of interviewing techniques and information gathering. Applications of ethical and legal standards. Emphasis on practical application for print and online newspaper, magazine and web site journalism.

JOUR 105 Multimedia News Writing and Production (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
C-ID JOUR 130
Emphasis on writing for The Telescope, Palomar's campus newspaper. Study of story development, reporting, and interviewing according to journalism standards. Includes writing news, features, sports, and opinion stories for the print newspaper or online at www.the-telescope.com. Exposure to multimedia skills such as blogging, video editing, and photo slide shows.

JOUR 110L Multimedia Journalism Laboratory (1)
3 hours laboratory
Transfer acceptability: *CSU*
Practice in reporting, writing, photography or designing for the campus newspaper, *The Telescope* and its website, www.The-Telescope.com

JOUR 112L Laboratory for Online Journalism (1)
3 hours laboratory
Transfer acceptability: *CSU*
Practice in online reporting, writing, photographing and multimedia. Design and manage content for the newspaper and magazine websites.

JOUR 120 Magazine Editing and Production (3)
3 hours lecture
Recommended Preparation: *JOUR 101*
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 130 Writing for Online Journalism (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID JOUR 120
Introduction to multimedia storytelling with a journalism emphasis. Techniques explored include use of video, photos, audio, animation, and text to convey interactive news and feature stories through the Internet and other electronic media. Also includes techniques in digital research, critical thinking, and synthesis.

JOUR 140 Photojournalism (3)
1½ hours lecture - 4½ hours laboratory
Recommended preparation: *PHOT 120*
Note: *Cross listed as PHOT 140*
Transfer acceptability: *CSU*
C-ID JOUR 160
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 200 Mastering Social Media (3)
3 hours lecture
Transfer acceptability: *CSU*
Explores social media from a content perspective. Learn the fundamentals of social media, the theories behind writing for it, as well as the ethics and standards of information generated. Also explores how to use social media to get content to the masses.

JOUR 205 Intermediate Multimedia News Writing and Production (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
C-ID JOUR 210
Intermediate work in reporting, writing, editing and multimedia projects for The Telescope, Palomar's campus newspaper. Continuation of beat reporting, interviewing and public affairs reporting. Introduction of page layout, graphic design and photography.

JOUR 210 Advanced Multimedia News Production (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Editing role at independent campus newspaper, The Telescope, and its website, www.the-telescope.com. Emphasis on assigning stories, working with writers, and polishing work for multimedia platforms. Advanced work on newspaper and website design.

JOUR 215 Advanced Multimedia News Editing (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Advanced editing skills for the independent campus newspaper, The Telescope and its website, www.the-telescope.com. Advanced work on producing newspaper content for multimedia platforms as well as learning to make editorial decisions. Emphasis on social media and multimedia pieces for Internet news consumers.

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*
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 also Multicultural Studies

Contact the Multicultural Studies Department for further information.
(760) 744-1150, ext. 2206
Office: MD-354

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.

Kinesiology

Formerly Physical Education
See also Athletics and Competitive Sports

Contact the Department of Health, Kinesiology and Recreation Management for further information.
(760) 744-1150, ext. 2459
Office: O-10

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).
• Kinesiology

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).
• Adult Fitness and Health

PROGRAMS OF STUDY

Adult Fitness and Health

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
CSIT 105	Computer Concepts and Applications	3
EME 100/HE 104	Emergency Medical Responder	3
NUTR 165/ HE 165	Fundamentals of Nutrition	3
HE 100	Health Education and Fitness Dynamics	3
KINE 100	Introduction to Physical Education and Kinesiology	3
PSYC 100	Introduction to Psychology	3
ZOO 203	Physiology	4
Group I (Select a minimum of 3 units)		
CE 100	Cooperative Education	1 - 4
ENG 100	English Composition	4
MATH 120	Elementary Statistics	4
SPCH 100	Oral Communication	3
Group II (Select a minimum of 3 units)		
NUTR 170	Nutrition: Eating Disorders and Obesity	3
PSYC 115	The Psychology of Personal Growth and Development	3
PSYC 210	Physiological Psychology	4
SOC/PSYC 125	Human Sexuality	3
ZOO 200	Anatomy	4
Group III (Select a minimum of 1 unit)		
KINE 103	Evaluative Fitness	2.5
KINE 125A	Aerobic Fitness Training Modes	1 - 2
KINE 125B	Anaerobic Fitness Training Modes	1 - 2
KINE 125C	Functional Fitness Training Modes	1 - 2
KINE 125D	Motor Fitness/Hand-Eye/Foot Skills	1 - 2
KINE 130	Individualized Fitness Exercise	1 - 2
KINE 165A	Beginning Softball	1 - 2
KINE 165C	Advanced Softball	1 - 2
KINE 168A	Beginning Soccer	1 - 2
KINE 168B	Intermediate Soccer	1 - 2
KINE 168C	Advanced Soccer	1 - 2
KINE 170A	Team Sports - Baseball Strategies	1 - 2
KINE 170B	Team Sports- Baseball Biomechanics	1 - 2
KINE 170C	Team Sports- Basketball Strategies	1 - 2
KINE 170D	Team Sports- Basketball Biomechanics	1 - 2
KINE 170E	Team Sports- Football Strategies	1 - 2
KINE 170F	Team Sports- Football Biomechanics	1 - 2
KINE 170G	Team Sports- Soccer Strategies	1 - 2

KINE 170H	Team Sports- Soccer Biomechanics	1 - 2
KINE 170I	Team Sports- Softball Strategies	1 - 2
KINE 170J	Team Sports- Softball Biomechanics	1 - 2
KINE 170K	Team Sports- Volleyball Strategies	1 - 2
KINE 170L	Team Sports- Volleyball Biomechanics	1 - 2
KINE 170O	Team Sports- Wrestling Strategies	1 - 2
KINE 170P	Team Sports- Wrestling Biomechanics	1 - 2
KINE 231	Water Safety Instruction	3
KINE 232	Teaching Swimming	1 - 1.5

Group IV - Health/Fitness Courses (Select 1 course)

HE 100L	Health Performance Lab	1 - 2
KINE 128A	Wellness Modalities - Cardio	1 - 2
KINE 128B	Wellness Modalities -Muscular	1 - 2
KINE 128C	Wellness Modalities - Functional	1 - 2
KINE 128D	Wellness Modalities - Periodization	1 - 2
KINE 140A	Beginning Tennis - Techniques and Analysis	1 - 2
KINE 140B	Intermediate Tennis - Techniques and Analysis	1 - 2.5
KINE 140C	Advanced Tennis - Techniques and Analysis	1 - 2
KINE 150A	Beginning Weight Training	1 - 2
KINE 150B	Intermediate Weight Training - Strength Training for Total Fitness	1 - 2
KINE 150C	Advanced Weight Training - Power Lifting and Plyometrics Training	1 - 2
TOTAL UNITS		**33 - 34**

Kinesiology

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**
EME 100/HE 104	Emergency Medical Responder	3
HE 100	Health Education and Fitness Dynamics	3
HE/NUTR 165	Fundamentals of Nutrition	3
KINE 100	Introduction to Kinesiology	3
KINE 176	Athletic Training	3
PSYC 100	Introduction to Psychology	3
ZOO 200	Anatomy	4
ZOO 203	Physiology	4

Select 1 course (An ACS course in these sports may be substituted for one.)

HE 100L	Health Performance Lab	1 - 2
KINE 128A	Wellness Modalities- Cardio	1 - 2
KINE 128B	Wellness Modalities-Muscular	1 - 2
KINE 128C	Wellness Modalities- Functional	1 - 2
KINE 128D	Wellness Modalities- Periodization	1 - 2
KINE 135A	Beginning Swimming	1 - 2
KINE 135B	Intermediate Swimming	1 - 2
KINE 135C	Advanced Swimming	1 - 2
KINE 140A	Beginning Tennis - Techniques and Analysis	1 - 2
KINE 140B	Intermediate Tennis - Techniques and Analysis	1 - 2.5
KINE 140C	Advanced Tennis - Techniques and Analysis	1 - 2
KINE 150A	Beginning Weight Training	1 - 2
KINE 150B	Intermediate Weight Training - Strength Training for Total Fitness	1 - 2
KINE 150C	Advanced Weight Training - Power Lifting and Plyometrics Training	1 - 2

Select 2 courses (An ACS course in these sports may be substituted for one.)

KINE 117B	Intermediate Golf - Techniques and Analysis	1 - 2.5
KINE 137A	Beginning Water Polo	1 - 2
KINE 155B	Intermediate Volleyball - Techniques and Analysis	1 - 2.5
KINE 165A	Beginning Softball	1 - 2
KINE 165B	Intermediate Softball	1 - 2
KINE 165C	Advanced Softball	1 - 2
KINE 166A	Beginning Basketball	1 - 2
KINE 166B	Intermediate Basketball	1 - 2
KINE 166C	Advanced Basketball	1 - 2
KINE 168A	Beginning Soccer	1 - 2
KINE 168B	Intermediate Soccer	1 - 2
KINE 168C	Advanced Soccer	1 - 2
KINE 210	Professional Prep for Football - Theory and Mental Preparation	3
KINE 210L	Professional Prep for Football Lab - Biomechanic Application	1 - 1.5
KINE 211	Professional Prep. for Basketball - Theory and Mental Preparation	3
KINE 211L	Professional Preparation for Basketball Lab	1 - 1.5
KINE 212	Professional Prep for Baseball - Theory and Mental Preparation	3
KINE 212L	Professional Prep for Baseball Lab - Biomechanic Application	1 - 1.5
KINE 214	Professional Preparation for Water Polo - Theory and Biomechanic Application	1 - 2
KINE 215	Professional Prep for Wrestling - Theory and Mental Preparation	3
KINE 215L	Professional Prep Wrestling Lab - Biomechanic Application	1 - 1.5
KINE 216	Professional Prep for Golf - Theory and Mental Preparation	3
KINE 216L	Professional Prep for Golf Lab - Biomechanic Application	1 - 1.5
KINE 217	Professional Prep Tennis - Theory and Mental Preparation	3
KINE 217L	Professional Prep Tennis Lab - Biomechanic Application	1 - 1.5
KINE 231	Water Safety Instruction	3
TOTAL UNITS		**29 - 34**

COURSE OFFERINGS

Individual courses are not repeatable. State Regulations (Title 5, Sections 55040-55041) also limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Kinesiology have limitations on the number of times a student may enroll. Specific information about enrollment limitations for Kinesiology classes is available at http://www.palomar.edu/schedule/restrictions.htm

Student athletes competing in an Athletic and Competitive Sport are limited to 175 contact hours per year in Kinesiology courses that focus on conditioning or skill development for that sport. Specific information about enrollment limitations for Kinesiology classes is available at http://www.palomar.edu/schedule/

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

UC credit limitations: All ACS and KINE activity courses combined: maximum credit, 4 units

For transfer information, consult a Palomar College Counselor.

KINE 47 Physical Education/Kinesiology Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Non-degree Applicable
Topics in Physical Education/Kinesiology. See class schedule for specific topic covered. Course title will designate subject covered.

KINE 100 Introduction to Kinesiology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID KIN 100
Introduction to an interdisciplinary approach to the study of human movement. Sub-disciplines will introduce students to the various fields closely related to Kinesiology. Focus on studying the goals and objectives of modern Kinesiology with a view toward the development of a basic philosophy and background for the professions of teaching, coaching, allied health and/or fitness career.

KINE 102 Physical Education in Elementary Schools, Movement and Theory (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. Specific attention will also be given to drugs/narcotics, alcohol, and tobacco and the physiological and sociological effects of each.

KINE 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.

KINE 114A Beginning Walkfit (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction and training in walking techniques for the beginning walker. Programs focusing on health, cardiovascular fitness and weight loss.

KINE 114B Intermediate Walkfit (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction and training in high intensity and speed walking techniques to increase aerobic capacity and calorie expenditure.

KINE 114C Advanced Walkfit (1-2)
½, 1, or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction and training in long distance walking techniques to increase endurance and distance for the advanced walker.

KINE 117A Beginning Golf -Techniques and Analysis (1, 1.5, 2)
(Formerly KINE 117)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Introductory course teaching the history, traditions and the development of the basic skills of golf. Swing fundamentals, scoring, rules, etiquette, and course layout will be introduced. Application of golf course management skills through practice and situational play will be emphasized.

KINE 117B Intermediate Golf- Techniques and Analysis (1, 1.5, 2, 2.5)
(Formerly KINE 118)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Designed for those students who have mastered the basic skills of beginning golf. Includes the techniques (pitching, chipping, putting, sand shots and wood shots) that should enable the intermediate student to play a successful round of golf. Situation analysis, course management and strategy will also be covered.

KINE 117C Advanced Golf - Techniques and Analysis (1, 1.5, 2)
(Formerly KINE 119)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An advanced level course teaching skills of golf strokes and application to playing strategies. Emphasis will be on the implementation of learned specialty shots, advanced techniques, statistical performance goals and mental aspects of course management in competition.

KINE 125A Aerobic Fitness Training Modes (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Training in cardio respiratory endurance, as it pertains to exercise programs and/or performance level. Methods to achieve training may include, but are not limited to: aquatics, running, and walking. Emphasis is on pre-testing, post-testing, and the overall development of personal fitness.

KINE 125B Anaerobic Fitness Training Modes (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Training in muscular strength and core fitness as it pertains to exercise programs and/or performance-level anaerobic fitness. Methods to achieve fitness may include, but are not limited to: resistance, isometric, isotonic and core exercise training techniques.

KINE 125C Functional Fitness Training Modes (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Training in functional fitness through exercise specific to individual occupational goals. Methods to achieve training may include, but are not limited to: flexibility, skill training, body and muscle balance and postural improvement.

KINE 125D Motor Fitness/Hand-Eye/Foot Skills (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Training in motor fitness skills including hand-eye and foot skills. Methods to achieve training may include, but are not limited to: speed training, and/or neuromuscular training. Emphasis is on pre-testing, post-testing and overall development of personal fitness.

KINE 128A Wellness Modalities- Cardio (1, 1.5, 2)
3, 4½ or 6 hours laboratory
Transfer acceptability: *CSU; UC*
Note: *Open entry/Open exit; Pass/No Pass grading only; may not be taken as an audit*
Cardio-respiratory conditioning through aerobic fitness programs. Activities include treadmill, stair-master, stationary biking, rowing, and elliptical machines. Individualized tests determine the cardio-respiratory conditioning program and the level of performance expected to improve overall health and fitness.

KINE 128B Wellness Modalities-Muscular (1, 1.5, 2)
3, 4½ or 6 hours laboratory
Transfer acceptability: *CSU; UC*
Note: *Open entry/Open exit; Pass/No Pass grading only; may not be taken as an audit*
Physical conditioning through individualized resistance training programs. Focus is on muscular strength, muscular endurance and core training. Activities may include, but are not limited to body weight exercises, calisthenics, weight machines, resistance bands, kettle balls, etc.

KINE 128C Wellness Modalities- Functional (1, 1.5, 2)
3-6 hours laboratory
Transfer acceptability: *CSU; UC*
Note: *Open entry/Open exit; Pass/No Pass grading only; may not be taken as an audit*
Functional fitness training designed to apply directly to students individual fitness goals. Activities include but are not limited to exercises aimed to assist in performing activities of daily living, sport-specific training, rehabilitative programs, etc. based on the individuals physical abilities and/or physical limitations.

See Catalog addendum at http://www.palomar.edu/catalog

KINE 128D Wellness Modalities- Periodization (1, 1.5, 2)
3-6 hours laboratory
Transfer acceptability: *CSU; UC*
Note: *Open entry/Open exit; Pass/No Pass grading only; may not be taken as an audit*
Physical conditioning through the components of physical fitness; cardiorespiratory endurance, muscular strength, muscular endurance and flexibility. Initial fitness measurements determine the conditioning program, level of performance, and planned variations in individualized programs to improve overall fitness.

KINE 130 Individualized Fitness Exercise (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
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, individual or group (team) performance, physical performance, stress management, weight management, self-esteem, behavior modification, and injury rehabilitation.

KINE 135A Beginning Swimming (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction will include basic water safety techniques, proper breathing and arm and leg techniques that apply to the basic swimming strokes such as front crawl, back crawl, and treading water. The use of skill development aids will be introduced.

KINE 135B Intermediate Swimming (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An introduction to intermediate swimming strokes including breaststoke and butterfly, starts, and turns. Emphasis is on basic diving and turning techniques and continued skill development and fitness conditioning.

KINE 135C Advanced Swimming (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Designed for the highly skilled, competitive swimmer with an emphasis on principles of advanced training programs including distance, sprint, stroke and conditioning techniques for competition.

KINE 137A Beginning Water Polo (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Introduction to the fundamentals of water polo including safety, rules, related swimming strokes, egg-beater kick, ball handling skills and field and goalie positions.

KINE 140A Beginning Tennis: Techniques and Analysis (1-2)
(Formerly KINE 140)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Focus on the basic elements of the game of tennis for the beginning-level student. Introduces terminology, court areas, scoring and court etiquette. Fundamental techniques for the basic tennis strokes, including ground strokes, service, lob and volley.

KINE 140B Intermediate Tennis: Techniques and Analysis (1, 1.5, 2, 2.5)
(Formerly KINE 141)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Intermediate tennis for competitive play includes covering court etiquette, motorskill development and the introduction of intermediate singles and doubles strategic through competition.

KINE 140C Advanced Tennis: Techniques and Analysis (1-2)
(Formerly KINE 142)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced tennis instruction for the highly skilled competitive player. Principles on stroke development, court positioning, serving systems and game strategies associated with singles, competition, doubles competition. Tournament play will be emphasized.

KINE 150A Beginning Weight Training (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
This course is for the beginner level and is designed to emphasize a Total Body Toning Program. Focusing on muscle endurance, strength, flexilility, cardiovascular efficiency, and body composition through weight resistance exercises and conditioning programs.

KINE 150B Intermediate Weight Training- Strength Training for Total Fitness (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
This course is designed for the experienced level student and focuses on the principles of Cross Training for muscular strength development: explores the science and benefits of developing skeletal-muscular and cardiovascular-aerobic fitness via intense exercise with resistive weights equipment.

KINE 150C Advanced Weight Training- Power Lifting and Plyometrics Training (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
This course is designed for the advanced level student and will provide the opportunity, understanding, and appreciation of Power Lift Training through a system of heavy resistance (and low repetition) exercises and Plyometic training that build power in large muscle groups.

KINE 155A Beginning Volleyball: Techniques and Analysis (1-2)
(Formerly KINE 155)
½, 1, or 1½, hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Focus on basic skills and fundamentals for individual beginning volleyball students. Includes the development of passing, setting, hitting, serving, conditioning and safety. Emphasis on knowledge of rules and principles of the sport of volleyball.

KINE 155B Intermediate Volleyball: Techniques and Analysis (1, 1.5, 2, 2.5)
(Formerly KINE 156)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Development of volleyball skills for the experienced participant. Emphasis on the execution of individual and team offensive and defensive strategies and communication systems.

KINE 155C Advanced Volleyball: Techniques and Analysis (1, 1.5, 2)
(Formerly KINE 157)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced skill work, individual techniques, conditioning and competitive offensive and defensive strategies for the high skilled player.

KINE 165A Beginning Softball (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Basic skills and fundamentals for the beginning student including but not limited to the development of hitting, fielding, base running, nutrition, conditioning and safety. Knowledge of rules of fast pitch softball to build a foundation.

KINE 165B Intermediate Softball (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Continued development of fast pitch softball skills at an intermediate level. Activities include the execution of team and individual offensive and defensive situations. Verbal and visual communication systems will be introduced.

KINE 165C Advanced Softball (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Assess and execute offensive and defensive strategies in competition. Advanced fundamentals and techniques for the highly skilled and competitive student.

KINE 166A Beginning Basketball (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Basketball principles, rules, safety, individual techniques, and skill sets. Basic offensive and defensive patterns will be introduced.

KINE 166B Intermediate Basketball (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Basketball techniques, biomechanics, offensive and defensive patterns for the experienced player.

KINE 166C Advanced Basketball (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced Basketball techniques including individual skills and team principles. Sophisticated team play, defensive sets and offensive patterns for the highly skilled participant.

KINE 168A Beginning Soccer (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Focus on the basic skills and individual fundamentals for the beginning soccer student. Includes the development of ball handling, passing, receiving, heading, goalkeeping, defending, conditioning and safety. Emphasis on knowledge of rules and principles of the sport of soccer.

KINE 168B Intermediate Soccer (1, 1.5, 2))
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Development of soccer skills for the experienced participant. Emphasis on the execution of individual and team offensive and defensive strategies and communication systems.

KINE 168C Advanced Soccer (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Advanced skill work, individual techniques, conditioning and competitive offensive and defensive strategies for the highly skilled player.

KINE 170A Team Sports - Baseball Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction in team strategies in the sport of Baseball for the experienced competitor. Instruction includes individual and team principles, tactics, and communication systems as they apply to offensive and defensive strategy.

KINE 170B Team Sports- Baseball Biomechanics (1, 1.5, 2))
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical applications and participation for the experienced competitor, including individual and team skills and techniques as they apply to offense and defense in the sport of Baseball.

KINE 170C Team Sports- Basketball Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Theory, philosophy and strategies for the highly skilled competitor in the sport of basketball.

KINE 170D Team Sports- Basketball Biomechanics (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Progressive application of biomechanical movement to position skills through participation in team sports for basketball.

KINE 170E Team Sports- Football Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction in individual and team theory, philosophy, and strategies in the sport of Football.

KINE 170F Team Sports- Football Biomechanics (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Progressive application of biomechanical movement to position skills through participation in team sports for football.

KINE 170G Team Sports- Soccer Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction in theory, philosophy and strategies in the sport of Soccer for the experienced competitor.

KINE 170H Team Sports- Soccer Biomechanics (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Focus on individual soccer skills, strength training, conditioning and biomechanical application of techniques for the highly skilled competitor. Emphasis on offensive and defensive skills in a team setting.

KINE 170I Team Sports- Softball Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction in theory, philosophy and strategies in the sport of Softball for the highly-skilled competitor.

KINE 170J Team Sports- Softball Biomechanics (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Progressive application of biomechanical movement to position skills through participation in team sports for softball.

KINE 170K Team Sports- Volleyball Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction in theory, philosophy and strategies in volleyball for competition. Principles are applied through practice and drills and fitness components.

KINE 170L Team Sports- Volleyball Biomechanics (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical applications of skills and techniques through drills and participation in team sports for the advanced Volleyball player.

KINE 170O Team Sports- Wrestling Strategies (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Instruction in theory, philosophy, competition strategies and fitness concepts in the sport of Wrestling for the experienced competitor.

KINE 170P Team Sports- Wrestling Biomechanics (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical movement patterns specific to skills and techniques in wrestling. Training modes and conditioning parameters necessary for competition will be emphasized.

KINE 175A Psychology of Specific Athletic Competition – Contact (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

KINE 175B Psychology of Specific Athletic Competition – Minimal Contact (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

KINE 175C Psychology of Specific Athletic Competition – Non-Contact (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

KINE 175D Psychology of Specific Athletic Competition – Skilled (2)
2 hours lecture
Transfer acceptability: *CSU*
Psychological, mental, and physical preparation for the competitive athlete.

KINE 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.

KINE 180 Adaptive Outdoor Activities (1)
3 hours laboratory
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.

KINE 181 Adaptive Aquatics (1)
3 hours laboratory
Transfer acceptability: *CSU; UC*
Basic swimming, survival strokes, and water orientation adapted to individual student's disability.

KINE 182 Adaptive Weight Training (1)
3 hours laboratory
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.

KINE 183 Adaptive Skiing (1, 1.5)
3 or 4½ hours laboratory
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.

KINE 184 Adaptive Body Conditioning (1)
3 hours laboratory
Transfer acceptability: *CSU; UC*
Training to increase endurance, flexibility, and strength. Emphasis on individual fitness profile.

KINE 190 Theory of Softball (2)
2 hours lecture
Transfer acceptability: *CSU; UC*
Fastpitch softball rules, playing techniques, coaching strategies, and practice organization.

KINE 197 Topics in Physical Education and Kinesiology (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Physical Education and Kinesiology. See Class Schedule for specific topic offered. Course title will designate subject covered.

KINE 204A Off Season Sports Conditioning I - Aerobic/ Anaerobic Development (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Note: *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. Varied forms of aerobic and anaerobic strength training will be utilized in an effort to enhance sport specific strength, speed, and endurance conditioning.

KINE 204B Off Season Conditioning II- Motor Skill Development and Application (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC*
An intensified out of season skill develpment program for men and women in intercollegiate sports. Selected skill and agility exercise will be practiced to enhance quickness, coordination, balance, reaction time and overall motor skill training techniques.

KINE 205A In Season Sports Conditioning I - Aerobic and Anaerobic (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Note: *May be open entry/open exit*
Transfer acceptability: *CSU; UC*
Aerobic and Anaerobic maintenance training program for men and women in intercollegiate sports during season. Sports specific program will consist of cardiovascular, muscular strength and endurance training modes and their application to competition.

KINE 205B In Season Conditioning II- Fine Motor Skills Maintenance (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
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, eye hand and foot speed/endurance work, and motor skill efficiency will be enhanced through use of different in season conditioning parameters.

KINE 206 Coaching of Women's Team Sports (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2, or 3 hours laboratory
Transfer acceptability: *CSU; UC – KINE 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.

KINE 210 Professional Prep for Football - Theory and Mental Preparation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Emphasis on rules, individual and team strategies, mental preparation for competition, weekly practice, philosophies, coaching theories and current trends for the sport of Football.

KINE 210L Professional Prep for Football Lab - Biomechanic Application (1, 1.5)
3 or 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical application of fundamental skills with emphasis on strategy, skill development, preparation for competition, weekly practice schedules, and trends for the sport of Football.

KINE 211 Professional Prep. for Basketball - Theory and Mental Preparation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Emphasis on history, rules, individual and team strategies, mental preparation for competition. Practice planning, coaching theories and philosophies and trends in the sport of Basketball.

KINE 211L Professional Preparation for Basketball Lab (1, 1.5)
3 or 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical applications of individual and team Basketball skills, techniques and strategies.

KINE 212 Professional Prep for Baseball - Theory and Mental Preparation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Emphasis on history, rules, individual and team strategies, mental preparation for competition. Practice planning, coaching theories and philosophies and trends in the sport of Baseball.

KINE 212L Professional Prep for Baseball Lab - Biomechanic Application (1, 1.5)
3 or 4½ hours laboratory
Transfer acceptability: *CSU; UC*
This course will focus on the biomechanical application of individual and team Baseball skills, techniques and strategy. Specific drills, communication systems for respective positions and the development of bunting, hitting, pitching and baserunning mechanics will be emphasized.

KINE 214 Professional Preparation for Water Polo - Theory and Biomechanic Application (1, 1.5, 2)
½, 1, or 1½ hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC – KINE 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.

KINE 215 Professional Prep for Wrestling - Theory and Mental Preparation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Individual and team strategies, coaching theories and philosophies for wrestling. Emphasis on history, rules, trends and physical and mental preparation for competition.

KINE 215L Professional Prep Wrestling Lab - Biomechanic Application (1, 1.5)
3 or 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical application of wrestling styles, individual strategy and skill development for competition. Emphasis on pre-match preparation including goal setting and drill progressions.

KINE 216 Professional Prep for Golf - Theory and Mental Preparation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Emphasis on history, rules, individual and team strategies, mental preparation for competition, weekly practice planning, coaching theories, philosophies and trends for the sport of Golf.

KINE 216L Professional Prep for Golf Lab - Biomechanic Application (1, 1.5)
3 or 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Biomechanical application of fundamental skills with emphasis on technique, competition strategy, trends, preparation for competition and weekly practice schedules for the sport of Golf.

KINE 217 Professional Prep Tennis - Theory and Mental Preparation (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
History, rules, strategies, and mental preparation for competition. Emphasis on weekly practice planning, coaching theories, philosophies and trends.

KINE 217L Professional Prep Tennis Lab - Biomechanic Application (1, 1.5)
3 or 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Focus on the biomechanical application of Tennis skills and techniques. Emphasis on practice drills for doubles and singles competition including ground strokes and short court strokes.

KINE 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.

KINE 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.

KINE 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.

See Catalog addendum at http://www.palomar.edu/catalog

KINE 232 Teaching Swimming (1, 1.5, 2)
½, 1, or 1½, hours lecture - 1½, 2 or 3 hours laboratory
Transfer acceptability: *CSU; UC*
Techniques for teaching swimming. Practical experience teaching beginning and intermediate swimming classes under supervision of college instructor.

KINE 295 Directed Study in Physical Education and Kinesiology (1, 2, 3)
3, 6, or 9 hours 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 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.

Legal Studies (LS)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: MD-341
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 110	Computer Skills for the Legal Profession	2
LS 121*	Introduction to Law	3
LS 145*	Legal Ethics	3
LS 240	Civil Liberties and Procedures	3
LS 261	Torts and Personal Injury	3
LS 290	Contemporary Legal Issues	3
POSC 101	Introduction to Politics and American Political Institutions	3
POSC 102	Introduction to United States 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 170	Alternative Dispute Resolution	3
LS 295	Directed Study in Legal Studies	1 - 3
PHIL 200	Critical Thinking	3
POSC 110	Introduction to World Politics	3
TOTAL UNITS		**32**

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 110	Computer Skills for the Legal Profession	2
LS 121	Introduction to Law	3
LS 145	Legal Ethics	3
BUS 125	Business English	3
BUS 165	Beginning Keyboard	2
or		
Demonstrate the ability to type 35 word per minute		
TOTAL UNITS		**14 - 16**

Recommended Electives: BUS 173

COURSE OFFERINGS

LS 105 Legal 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)
1 hour lecture - 3 hours laboratory
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
Transfer acceptability: *CSU; UC - BUS 115, 116, 117, LS 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 170 Alternative Dispute Resolution (3)
3 hours lecture
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 240 Civil Liberties and Procedures (3)
3 hours lecture
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 261 Torts and Personal Injury (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS 121*
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.

LS 290 Contemporary Legal Issues (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in LS 105*
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 and Information Technology Department for further information.
(760) 744-1150, ext. 2666
Office: LL-213B

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Library and Information Technology

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Library and Information Technology

PROGRAM OF STUDY

Library and Information Technology

Provides training for students desiring employment as library technical assistants and retraining for those reentering the labor market.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
LT 100	Introduction to Libraries/Information Services	3
LT 110	Library Operational Skills/Technical Services	3
LT 115	Library Operational Skills/Public Services	3
LT 120	Information Sources and Services/Reference	3
LT 125	Developing Information Literacy Skills	1
LT 130	Library Media and Technology	3
LT 140	Library Services for Children and Young Adults	3
CSIT 105	Computer Concepts and Applications	
	or	
CSIT 120	Computer Applications	3
ENG 100	English Composition	4
	or	
BUS 125	Business English	3
TOTAL UNITS		**25 – 26**

COURSE OFFERINGS

LT 100 Introduction to Libraries and Information Services (3)
3 hours lecture
Transfer acceptability: *CSU*
Covers the role of Library/Media Technicians (LMTs) in meeting information needs of diverse populations and communities served by the four major types of libraries. The history of libraries, principles of customer service and ethical issues faced by library workers are examined. Duties of LMTs in the areas of Access Services, Collection Services, Information Services, and Technical Services are reviewed in depth. Additional topics include: library funding; job searches, relationship with Librarians, library automation, digital services and continuing education.

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.

See Catalog addendum at http://www.palomar.edu/catalog

LT 125 Developing Information Literacy Skills (1)
1 hour lecture
Transfer acceptability: *CSU*
Develops the information skills students need to succeed at the college level: uncover information not readily identified by search engines; determine if the information found is credible and appropriate for college level course work; and cite sources appropriately in order to support ideas and avoid plagiarism. Students will be encouraged to research topics currently being studied in other college courses.

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 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.
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 Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Mathematics

Associate in Science for Transfer -
AS-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Mathematics

Any student wishing to earn an A.S. 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, 135 and 140 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.

PROGRAMS OF STUDY

Mathematics

The Associate in Science in Mathematics for Transfer provides students the opportunity to meet lower division transfer requirements for a major in Mathematics. It provides the foundation for studying Physics, Engineering, the Physical, Biological and Health Sciences, Economics, Business, Computer Science, Statistics, and many others.

ASSOCIATE IN SCIENCE FOR TRANSFER MAJOR

Program Requirements	
Courses may be double-counted between the GE course work and the major.	
California State University General Education (CSUGE) pattern	39
OR	
Intersegmental General Education Transfer Curriculum (IGETC-CSU)	37
Major Requirements	19-22
Transferable Electives (dependent upon GE pattern and double-counting)	7 - 11
TOTAL PROGRAM UNITS	**60**

Program Requirements		
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
List A (Choose 1 course)		
MATH 200	Introduction to Linear Algebra	3
MATH 206	Calculus with Differential Equations	4
List B (Choose 1 course not previously taken)		
MATH 120	Elementary Statistics	4
MATH 200	Introduction to Linear Algebra	3
MATH 206	Calculus with Differential Equations	4
MATH 245	Discrete Mathematics	3
PHYS 230	Principles of Physics	5
TOTAL UNITS		**19 - 22**

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.S. 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 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*
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*
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*
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*
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 47A Mathematics Topics (.5 - 4)
(Formerly MATH 47)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Non-degree Applicable
Topics in Mathematics. See class schedule for specific topic covered. Course title will designate subject covered.

MATH 47B Mathematics Topics (.5 - 4)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *A minimum grade of 'C' in MATH 15, or eligibility determined through the math placement process.*
Topics in Mathematics. See class schedule for specific topic covered. Course title will designate subject covered.

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 52A Explorations in Algebra (4)
4 hours lecture
Prerequisite: *MATH 15, or eligibility determined through the math placement process*
Supplemental active learning instruction for students enrolled in an intensive version of beginning and intermediate algebra. Collecting, analyzing and mathematically modeling experimental data using polynomial, exponential, and logarithmic functions. Designed to support and strengthen student understanding of beginning and intermediate algebra concepts.

MATH 53 Prealgebra/Beginning Algebra (6)
6 hours lecture
Prerequisite: *MATH 15, or eligibility determined through the math placement process.*
Elementary algebra with a review of selected topics from prealgebra. Emphasizes mathematical reasoning, problem-solving, and real-world applications using numeric, algebraic, and graphic models. Topics include number sense, percents, ratio and proportion, basic geometric concepts, problem-solving techniques, algebraic expressions, polynomials, linear equations, linear inequalities, linear and nonlinear graphs, systems of linear equations in two variables, integer exponents, and radicals.

MATH 54 Algebra for Statistics (6)
6 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 15, or eligibility determined through the math placement process.*
The core algebra skills needed to understand the concepts, formulas, and graphs used in transfer-level statistics are investigated. Integrates numeracy, proportional reasoning, algebraic reasoning, and functions. Develops conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. Throughout the course, college success content will be integrated with mathematical topics. This course is NOT intended for math, science, computer science, business, or engineering majors.

MATH 55 Geometry (4)
4 hours lecture
Prerequisite: *A minimum grade of 'C' in either MATH 50, MATH 50B, or MATH 53 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: *A minimum grade of 'C' in MATH 50 or MATH 50B, or MATH 53 or 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, MATH 50B, or MATH 53 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 63 Intermediate Algebra with Geometry (8)
8 hours lecture
Prerequisite: *MATH 50, MATH 50B, or MATH 53, or eligibility determined through the math placement process.*
Note: *Not open to students with prior credit in MATH 56 or 60*
Covers intermediate algebra. Also covers geometric topics including similarity, right triangle trigonometry, and coordinate geometry. Emphasis is placed on understanding concepts rather than rote memorization of formulas.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *A minimum grade of 'C' in either MATH 50, MATH 50B, or MATH 53 or eligibility determined through the Math Placement process*
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 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.*
C-ID MATH 151
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 (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 120, and PSYC/SOC 205, combined: maximum credit, one course*
The use of probability techniques, hypothesis testing and predictive techniques to facilitate decision-making. Topics include descriptive statistics, probability and sampling distributions, statistical inference, correlation and linear regression, analysis of variance, chi-square and t-tests, and application of technology for statistical analysis, including interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social sciences, psychology, life science, health science and education.

MATH 130 Calculus for Business and 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*
C-ID MATH 140
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, one course.*
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*
C-ID MATH 211
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*
C-ID MATH 221
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 and/or 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*
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*
C-ID MATH 250
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*
C-ID MATH 230
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*
C-ID MATH 240
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*
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

See Business (BUS)
Medical Assisting Clinical not offered at Palomar College

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 - 3 hours 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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; or ZOO 203*
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: MD-354

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.

See Catalog addendum at http://www.palomar.edu/catalog

MCS 115 Graphics and Media: A Multicultural Perspective (3)
3 hours lecture
Note: *Cross listed as GC 115*
Transfer acceptability: *CSU; UC*
An introduction to the impact of media technology on the visual arts from a multicultural perspective. Includes print, Internet, multimedia, and game design. Embraces the diversity and multicultural perspectives that reflect American demographics by presenting individual and collaborative contributions as well as strategies for designing niche marketing and advertising graphics for a multicultural society. Addresses the impact of globalization. Examines gender, ethnicity (African American, American Indian, Asian-Americans and/or Pacific Islanders, and Mexican American in particular), age, sexual orientation, and universal access for people with impairments.

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 125 Women, Culture, and Islam (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
This course examines the history of women in Islamic societies from the advent of Islam in the 1st AH/7th CE to present day. Drawing on a variety of primary and secondary sources in written texts and from the Internet, this course explores the role of women in Islam as a religion, cultural experience, and tradition, along with the wide range of women's experiences throughout different periods of history and in diverse Muslim societies.

MCS 157 Theatre and Social Justice (3)
3 hours lecture
Note: *Cross listed as TA 157*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
C-ID SOCI 150
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: PAC-122

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
• Basic Music Skills

PROGRAMS OF STUDY

Basic Music Skills

The primary purpose of this certificate is to provide basic music skills and music fluency. The knowledge gained may be particularly valuable to pre-school or elementary school teachers, music therapists, recreational therapists, multimedia specialists, video game designers, or other creative artists who use music to complement their primary art form.

CERTIFICATE OF PROFICIENCY

Program Requirements

MUS 100	Music Appreciation	3
MUS 103	Fundamentals of Music	3
MUS 115	Basic Keyboard I	.5
MUS 117	Basic Keyboard II	.5
MUS 130	Fundamental Vocal Skills	.5
MUS 175	Beginning Guitar	.5
MUS 180	Computer Music I	3

Electives (Select a minimum of 4.5 units)

MUS 101	Survey of 20th Century Music	3
MUS 102	Introduction to Jazz	3
MUS 131	Vocal Literature and Performance	.5
MUS 134	Palomar Women's Chorus	1
MUS 138/ DNCE 138	Cuban and Brazilian Drumming II	.5 - 1
MUS 143	Palomar Chorale Chamber Ensemble	.5 - 1
MUS 147	Concert Choir	1
MUS 148	Palomar Chorale	1
MUS 149	Spectrum Pop/Jazz Singers	1
MUS 150	Musical Theatre - Vocal	.5 - 1
MUS 151	Concert Band	1
MUS 152	Jazz Ensemble	1
MUS 155	Chamber Ensemble - Brass	1
MUS 157	Guitar Ensembles	1
MUS 158	Chamber Singers	.5 - 1
MUS 161	Summer Concert Band	.5
MUS 162	Summer Stage Band	.5
MUS 171	World Music	3
MUS 172	Repertory Jazz Ensemble	1
MUS 176	Intermediate Guitar	.5
MUS 179	Beginning Flamenco Guitar	.5
MUS 184	Electronic Ensemble	1
MUS 187	Computer Music Composition	1
MUS 198	Palomar Symphony Orchestra	.5 - 1
MUS 224	Introduction to Jazz Piano	.5
TOTAL UNITS		**15.5**

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 (Select five courses)		Units
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	1
TOTAL UNITS		**13 - 15**

Digital Animation, Compositing, and Music Certificate of Proficiency is also listed in Art and in Graphic Communications - Multimedia and Web.

Music

The Music Associate in Arts Degree prepares students for transfer to a California State University, University of California, private university or conservatory that offers a Bachelor of Music Degree or Bachelor of Arts Degree in Music.

A.A. DEGREE MAJOR

Program Requirements		
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	1 3
MUS 210	Advanced Harmony	3
MUS 211	Counterpoint	3
MUS 215	Music Skills III	1
MUS 216	Music Skills IV	1
Piano Proficiency (Select a minimum of .5 - 2.5 units)		
MUS 115	Basic Keyboard I	.5
MUS 116	Accelerated Basic Keyboard	1
MUS 117	Basic Keyboard II	.5
MUS 119	Piano Skills I	.5
MUS 224	Introduction to Jazz Piano	.5
MUS 225	Piano Skills II	.5
Performance Course List (See Emphasis for minimum unit requirements)		
MUS 130	Fundamental Vocal Skills	.5
MUS 131	Vocal Literature and Performance	.5
MUS 134	Palomar Women's Chorus	1
MUS/DNCE 137	Cuban and Brazilian Drumming I	.5 - 1
MUS/DNCE 138	Cuban and Brazilian Drumming II	.5 - 1
MUS 143	Palomar Chorale Chamber Ensemble	.5 - 1
MUS 147	Concert Choir	1
MUS 148	Palomar Chorale	1
MUS 149	Spectrum Pop/Jazz Singers	1
MUS 150	Musical Theatre - Vocal	.5 - 1
MUS 151	Concert Band	1
MUS 152	Jazz Ensemble	1
MUS 155	Chamber Ensemble - Brass	1
MUS 157	Guitar Ensembles	1
MUS 158	Chamber Singers	.5 - 1
MUS 159	Musical Theatre Orchestra	.5 - 1
MUS 161	Summer Concert Band	.5
MUS 162	Summer Stage Band	.5
MUS 172	Repertory Jazz Ensemble	1
MUS/DNCE/ TA 173	Musical Theatre Scenes	1
MUS 175	Beginning Guitar	.5
MUS 176	Intermediate Guitar	.5
MUS 178	Classical Guitar	1
MUS 179	Beginning Flamenco Guitar	.5
MUS 184	Electronic Ensemble	1
MUS 198	Palomar Symphony Orchestra	.5 - 1
MUS 223	Premier Chamber Ensembles	1
MUS 227	Accompanying Ensemble	1
MUS 250	Choral Conducting	1
MUS 251	Master Class in Keyboard Literature, Analysis and Performance	.5 - 3
Emphasis in Performance (Students must complete four semesters of MUS 220 and 222, plus a minimum of 4 units from the Performance Course List.)		
MUS 220	Applied Music	1
MUS 222	Performance Studies	.5
Emphasis in Composition and Theory (Students must take MUS 184 for three semesters, and MUS 220 and 222 for two semesters, plus a minimum of 2 units from the Performance Course List.)		
MUS 181	Computer Music II	3
MUS 184	Electronic Ensemble	1
MUS 187	Computer Music Composition	1
MUS 220	Applied Music	1
MUS 222	Performance Studies	.5
Emphasis in General Music (Select 6 units, plus a minimum of 4 units from the Performance Course List.)		
MUS 101	Survey of 20th Century Music	3
MUS 102	Introduction to Jazz	3
MUS /ENTT/ TA 112	Basic Sound Reinforcement	3
MUS /ENTT/ TA 114	Advanced Sound Reinforcement	1.5 - 2
MUS 130	Fundamental Vocal Skills	.5
MUS 131	Vocal Literature and Performance	.5
MUS 171	World Music	3
MUS 175	Beginning Guitar	.5
MUS 176	Intermediate Guitar	.5
MUS 181	Computer Music II	3
MUS 184	Electronic Ensemble	3
MUS 187	Computer Music Composition	1
TOTAL UNITS		**32.5 – 35**

Recommended Elective: DNCE/MUS/TA 173

COURSE OFFERINGS

State Regulations (Title 5, Sections 55040-55041) limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Music have limitations on the number of times a student may enroll. Some Music courses may be repeated provided student has not reached the limitation for the applicable group of Music courses. Specific information about enrollment limitations for Music classes is available at http://www.palomar.edu/schedule/restrictions.htm

Courses numbered under 100 are not intended for transfer credit.

MUS 90 Fundamental Preparation for Music Majors (2)
1½ hours lecture - 1½ hours laboratory
Designed as the entry-level music fundamentals class for music majors, including basic music terminology, rhythm and pitch notation, clefs, scales, intervals and triads. Keyboard and aural skills will also be introduced, along with a concise outline of the major style periods of music history. The ability to read music is strongly recommended and desirable. Provides essential background for advanced courses in music theory.

MUS 96A Special Projects: Performance (1)
3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition*
Participation in group or solo performances beyond those normally expected in individual study classes.

MUS 96B Special Projects: Research (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 105*
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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.

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.

MUS 112 Basic Sound Reinforcement (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as ENTT/TA 112*
Transfer acceptability: *CSU*
An introduction to basic sound equipment and reinforcement principles. To understand basic set up, operation, and troubleshooting of live Public Address systems in a concert or theatrical setting.

MUS 114 Advanced Sound Reinforcement (1.5 - 2)
4½ - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT/MUS 112*
Note: *Cross listed as ENTT/TA 114*
Transfer acceptability: *CSU*
Advanced principles of electronic sound, acoustics, equalization and effects processing, recording of live sound in a concert or theatrical setting, equipment management and design techniques.

MUS 115 Basic Keyboard I (.5)
2 hours laboratory
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 (1)
3 hours laboratory
Prerequisite: *Ability to read music in treble and bass clefs*
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 (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 115 or the passing of equivalency test*
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 (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 117 or the passing of equivalency test*
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 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 (.5)
2 hours laboratory
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 (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 130*
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 134 Palomar Women's Chorus (1)
3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition*
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 (.5 - 1)
1½, 2, or 3 hours laboratory
Note: *Cross listed as DNCE 137*
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, popular and folkloric; Rumba, Congo (Makuta/Palo), Franco/Haitian (Gaga/Congo Layet) from East and West Cuba. Develop ability to work as a drum ensemble.

MUS 138 Cuban and Brazilian Drumming II (.5 - 1)
1½, 2, or 3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition*
Note: *Cross listed as 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
Limitation on enrollment: *Enrollment subject to audition with emphasis on vocal ability and music reading*
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*
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
Limitation on enrollment: *Enrollment subject to audition*
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
Limitation on enrollment: *Enrollment subject to audition*
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
Limitation on enrollment: *Enrollment subject to audition*
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*
Transfer acceptability: *CSU; UC*
Study, rehearsal, and performance of standard concert band music.

MUS 152 Jazz Ensemble (1)
3 hours laboratory
Limitation on enrollment: *Ability to perform on one or more instruments and read music. Enrollment subject to audition*
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*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of chamber music literature for brass.

MUS 157 Guitar Ensembles (1)
3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition with emphasis on music reading*
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
Limitation on enrollment: *Enrollment subject to audition with emphasis on vocal ability and music reading*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of chamber music for voices.

MUS 159 Musical Theatre Orchestra (.5,1)
1½ or 3 hours laboratory
Limitation on enrollment: *Enrollment subject to audition; ability to play an instrument and read music at sight*
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*
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*
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.

See Catalog addendum at http://www.palomar.edu/catalog

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
Limitation on enrollment: *Enrollment subject to audition*
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 (.5)
2 hours laboratory
Transfer acceptability: *CSU; UC*
An introduction to the fingerboard through the study of notation, basic hand positions, and chord formations.

MUS 176 Intermediate Guitar (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 175*
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 (1)
3 hours laboratory
Recommended Preparation: *A minimum grade of 'C' in MUS 175 or approval of instructor*
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 (.5)
2 hours laboratory
Prerequisite: *Basic knowledge of guitar performance technique*
Transfer acceptability: *CSU; UC*
Basic knowledge of flamenco guitar that focuses on terminology, harmony, rhythm, and additional techniques.

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/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 (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 103*
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. Assignments and performances will be both individual and collaborative. Group, or ensemble, compositions and performances are part of this course.

MUS 187 Computer Music Composition (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 103 or MUS 115, and MUS 180 and MUS 181*
Transfer acceptability: *CSU*
Focus is on individual music compositions. Instruction will include, but is not limited to, computer music software and hardware overviews. Includes 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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
Limitation on enrollment: *Enrollment subject to audition*
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.

MUS 216 Music Skills IV (1)
1 hour lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 215*
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 (1)
3 hours laboratory
Corequisite: *MUS 222 and at least one music ensemble (MUS 134, 147, 148, 149, 150, 151, 152, 155, 157, 158, 159, 172, 184, 198)*
Limitation on Enrollment: *Enrollment subject to audition*
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*
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
Limitation on enrollment: *Enrollment subject to audition*
Transfer acceptability: *CSU; UC*
Chamber music ensembles for advanced performers. Enrollment subject to audition.

MUS 224 Introduction to Jazz Piano (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 117 or the passing of equivalency test*
Transfer acceptability: *CSU; UC*
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 (.5)
2 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 119 or the passing of equivalency test*
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*
Transfer acceptability: *CSU*
Techniques of, and practical experience in, piano accompaniment for ensembles, vocalists, and instrumentalists.

MUS 250 Choral Conducting (1)
1 hour lecture
Prerequisite: *A minimum grade of 'C' in MUS 105 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)
½, 1, 1½, 2, or 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in MUS 225 or the passing of equivalency test*
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 number of laboratory hours may be scheduled by the department. Refer to Class Schedule.
Prerequisite *Enrollment subject to project approval.*
Transfer acceptability: *CSU; UC - 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 CSIT - Networking

Nursing Education (NURS)

Contact the Nursing Education Department for additional information.
(760) 744-1150, ext. 2279
Office: HS-200
For transfer information, consult a Palomar College Counselor.

Associate in Arts (AA) Degree:
AA Degree requirements are listed in Section 6 (green pages).
• Nursing

Associate in Science (AS) Degree:
•Nursing

The Associate Degree Nursing program is accredited by both the California Board of Registered Nursing and the Accreditation Commission for Education in Nursing (ACEN), Peachtree Rd. NE, Suite 850 Atlanta, GA 30326, 1-404-975-5000.

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 difference in the coursework between the two options is in the GE requirements, which are described in more detail in the programs of study on the following pages. The Associate in Arts (AA) in Nursing Degree meets the requirements of Title V and the Board of Registered Nursing (BRN). The Associate in Science (AS) in Nursing Degree meets the requirements of Title V, Board of Registered Nursing (BRN), and the Accreditation Commission for Education in Nursing (ACEN).

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), version V, with a composite score of at least 62%; and (6) submit a completed application along with the required documentation.

LICENSURE: Upon successful completion of either the Associate in Arts (AA) in Nursing Degree or the Associate in 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 in Arts (AA) or the Associate in 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. For information contact the Nursing Education Department (760) 744-1150, ext. 2580.

PROGRAMS OF STUDY

Associate in Arts (AA) in Nursing

Requirements for an AA in Nursing

MATH Any course numbered 56 and above, except math topics, or an appropriate score on an approved math exam	0-4
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 approved GE Area C course	3
PSYC 100, 105, 110, 115, 120, 125, or 130	3
SOC 100, 105, 110, 125, 130, or 135	3
SPCH 100 or 105	3
One approved pair of American History & Institutions courses or an appropriate score on an approved American History & Institutions exam	0-6
The Multicultural Course requirement is met by completion of NURS 103 and NURS 217, or NURS 110 and NURS 217.	0
The following additional requirements for an Associate in Arts Degree in Nursing are met by completion of the Nursing Curriculum:	
Health and Fitness requirement	0
Lifelong Learning and Self-Development requirement	0
TOTAL UNITS	**73-77**

*Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an Associate in Arts Degree 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.
- 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 Any course numbered 56 and above, except math topics, or an appropriate score on an approved math exam	0-4
NURS 110 LVN-RN Transition	2
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 approved GE Area C course	3
PSYC 100, 105, 110, 115, 120, 125, or 130	3
SOC 100, 105, 110, 125, 130, or 135	3
SPCH 100 or 105	3
One approved pair of American History & Institutions courses or an appropriate score on an approved American History & Institutions exam	0-6
The Multicultural Course requirement is met by completion of NURS 103 and NURS 217, or NURS 110 and NURS 217.	0
The following additional requirements for an Associate in Arts Degree in Nursing are met by completion of the Nursing Curriculum:	
Health and Fitness requirement	0
Lifelong Learning and Self-Development requirement	0
TOTAL UNITS	**49-59**

*Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an Associate in Arts Degree 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 in Science (AS) in Nursing

Requirements for an AS in Nursing

MATH Any course numbered 56 and above, except math topics, or an appropriate score on an approved math exam	0-4
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 approved GE Area C course	3
PSYC 100, 105, 110, 115, 120, 125, or 130	3
SOC 100, 105, 110, 125, 130, or 135	3
SPCH 100 or 105 3	
The Multicultural Course requirement is met by completion of NURS 103 and NURS 217, or NURS 110 and NURS 217.	0
The following additional requirements for an Associate in Science Degree in Nursing are met by completion of the Nursing Curriculum:	
Health and Fitness requirement	0
Lifelong Learning and Self-Development requirement	0
TOTAL UNITS	**67-71**

*Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an Associate in Science Degree in Nursing, students must receive a grade of 'C' or better.

See Catalog addendum at http://www.palomar.edu/catalog

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.
- 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 Any course numbered 56 and above, except math topics, or an appropriate score on an approved math exam	0-4
NURS 110 LVN-RN Transition	2
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 approved GE Area C course	3
PSYC 100, 105, 110, 115, 120, 125, or 130	3
SOC 100, 105, 110, 125, 130, or 135	3
SPCH 100 or 105	3
The Multicultural Course requirement is met by completion of NURS 103 and NURS 217, or NURS 110 and NURS 217.	0
The following additional requirements for an Associate in Arts Degree in Nursing are met by completion of the Nursing Curriculum:	
Health and Fitness requirement	0
Lifelong Learning and Self-Development requirement	0
TOTAL UNITS	**49-53**

*Three semester unit courses accepted from accredited colleges.
Curriculum plan subject to change.
To get credit for any course applicable to an Associate in Science Degree 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

Upon successful completion of the following requirements, a Diploma RN can be awarded an Associate Degree (AA or AS) in Nursing from Palomar College.

- 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 submit an official transcript of the Diploma Nursing school coursework to the Nursing Education Department at Palomar College. The transcript will also be evaluated by the Palomar College Evaluation Department for GE course approvals.
- 38 of the 39 units required for the Nursing major at Palomar College may be awarded from the Diploma Nursing school.
- One unit in Nursing at Palomar College must be earned by completion of NURS 203, Nursing Foundation II.
- A Diploma Nurse must also meet all Associate Degree (AA or AS) General Education and/or District requirements including a minimum of 12 units which must be completed in residency at Palomar College.

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*
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: *A copy of a current, active California LVN license in good standing must be on file in the Nursing Education Office prior to registering in this class.*
Recommended preparation: *MATH 56 or 60*
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*
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*
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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 registering in this class.*
Corequisite: *NURS 118 or 217*
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*
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*
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*
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 (NUTR)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: P-8A
For transfer information, consult a Palomar College Counselor.

NUTR 100 Introduction to Nutrition and Food Professions (3)
3 hours lecture
Transfer acceptability: *CSU*
Overview of nutrition, food science, dietetics, and fitness professions and disciplines. Employment trends, career options, educational paths, ethical issues, and professional networking will be emphasized. Introduction to professional organizations and publications will be discussed.

NUTR 120 Food and Culture (3)
(Formerly FCS 150)
3 hours lecture
Transfer acceptability: *CSU*
Exploration of food as an expression of cultural diversity, and examination of how traditional foods reflect geographic area and culture. Regional, ethnic, cultural, religious, historical, and social influences on food patterns are examined. Influence of socio-economic class, beliefs, gender, and age on diet, health, and disease are also discussed.

NUTR 165 Fundamentals of Nutrition (3)
(Formerly FCS 165)
3 hours lecture
Note: *Cross listed as HE 165*
Transfer acceptability: *CSU; UC – NUTR 165, NUTR 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.

NUTR 170 Nutrition: Eating Disorders and Obesity (3)
(Formerly FCS 170)
3 hours lecture
Transfer acceptability: CSU
Review of etiology, incidence, socioeconomic 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.

NUTR 185 Science of Human Nutrition (3)
(Formerly FCS 185)
3 hours lecture
Recommended preparation: *CHEM 110 and ZOO 200 or ZOO 203*
Note: *Cross listed as BIOL 185*
Transfer acceptability: *CSU; UC – NUTR 165, NUTR 185, BIOL 185, HE 165 combined: maximum credit, one course*
Science of food, nutrients, and other substances. Processes by which humans ingest, digest, absorb, transport, utilize, and excrete foods and nutrients are explored. Emphasis on biological, chemical, and physiological implications to human nutrition and overall health. Current nutrition recommendations and controversies are analyzed from a scientific perspective.

NUTR 190 Scientific Principles of Food Preparation (4)
2½ hours lecture – 4½ hours laboratory
Recommended Preparation: *CHEM 110L and ENG 100*
Transfer acceptability: *CSU*
Application of food science principles. Emphasis is on ingredient function and interaction, food preparation techniques, sensory evaluation standards, food safety and sanitation, and nutrient composition of food.

NUTR 197 Topics in Nutrition (0.5 - 3)
½ -3 hours lecture - 1½-9 hours laboratory
Transfer acceptability: *CSU*
Topics in Nutrition. See Class Schedule for specific topics offered. Course title will designate subject covered.

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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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)

See Business (BUS)

Philosophy (PHIL)

Contact the Behavioral Sciences Department for further information.
(760) 744-1150, ext. 2330
Office: MD-261

COURSE OFFERINGS

PHIL 111 Introduction to Philosophy (3)
3 hours lecture
Recommended preparation: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
C-ID PHIL 100
Introduces philosophical ideas and methods concerning knowledge, reality and values. Expected topics will include the sources and limits of knowledge, and the nature of reality. Other topics that may be examined from a philosophical perspective include the nature of the self, truth, ethics, religion, science, language, beauty and art, political theory, or mind.

PHIL 113 Reasoning About Philosophical Issues (3)
(Formerly PHIL 102)
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 114 Asian Philosophies (3)
(Formerly PHIL 110)
3 hours lecture
Recommended preparation: *Eligibility for English 100 as determined through the English placement process.*
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 116 Introduction to Logic (3)
(Formerly PHIL 120)
3 hours lecture
C-ID PHIL 110
Transfer acceptability: *CSU; UC*
Introduces some principles of valid reasoning with emphasis on deductive logic. Must include a study of formal techniques of sentential logic. May also include a treatment of inductive reasoning, language, or fallacies.

PHIL 121 Introduction to Ethics (3)
3 hours lecture
Recommended preparation: *Eligibility for English 100*
Transfer acceptability: *CSU; UC*
C-ID PHIL 120
Examines the concept of morality and values, representative ethical theories, and may include their applications to moral problems.

PHIL 122 Social and Political Philosophy (3)
3 hours lecture
Recommended preparation: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Introduction to philosophy focusing on the central issues of society and politics, such as the nature and justification of political authority, citizenship, law, justice (distributive and retributive), power, the limits of government and individual liberty. These issues are examined through classic and contemporary texts in the history of political philosophy.

PHIL 125 Philosophy of Human Nature (3)
(Formerly PHIL 103)
3 hours lecture
Recommended preparation: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
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 126 Philosophy of Religion (3)
(Formerly PHIL 105)
3 hours lecture
Recommended preparation: *Eligibility for English 100 as determined through the English placement process.*
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.

PHIL 140 History of Ancient Philosophy (3)
(Formerly PHIL 135)
3 hours lecture
Recommended Preparation: *Eligibility for English 100 as determined through the English placement process.*
Transfer acceptability: *CSU; UC*
C-ID PHIL 130
Addresses ancient philosophy. Emphasis will be on the development of Greek philosophy from the Pre-Socratics through Aristotle. May also include Hellenistic, Roman, medieval or non-western thinkers.

PHIL 141 History of Modern Philosophy (3)
(Formerly PHIL 136)
3 hours lecture
Recommended Preparation: *Eligibility for English 100 as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID PHIL 140
Addresses 16th through 18th century philosophy. Emphasis will be on broad epistemological and/or metaphysical developments of empiricism and rationalism in philosophical thought from Descartes to Kant. May include approximate precursors and successors.

PHIL 142 Contemporary Philosophical Movements (3)
(Formerly PHIL 130)
3 hours lecture
Recommended preparation: *Eligibility for English 100 as determined through the English placement process.*
Transfer acceptability: *CSU; UC*
A critical examination of philosophical movements that have 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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Philosophy. See Class Schedule for specific topic covered. Course title will designate subject covered.

PHIL 200 Critical Thinking (3)
(Formerly PHIL 115)
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 201 Symbolic Logic (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in MATH 56 or MATH 60 or eligibility for MATH 100 as determined through the Math placement process.*
Transfer acceptability: *CSU; UC*
C-ID PHIL 210
Introduces the principles of valid deductive reasoning through the study of formal techniques of sentential logic and predicate logic.

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*
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 Media Studies Department for further information.
(760) 744-1150, ext. 2440
Office: P-31
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Digital Imaging

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• 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).
• Alternative Process Photography
• Fine Art Traditional Photography

PROGRAMS OF STUDY

Alternative Process Photography

This certificate is designed to provide an avenue for those students interested in pursuing a career as a photographer. The course work will address a range of technical issues, personal expression, aesthetics, criticism, portfolio development and history.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
PHOT 100	Elementary Film and Darkroom Photography	3
	or	
PHOT 124	Introduction to Film and Darkroom for Digital Photographers	3
PHOT 213	Carbon Printing	3
PHOT 214	Photogravure	3
PHOT 215	Creative Photography	3
PHOT 216	Alternative Photographic Processes	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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 122	Painter I	3
GCIP 140	Digital Imaging/Photoshop I	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 240	Digital Imaging/Photoshop III	3
GCMW 120	Designing for the Social Web	3
GCMW 203	Web Multimedia	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
PHOT 100	Elementary Film and Darkroom Photography	3
PHOT 130	Digital Darkroom I	3
TOTAL UNITS		**30**

Digital Imaging A.S. Degree Major or Certificate of Achievement is also listed under Graphic Communications - Imaging and Publishing.

Fine Art Traditional 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, and history. See course description for specific topics and prerequisites.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
PHOT 100	Elementary Film and Darkroom Photography	3
	or	
PHOT 124	Introduction to Film and Darkroom for Digital Photographers	3
PHOT 105	Intermediate Black and White Photography	3
PHOT 210	Advanced Black and White Photography	3
Eletives (Select 2 courses)		
PHOT 170	The Photography and Photographers of California	3
PHOT 212	Landscape Photography	3
PHOT 213	Carbon Printing	3
PHOT 214	Photogravure	3
PHOT 215	Creative Photography	3
PHOT 216	Alternative Photographic Processes	3
ART 104	Design and Composition	3
TOTAL UNITS		**15**

Photography

The Photography Program offers students the opportunity to study photography from beginning to advanced levels. Our courses prepare students in a variety of areas, including fine art, editorial, and commercial photography. The program stresses development of creativity while offering a firm grounding in basic skills. Our students will be prepared for positions in the job market or transfer to a 4 year college to continue their education. Students can earn an Associate in Arts Degree or a Certificate of Achievement in Photography.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
PHOT 120	Digital Photography	3
PHOT 100	Elementary Film and Darkroom Photography	3
	or	
PHOT 124	Introduction to Film and Darkroom for Digital Photographers	3
PHOT 125	History and Criticism of Photography	3
PHOT 130	Digital Darkroom I	3
PHOT/JOUR 140	Photojournalism	3
PHOT 160	Photography: Professional Practices	3
PHOT 209	Photographic Portfolio	3
PHOT 220	Commercial Photography	3
PHOT 225	Photographic Portraiture	3
Eletives (Select a minimum of 6 units)		
PHOT 105	Intermediate Black and White Photography	3
PHOT 135	Digital Darkroom II	3
PHOT 136	Digital Darkroom: Black and White	3
PHOT 145	Advanced Photojournalism	3
PHOT 170	The Photography and Photographers of California	3
PHOT 171	Landscape and Culture	3
PHOT 197A	Photography Topics: Field Studies	1 - 3
	or	
PHOT 197B	Photography Topics: Technical Studies	1 - 3
	or	
PHOT 197C	Photography Topics: General	1 - 3
PHOT 210	Advanced Black and White Photography	3
PHOT 212	Landscape Photography	3
PHOT 213	Carbon Printing	2
PHOT 214	Photogravure	3
PHOT 215	Creative Photography	3
PHOT 216	Alternative Photographic Processes	3
PHOT 296	Special Projects	1 - 3
TOTAL UNITS		**33**

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 Film and Darkroom Photography (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU; UC*
Introduction to the mechanics, optics, chemistry, lighting principles, and practices of elementary photography using film. 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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or PHOT 124*
Transfer acceptability: *CSU; UC*
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 120 Digital Photography (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Introduction to theory, mechanics, optics, lighting principles, and practices of photography using Digital Cameras. Explores the history, aesthetics, and the conceptualization of photographic imagery. Photographic seeing is stressed. Includes practices and procedures for image capture, asset management, software developing, printing, finishing and presentation and critique. Students are required to have an adjustable digital camera with manual exposure and RAW format capabilities.

PHOT 124 Introduction to Film and Darkroom for Digital Photographers (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 120*
Transfer acceptability: *CSU; UC (pending)*
Introduces digital photographers to analog film and darkroom methods. Includes film camera mechanics and operations, chemistry, film development, darkroom principles and practices of elementary black and white film photography. Contemporary and historical photographic imagery will be viewed and discussed. Encourages the development of personal artistic expression and visual perception through various photographic assignments. The aesthetics of photography and the conceptualization of photographic imagery will also be addressed. Many types of film cameras will be acceptable for this class. A film camera is required and your instructor will describe appropriate cameras the first day of class.

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.

PHOT 130 Digital Darkroom I (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 120*
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 135 Digital Darkroom II (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 130*
Transfer acceptability: *CSU*
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, and advancing visual literacy.

PHOT 136 Digital Darkroom: Black & White (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 130*
Transfer acceptability: *CSU*
Advanced concepts and techniques for "seeing" in black and white, and creating digital black and white photographs. Produce high-quality fine art prints.

PHOT 140 Photojournalism (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as JOUR 140*
Recommended Preparation: *PHOT 120*
Transfer acceptability: *CSU*
C-ID JOUR 160
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.

See Catalog addendum at http://www.palomar.edu/catalog

PHOT 145 Advanced Photojournalism (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT/JOUR 140*
Transfer acceptability: *CSU*
Designed to further develop those skills learned in PHOT 140. Provides advanced-level staffing for the college newspaper, magazine, and website. Emphasizes the use of multimedia productions, such as slide shows and DSLR video.

PHOT 160 Photography: Professional Practices (3)
3 hours lecture
Transfer acceptability: *CSU*
Prepares students for success in the photography world. Instruction and tactics on creating an operational plan, necessary paperwork, ethical issues, copywriting your photographs, working with clients and building the client base, pricing, invoicing, insurance and marketing. Appropriate for Commercial and Fine Art Photographers.

PHOT 170 The Photography and Photographers of California (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or PHOT 120*
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 171 Landscape and Culture (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 120*
Transfer acceptability: *CSU (pending)*
A photographic exploration of the interaction, influences and impact connecting humans, nature and the landscape.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Photography, General. See Class Schedule for specific topic offered. Course title will designate subject covered.

PHOT 209 Photographic Portfolio (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105 or PHOT 130*
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 (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or PHOT 120*
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 213 Carbon Printing (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or PHOT 124*
Transfer acceptability: *CSU*
An exploration of the 19th century carbon photographic process. Students make large negatives from which they produce high-quality hand-made carbon transfer prints.

PHOT 214 Photogravure (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 100 or PHOT 124*
Transfer acceptability: *CSU*
An introduction to the aesthetics and creation of photogravure intaglio-printed imagery. Historical and contemporary methods will be covered. Non-toxic methods will be stressed. Topics will include digital image preparation, polymer plates, safety, ink, paper, printing and press techniques, presentation, and critique.

PHOT 215 Creative Photography (3)
1½ hours lecture - 4½ hours 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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105, or concurrent enrollment 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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 130*
Transfer acceptability: *CSU*
Considerations of professional technical fundamentals in lighting, camera systems, digital workflow and management as applied in studio and location photography for commercial, advertising, and promotional purposes.

PHOT 225 Photographic Portraiture (3)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 130*
Transfer acceptability: *CSU*
Techniques and styles of photographic portraiture. Studio and non studio applications will be explored using black and white and color films or digital capture. Emphasis on lighting equipment and techniques.

PHOT 296 Special Projects (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHOT 105*
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

See Kinesiology

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**
C-ID PHYS 105; C-ID PHYS 100S for PHYS 120 and 121 combined
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**
C-ID PHYS 110; C-ID PHYS 100S for PHYS 120 and 121 combined
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*
Provides the applied mathematics and problem solving/presentation skills necessary for success in an introductory physics sequence for physics and engineering majors. Students will learn how to analytically solve physics problems and properly prepare laboratory reports. Reinforcement of math concepts will be emphasized throughout.

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.
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; 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 130*
Transfer acceptability: *CSU; UC**
C-ID PHYS 205; PHYS 200S for PHYS 230, 231 and 232 combined
Classical mechanics, thermodynamics, and fluid dynamics. Required for students whose major field is physics, chemistry, or engineering. This is the first semester of a three semester sequence.

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*
Transfer acceptability: *CSU; UC**
C-ID PHYS 210; PHYS 200S for PHYS 230, 231 and 232 combined
Classical electromagnetism, electromagnetic waves, and optics. Required for students whose major field is physics, chemistry, or engineering. This is the second semester of a three semester sequence.

PHYS 232 Principles of Physics (4)
3 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in PHYS 231 or PHYS 201, and MATH 205*
Transfer acceptability: *CSU; UC**
C-ID PHYS 215; PHYS 200S for PHYS 230, 231 and 232 combined
Modern Physics. Required for students whose major field is physics, chemistry, or engineering. This is the third semester of a three-semester sequence.

PHYS 295 Directed Study in Physics (1, 2, 3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
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: MD-375

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*
C-ID POLS 110 for POSC 101 and 102 combined
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*
C-ID POLS 110 for POSC 101 and 102 combined
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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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*
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: MD-241
For transfer information, consult a Palomar College Counselor.

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Alcohol and Other Drug Studies

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Psychological and Social Services

Associate in Arts for Transfer -
AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Psychology

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Alcohol and Other Drug Studies
• Psychological and Social Services

PROGRAMS 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.S. 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	Case Management, 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.

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 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**

Psychology

Psychology is a discipline that uses the scientific method to study animal and human behavior. This Associate in Arts in Psychology for Transfer degree offers students the opportunity to meet lower division transfer requirements for a major in Psychology, leading to a Bachelor of Arts or Bachelor of Science in Psychology at a California State University (CSU). Students who earn this degree will receive priority admissions at a CSU. The Associate in Arts in Psychology for Transfer degree is the first step in preparing students for professions and areas of interest related to psychology such as Clinical Psychology, Counseling, Medicine, Law, Management, Business, Social Work, and Teaching.

ASSOCIATE IN ARTS FOR TRANSFER MAJOR

Program Requirements
Courses may be double-counted between the GE course work and the major.

California State University General Education (CSUGE) pattern	39
OR	
Intersegmental General Education Transfer Curriculum (IGETC-CSU)	37
Major Requirements	20
Transferable Electives (dependent upon GE pattern and double-counting)	14-19
TOTAL PROGRAM UNITS	**60**

Program Requirements

PSYC 100	Introduction to Psychology	3
PSYC 205/ SOC 205	Statistics for the Behavioral Sciences	4
PSYC 230	Research Methods in Psychology	4

List A (Select 1 course)

BIOL 100	General Biology	4
BIOL 105	Biology with a Human Emphasis	4
PSYC 210	Physiological Psychology	4

List B (Select 1 course)

PSYC 110	Developmental Psychology - Child Through Adult	3
PSYC 120	Social Psychology	3
PSYC 225	Psychology of Abnormal Behavior	3
PSYC 235	Principles of Learning and Behavior Modification	3

List C (Select 1 course)

PSYC 105/ SOC 105	Marriage, Family and Intimate Relationships	3
PSYC 115	The Psychology of Personal Growth and Development	3
PSYC 125/ SOC 125	Human Sexuality	3
PSYC 130	Psychology of Women	3
TOTAL UNITS		**21**

COURSE OFFERINGS

PSYC 100 Introduction to Psychology (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in ENG 50 or eligiblity for ENG 100 as determined through the English placement process*
Transfer acceptability: *CSU; UC*
C-ID PSY 110
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*
C-ID SOCI 130
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*
C-ID PSY 180
Provides an overview, from a psychological perspective, of human growth and development throughout the lifespan, from conception to death. Biological and environmental influences on development, developmental theories and research of physical, cognitive, personality, and social development, as well as attention to developmental problems are examined.

PSYC 115 The Psychology of Personal Growth and Development (3)
3 hours lecture
Transfer acceptability: *CSU*
C-ID PSY 115
This course is designed with an applied focus for students interested in how psychology is useful in everyday life and how scientists, clinicians, and practitioners study and apply psychology. The course surveys different theories and psychological perspectives and how these may be applied across a person's life. The influence of factors such as culture, gender, ethnicity, historical cohort, and socio-economic status are examined. Emphasis on self understanding and application through the study of the individual, environment and social relationships which contribute to unique personal development.

PSYC 120 Social Psychology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID PSY 170
Considers individual human behavior in relation to the social environment. The power of the situation, other individuals, and the social group will be examined. Emphasized topics include: aggression, prejudice and stereotypes, interpersonal attraction, attitudes and attitude change, conformity, group phenomena, gender roles, cultural norms, person perception, and social cognition.

PSYC 125 Human Sexuality (3)
3 hours lecture
Note: *Cross listed as SOC 125*
Transfer acceptability: *CSU; UC*
C-ID PSY 130
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*
Psychological research and theories to examine the development and impact of gender identity. Explores the ways race, ethnicity, class, sexual orientation, and age modify women's experience. Areas covered include communication, mental and emotional adjustment, sex-role socialization, body image, family, work, and intimacy. Content will be relevant to both women and men.

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
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 (4)
4 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 and MATH 120 combined: maximum credit, one course*
C-ID SOCI 125
Quantitative and qualitative methods as applied to behavioral science data. Frequency distributions, measures of central tendency, variability, hypothesis testing, measures of probability and significance, correlation, regression, and inferential statistics. Also included are data entry, graphing, statistical analysis, and interpretation of data using word processing, spreadsheet, and statistical software.

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*
C-ID PSY 150
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*
C-ID PSY 120
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*
C-ID PSY 205B
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.

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 Case Management, Law and Ethics (3)
3 hours lecture
Note: *Cross listed as AODS 255/SOC 255*
Transfer acceptability: *CSU*
This course reviews the principles and practice of case management in addiction treatment including the processes of intake, screening, assessment, treatment planning, referral, and documentation. Professional and ethical codes of conduct and behavior are also reviewed and emphasized.

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
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 Works Management (PWM)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-135

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• 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.

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)		
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.S. 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 60	Supervision	3
CSIT 120	Computer Applications	3
Electives (Select 2 courses)		
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 57 Plan Interpretation and Cost Estimating (3)
3 hours lecture
Recommended preparation: *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 60 Supervision (3)
3 hours lecture
Note: *Cross listed as WWT 60*
Supervisory aspects of public agencies including organization, decision making, coordination, communication, and public relations. Personnel supervision including coaching, training, evaluation, discipline, team building, morale, and grievances. Safety programs and encouraging safe conditions, actions and attitudes.

Reading (READ)

Contact Reading Services for further information.
(760) 744-1150, ext. 2568
Office: H-119C

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

READ 10 Spelling (1)
1 hour lecture
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
Non-degree Applicable
An intensive study and application of techniques necessary to improve college level spelling ability.

READ 30 Fundamental Reading Skills (1, 2)
3 or 6 hours laboratory
Note: *Open Entry/Open Exit; Pass/No Pass grading only*
Non-degree Applicable
An individualized computer- assisted instruction program based on in-depth testing, assessment, prescription, and instruction for the improvement of students' vocabulary and 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Non-degree Applicable
Topics in Reading. See class schedule for specific topic covered. Course title will designate subject covered.

READ 48 Basic Reading Skills (4)
3 hours lecture - 3 hours laboratory
Designed to improve the basic reading skills of word calling, vocabulary development, and literal comprehension. Individual reading weaknesses are diagnosed and improved through a variety of instructional materials and reading techniques.

READ 49 Developing College Reading Skills (4)
3 hours lecture - 3 hours laboratory
Designed to improve students' vocabulary and comprehension skills in independent and technical materials including novels and textbooks or technical articles. Using a variety of instructional techniques and individualized practice, students will remedy difficulties with comprehension, vocabulary, and fluency with a goal of reading at or above the 10th grade level.

READ 51 Mastering Reading Skills (4)
3 hours lecture - 3 hours laboratory
Designed for students who need improved reading skills in order to succeed in college courses. In this course, students practice the reading process by reading extensively and intensively in order to develop confidence and enjoyment in reading. Students also read and respond to a variety of materials, including non-fiction and textbook assignments, applying strategies for reading difficult material to facilitate literal and affective comprehension as well as improving critical thinking skills. In addition, students develop writing, vocabulary, discussion and study skills.

See Catalog addendum at http://www.palomar.edu/catalog

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Reading. See Class Schedule for specific topic offered. Course title will designate subject covered.

Radio and Television

See Digital Broadcast Arts

Real Estate (RE)

Contact the Business Administration Department for further information.
(760) 744-1150, ext. 2488
Office: MD-341

Associate in Science Degrees -
AS Degree requirements are listed in Section 6 (green pages).
• Real Estate Broker License Preparation

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• 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

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).

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

Requirements to apply for a Real Estate Broker's License:

To obtain a real estate broker license, you must first qualify for and pass a written Bureau of Real Estate examination.

GENERAL REQUIREMENTS

- Age: You must be 18 years of age or older to be issued a license.
- Residence: Proof of Legal Presence in the United States is required. If you are not a California resident, go to www.brea.ca.gov for more information.
- Honesty: Applicants must be honest and truthful. Conviction of a crime may result in the denial of a license.
- Experience: A minimum of two years full-time licensed salesperson experience within the last five years or the equivalent is required. For further information, see Documenting Experience Requirements for the Broker Examination at www.brea.ca.gov.

Continuing education offerings do not satisfy the college-level course requirements for this examination.

Members of the California State Bar are statutorily exempt from the college-level course requirements but still need to demonstrate they have satisfied the two years full-time licensed salesperson experience within the last five years requirement or have at least two years real estate related experience within the last five years while practicing law in California.

Copies of official transcripts are generally acceptable evidence of completed courses. Applicants who have completed the eight college-level courses statutorily required for the broker examination and license are eligible to take the salesperson examination without providing further evidence of education or experience.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		
RE 100	Real Estate Principles	3
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
ACCT 201	Financial Accounting	4
	or	
RE 130	Real Estate Economics	3

Electives (Select 6 or 9 units)
If ACCT 201 and RE 130 are both completed, only 6 units are required from the electives below:

BUS 115	Business Law	3
	or	
BUS 117	Legal Environment of Business	3
RE 111	Advanced Real Estate Appraisal	3
RE 140	Introduction to Property Management	3
RE 155	Escrow and the Title Procedures	3
TOTAL UNITS		**24 - 28**

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 3-7 units)

ACCT 201	Financial Accounting	4
BUS 115	Business Law	3
	or	
BUS 117	Legal Environment of Business	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
TOTAL UNITS		**9 - 13**

COURSE OFFERINGS

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.

See Catalog addendum at http://www.palomar.edu/catalog

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 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 140 Introduction to Property Management (3)
3 hours lecture
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 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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Transfer acceptability: *CSU*
Topics in Real Estate. See Class Schedule for specific topic offered. Course title will designate subject covered.

Recreation (REC)

Contact the Department of Health, Kinesiology and Recreation Management 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
CE 100	Cooperative Education	3 - 4
EME 100/HE 104	Emergency Medical Responder	3
HE 100	Health Education and Fitness Dynamics	3
REC 110	Community Recreation	3
Group I (Select 1 of the following courses)		
KINE 206	Coaching of Women's Team Sports	1 - 2
KINE 229	Lifeguarding	1.5
KINE 230	Lifeguarding and Emergency Response	3
Group II (Select 1 of the following courses)		
HE 100L	Health Performance Lab	1 - 2
KINE 114A	Beginning Walkfit	1 - 2
KINE 114B	Intermediate Walkfit	1 - 2
KINE 114C	Advanced Walkfit	1 - 2
KINE 128A	Wellness Modalities- Cardio	1 - 2
KINE 128B	Wellness Modalities-Muscular	1 - 2
KINE 128C	Wellness Modalities- Functional	1 - 2
KINE 128D	Wellness Modalities- Periodization	1 - 2
Group III (Select 1 of the following courses)		
KINE 150A	Beginning Weight Training	1 - 2
KINE 150B	Intermediate Weight Training- Strength Training for Total Fitness	1 - 2
KINE 150C	Advanced Weight Training- Power Lifting and Plyometrics Training	1 - 2
KINE 204A	Off Season Sports Conditioning I Aerobic/Anaerobic Development	1 - 2
KINE 204B	Off Season Conditioning II- Motor Skill Development and Application	1 - 2
KINE 205A	In Season Sports Conditioning I Aerobic and Anaerobic	1 - 2
KINE 205B	In Season Conditioning II-Fine Motor Skills Maintenance	1 - 2
TOTAL UNITS		**18 - 23**

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
BMGT 105	Small Business Management	3
CE 100	Cooperative Education	1 - 4
EME 100/HE 104	Emergency Medical Responder	3
HE 100	Health Education and Fitness Dynamics	3
REC 110	Community Recreation	3
REC 120	Recreational Team Sports	2
Group I (Select 1 of the following courses)		
KINE 206	Coaching of Women's Team Sports	1 - 2
KINE 229	Lifeguarding	1.5
KINE 230	Lifeguarding and Emergency Response	3
MUS 197	Topics in Music	0.5 - 3
Group II (Select 1 of the following courses)		
HE 100L	Health Performance Lab	1 - 2
KINE 130	Individualized Fitness Exercise	1 - 2
Group III (Select 1 of the following courses)		
KINE 170A	Team Sports - Baseball Strategies	1 - 2
KINE 170C	Team Sports- Basketball Strategies	1 - 2
KINE 170E	Team Sports- Football Strategies	1 - 2
KINE 170G	Team Sports- Soccer Strategies	1 - 2
KINE 170K	Team Sports- Volleyball Strategies	1 - 2
KINE 175A	Psychology of Specific Athletic Competition - Contact	2
KINE 175B	Psychology of Specific Athletic Competition - Minimal Contact	2
KINE 175C	Psychology of Specific Athletic Competition - Non-Contact	2
KINE 175D	Psychology of Specific Athletic Competition - Skilled	2
Group IV (Select 1 of the following courses)		
KINE 210	Professional Prep for Football - Theory and Mental Preparation	3
KINE 210L	Professional Prep for Football Lab- Biomechanic Application	1 - 1.5
KINE 211	Professional Prep. for Basketball - Theory and Mental Preparation	3
KINE 211L	Professional Preparation for Basketball Lab	1 - 1.5
KINE 212	Professional Prep for Baseball- Theory and Mental Preparation	3
KINE 212L	Professional Prep for Baseball Lab - Biomechanic Application	1 - 1.5
KINE 215	Professional Prep for Wrestling - Theory and Mental Preparation	3
KINE 215L	Professional Prep Wrestling Lab - Biomechanic Application	1 - 1.5
KINE 216	Professional Prep for Golf- Theory and Mental Preparation	3
KINE 216L	Professional Prep for Golf Lab - Biomechanic Application	1 - 1.5
KINE 217	Professional Prep Tennis - Theory and Mental Preparation	3
KINE 217L	Professional Prep Tennis Lab - Biomechanic Application	1 - 1.5
TOTAL UNITS		**21.5 - 31**

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.

Registered Dental Assisting

See Dental Assisting

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: MD-261

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 104 Introduction to Buddhism (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Introduction to the core practices, beliefs, institutions, and characteristics of Buddhist communities.

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*
Introduces students to core practices, beliefs, and institutions of religions in the United States. The course also focuses on the interactions of religious communities with national culture of the United States, particularly in regards to social factors of race, ethnicity, class, age, and gender. Study concentrates on "religion" associated with Native Americans, Asian Americans, Latinos, African Americans, Jewish communities, Roman Catholics, Protestants, Muslims, Buddhists, and a variety of others.

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.
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 Business (BUS)

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: MD-241
For transfer information, consult a Palomar College Counselor.

Associate in Arts for Transfer -

AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Sociology

Sociology

Sociology is the study of social behavior and human groups and focuses on social relationships, how those relationships influence people's behavior and beliefs, and how societies develop and change. Students will learn the main theoretical approaches in sociology that explain society on both a micro level through the study of social interaction, and on a macro scale through the study of large social institutions. The curriculum for the Associate in Arts in Sociology for Transfer is intended to develop critical thinking skills, to explore the diversity of our social world, and to adequately prepare students for transfer to an upper division program in Sociology. This degree allows students the opportunity to meet the lower division transfer requirements for a major in Sociology.

ASSOCIATE IN ARTS FOR TRANSFER MAJOR

Program Requirements
Courses may be double-counted between the GE course work and the major.

California State University General Education (CSUGE) pattern	39
OR	
Intersegmental General Education Transfer Curriculum (IGETC-CSU)	37
Major Requirements	18-19
Transferable Electives (dependent upon GE pattern and double-counting)	11-20
TOTAL PROGRAM UNITS	**60**

Required		
SOC 100	Introduction to Sociology	3
List A (Select 2 courses)		
SOC 110	Social Problems	3
PSYC/ SOC 205	Statistics for the Behavioral Sciences	4
PSYC 230	Research Methods in Psychology	4
List B (Select 2 courses)		
SOC/ PSYC 105	Marriage, Family and Intimate Relationships	3
SOC 135	Gender and Society	3
SOC/AMS/ MCS 200	Race, Class, and Ethnic Groups in America	3
List C (Select 1 course)		
SOC 115	Introduction to Women's Studies	3
SOC/ PSYC 125	Human Sexuality	3
SOC 130	Introduction to Sociology of Health	3
SOC 145/ PSYC 145	Psychology and Sociology of Aging	3
SOC 165	Self and Society	3
TOTAL UNITS		**19 - 20**

COURSE OFFERINGS

SOC 100 Introduction to Sociology (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID SOCI 110
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*
C-ID SOCI 130
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*
C-ID SOCI 115
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 125 Human Sexuality (3)
3 hours lecture
Note: *Cross listed as PSYC 125*
Transfer acceptability: *CSU; UC*
C-ID PSY 130
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 135 Gender and Society (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID SOCI 140
What does it mean to be a man or a woman in today's society? This course is an introduction to the study of gender and society. Its focus will be on changes and continuities in the gender roles of men and women and on the role of gender as an organizing principle of contemporary social life. We will examine theoretical approaches to explaining gender, the impact of race, ethnicity, social class, and sexual orientation on conceptions of gender and the impact of gender on interactions in everyday life. As we explore these themes, we will study how culture, the family, the economy, the political system, mass media and the legal system have shaped and in turn are shaped by gender roles.

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.

See Catalog addendum at http://www.palomar.edu/catalog

SOC 165 Self and Society (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Explores how behaviors, thoughts, and emotions of individuals are created and modified by the social and cultural conditions in which they live. The framework is a theoretical perspective called symbolic interaction. Its focus is on how interactional dynamics shape our behavior and our sense of who we are and what we can do. We use a multicultural approach to understanding the social construction of the self in society. We will analyze issues of identity and equality as they relate to social class, disability, sexual orientation, and among people of color (specifically African Americans and Latino/a's.)

SOC 197 Special Topics in Sociology (1, 2, 3)
1, 2, or 3 hours lecture
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*
C-ID SOCI 150
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 (4)
4 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 – MATH 120 and PSYC/SOC 205 combined: maximum credit, one course*
C-ID SOCI 125
Quantitative and qualitative methods as applied to behavioral science data. Frequency distributions, measures of central tendency, variability, hypothesis testing, measures of probability and significance, correlation, regression, and inferential statistics. Also included are data entry, graphing, statistical analysis, and interpretation of data using word processing, spreadsheet, and statistical software.

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 Case Management, Law and Ethics (3)
3 hours lecture
Note: *Cross listed as AODS 255/PSYC 255*
Transfer acceptability: *CSU*
This course reviews the principles and practice of case management in addiction treatment including the processes of intake, screening, assessment, treatment planning, referral, and documentation. Professional and ethical codes of conduct and behavior are also reviewed and emphasized.

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 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: H-201

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).

SPAN 101 Spanish I (5)
5 hours lecture - 1 hour laboratory
Note: *Not open to students with credit for SPAN 101B; corresponds to two years of high school study.*
Transfer acceptability: *CSU; UC*
First semester of Spanish. A study of the Spanish language and Spanish-speaking cultures, with emphasis on the development of communicative skills and basic structures. Focus is on teaching elementary-level language acquisition in a cultural context through listening, speaking, reading and writing. Interacts with authentic language in context. Combines in-class instruction and practice with self-paced study in the World Languages laboratory. No previous experience in Spanish is required.

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*
Equivalent to the first half of Spanish 101. A study of the Spanish language and Spanish-speaking cultures, with emphasis on the development of communicative skills and basic structures. Focus is on teaching elementary-level language acquisition in a cultural context through listening, speaking, reading and writing. Interacts with authentic language in context. No previous experience in Spanish is required.

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; corresponds to two years of high school study.*
Transfer acceptability: *CSU; UC*
Spanish 101B is equivalent to the second half of Spanish 101. A study of the Spanish language and Spanish-speaking cultures, with emphasis on the development of communicative skills and basic structures. Focus is on teaching elementary-level language acquisition in a cultural context through listening, speaking, reading and writing. Interacts with authentic language in context.

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*
Note: *Not open to students with credit for SPAN 102B; corresponds to two years of high school study.*
Transfer acceptability: *CSU; UC*
Second semester of Spanish. A study of Spanish language and Spanish-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Continues focus on teaching elementary-level language acquisition in a cultural context through listening, speaking, reading and writing. Interacts with authentic language in context. Combines in-class instruction with self-paced study in the World Languages 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*
Note: *Not open to students with credit for SPAN 201B; corresponds to three years of high school study.*
Transfer acceptability: *CSU; UC*
Third semester of Spanish. A study of the Spanish language and Spanish-speaking cultures with an emphasis on structures and readings of culturally relevant authentic materials. Focus in on teaching culture and facilitates intermediate-level language acquisition through listening, speaking, reading and writing. Students will continue to interact with authentic language in context. Combines in-class instruction with self-paced study in the World Languages 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*
Fourth semester of Spanish. A continued study of the Spanish language and Spanish-speaking cultures, focusing on the refined use of intermediate-level structures and readings of culturally relevant authentic materials. Emphasis is on the expansion of cross-cultural awareness, as well as, the development of language skills in order to acquire communicative competence in Spanish. Teaches culture and facilitates language acquisition through listening, speaking, reading and writing. Interacts with more sophisticated authentic language in context. Conducted in Spanish.

SPAN 211 Spanish for Heritage Speakers I (5)
5 hours lecture - 1 hour laboratory
Transfer acceptability: *CSU; UC*
Designed for heritage speakers of Spanish or other linguistically qualified students. Provides instruction that builds upon the existing reading, writing, speaking and listening skills. Also focuses on the cultural heritage and knowledge of Spanish-speaking students. Increases awareness of linguistic registers, expands vocabulary, and develops an appreciation for Hispanic and Latino cultures as manifested in Spanish speaking countries and in the United States. This course is entirely conducted in Spanish.

SPAN 212 Spanish for Heritage Speakers II (5)
5 hours lecture
Prerequisite: *SPAN 211 or four years of high school Spanish*
Transfer acceptability: *CSU; UC*
Course is designed for heritage speakers of Spanish or other linguistically qualified students. Continues to provide instruction that builds upon the existing reading, writing, speaking and listening skills and the cultural heritage and knowledge of Spanish-speaking students. Continues to increase awareness of linguistic registers and expand vocabulary toward the advanced level. Practice in expository and creative writing based on culturally relevant readings and critical thinking. Develops an appreciation for Hispanic and Latino cultures as manifested in Spanish speaking countries and in the United States. This course is entirely conducted in Spanish.

SPAN 235 Intermediate Conversation and Writing (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in SPAN 201, or SPAN 211*
Transfer acceptability: *CSU; UC*
An intermediate-level study of the Spanish language and Spanish-speaking cultures. Focus is on developing oral and written proficiency within a cultural context.

Speech (SPCH)

Contact the Speech Communication/Forensics/ASL Department for further information.
(760) 744-1150, ext. 2405
Office: H-201J

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*
C-ID COMM 110
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*
C-ID COMM 120
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*
C-ID COMM 150
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
Transfer acceptability: *CSU*
Planning, preparation, management, and supervision of speech tournaments and other interscholastic speech activities.

SPCH 150 Debate Research (1)
3 hours laboratory
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
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.
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.

Theatre Arts (TA)

Contact the Performing Arts Department for further information.
(760) 744-1150, ext. 2316
Office: PAC-112

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Theatre Arts

Associate in Arts for Transfer -
AA-T, IGETC, and CSUGE requirements are listed in Section 6 (green pages).
• Theatre Arts

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Entertainment Technology
• Technical Theatre

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	4
DBA 100	Introduction to Radio and TV	3
DBA/ENTT 120	Digital Television Production	3
ENTT/TA 105	Introduction to Technical Theatre	3
ENTT/TA 107	Lighting for Stage and Television	3
TA/ENTT/ MUS 112	Basic Sound Reinforcement	3
TA/DNCE/ ENTT 124	Beginning Stage Management	3
TA 192A	Technical Theatre Practicum I	1
Elective Courses (select 10 units):		
TA/FASH/ ENTT 106A	Basic Costume I: Technology	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TA/FASH 109	Elementary Stage Make-Up	3
TA 111	Technical Theatre Production	0.5
TA/ENTT/ MUS 114	Advanced Sound Reinforcement	2
TA/ENTT 170	Computer Aided Drafting for Theatre	2
TA/ENTT 171	Advanced Lighting Lab	2
TA 192B	Technical Theatre Practicum II	1
TA 192C	Technical Theatre Practicum III	1
TA 192D	Technical Theatre Practicum IV	1
DBA/ENTT 103	Introduction to Audio-Visual Systems	3
DBA/ENTT 130	Radio Production	3
DBA 230	Digital Audio with Pro Tools	3
DBA 298A	Beginning Broadcast Internship	3
DBA 298B	Intermediate Broadcast Internship	3
DBA/ ENTT 298C	Advanced Broadcast Internships	3
FASH 126	Fashion Show Presentation	3
FASH 135	Introductory Sewing for Apparel	4
FASH 139	Pattern Making/Fashion Design	3
WELD 100	Welding I	3
TOTAL UNITS		**33**

Entertainment Technology Certificate of Achievement is also listed in Digital Broadcast Arts and Entertainment Technology.

Technical Theatre

A program that prepares individuals to apply artistic, technical and dramatic principles and techniques to the communication of dramatic information, ideas, moods, and feelings through technical theatre methods. Includes instruction in set design, lighting, design, sound effects, theatre acoustics, scene painting, property management, costume design, technical direction and production, and use of computer applications to support these functions above.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
TA 100	Introduction to the Theatre	3
TA/ENTT 105	Introduction to Technical Theatre	3
TA/FASH/ ENTT 106A	Basic Costume I: Technology	3
TA/ENTT 107	Lighting for Stage and Television	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TA 111	Technical Theatre Production	0.5
TA/ENTT/ MUS 112	Basic Sound Reinforcement	3
TA 115	Acting I	3
	or	
TA 116	Acting II	3
TA/DNCE/ ENTT 124	Beginning Stage Management	3
TA/ENTT 170	Computer Aided Drafting for Theatre	2
TA 192A	Technical Theatre Practicum I	1
TA 192B	Technical Theatre Practicum II	1
History/Literature Courses (select one of the following):		
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
TA 150	Dramatic Literature and Script Analysis	3
Advanced Technical Courses (select one of the following):		
TA/FASH 109	Elementary Stage Make-Up	3
TA/ENTT/ MUS 114	Advanced Sound Reinforcement	1.5 - 2
TA/ENTT 171	Advanced Lighting Lab	2
FASH 135	Introductory Sewing for Apparel	4
TOTAL UNITS		**33 - 35.5**

Recommended Electives:ARCH 105; CFT 100; TA 191A; TA 191B; TA 192C; TA 192D

See Catalog addendum at http://www.palomar.edu/catalog

Theatre Arts

The Palomar Theatre Program cultivates the potential of theatre to make an impact on the lives of practitioners, audiences, and communities. Through our technique classes, academic offerings and season of productions the program emphasizes the power of theatre to transform individuals and society through imagination, empathy, analysis, and action. The program empowers students to follow the discipline of craft while taking risks and developing their own artistic sensibility. Critically-acclaimed productions range from the classical to the experimental, often serving as a focal point for campus-wide dialogue on social issues. The program also emphasizes collaboration with the other disciplines in the Performing Arts Department and colleagues in the Art Department.

A.A. DEGREE MAJOR

Program Requirements:

TA 100	Introduction to the Theatre	3
TA/ENTT 105	Introduction to Technical Theatre	3
TA/ENTT 107	Lighting for Stage and Television	3
TA 115	Acting I	3
TA 150	Dramatic Literature and Script Analysis	3
TA 192A	Technical Theatre Practicum I	1

Beginning Costume and Makeup Courses (Select one):

TA/ENTT/ FASH 106A	Basic Costume I: Technology	3
TA/FASH 109	Elementary Stage Make-Up	3

Theatre History Courses (Select One):

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

Electives (Select 9 Units):

TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TA/FASH/ ENTT 106B	Basic Costume II: Design	3
TA/ENTT/ MUS 112	Basic Sound Reinforcement	3
TA 113A	Improvisational Theatre	1 3
	or	
TA 113B	Improvisational Theatre II	3
TA/ENTT/ MUS 114	Advanced Sound Reinforcement	1.5 - 2
TA 116	Acting II	3
TA 119	Voice and Speech	3
TA/DNCE/ ENTT 124	Beginning Stage Management	3
TA/SPCH 125	Beginning Oral Interpretation	3
TA 160	Beginning Stage Direction	3
TA/MUS/ DNCE 173	Musical Theatre Scenes	1
TA 184	Creative Theatre Ensemble	1 - 2
TA 191A	Rehearsal and Performance I	1 - 2
TA 191B	Rehearsal and Performance II	1 - 2
TA 191C	Rehearsal and Performance III	1 - 2
TA 191D	Rehearsal and Performance IV	1 - 2
TA 192B	Technical Theatre Practicum II	1
TA 192C	Technical Theatre Practicum III	1
TA 192D	Technical Theatre Practicum IV	1
TA 215	Acting III	3
TA 216	Acting IV	3
TOTAL UNITS		**31**

Theatre Arts

The Associate in Arts in Theatre Arts for Transfer prepares students to move into curriculum at a four-year institution leading to a baccalaureate degree in Theatre Arts. Careers in this field include teaching, design, technical theatre, theatre management, professional performance, stage direction, and stage management among others. Completion of the Associate in Arts in Theatre Arts for Transfer degree provides guaranteed admission with junior status to the CSU system along with priority admission to CSU, San Marcos in the Visual and Performing Arts major. Upon completion, students will understand and be able to demonstrate the theories and techniques of acting; the technical production processes for the theatre arts, demonstrate knowledge of the historical and cultural dimensions of theatre, and understand the interaction between script, actor, and audience and the areas of scenery, lighting, sound, and costume.

To obtain the Associate in Arts in Theatre Arts for Transfer students must complete the following:

Maximum of 60 CSU-transferable units with a minimum grade point average (GPA) of 2.0. and a grade of "C" or better in all courses required for the major:

• a minimum of 18 semester units in the major as determined by the community college district, and:

one of the following general education patterns:

• the California State University General Education-Breadth (CSU GE-Breadth) pattern of 39 units; OR:

• the Intersegmental General Education Transfer Curriculum (IGETC) pattern of 37 units

Please consult a counselor regarding specific course requirements for your transfer institution.

AA-T TRANSFER MAJOR

Program Requirements

TA 100	Introduction to the Theatre	3
	or	
TA 140	History of the Theatre From Ancient Greece Through the 17th Century	3
TA 115	Acting I	3
TA 191A	Rehearsal and Performance I	2
	and	
TA 191B	Rehearsal and Performance II	2
	or	
TA 192A	Technical Theatre Practicum I	1
	and	
TA 192B	Technical Theatre Practicum II	1
	and	
TA 192C	Technical Theatre Practicum III	1

Electives (Select 9 units excluding any courses taken above)

TA/FASH/ ENTT 106A	Basic Costume I: Technology	3
TA/ENTT 107	Lighting for Stage and Television	3
TA/ENTT 108	Stagecraft and Scene Design for Theatre and Television	3
TA/FASH 109	Elementary Stage Make-Up	3
TA 116	Acting II	3
TA 150	Dramatic Literature and Script Analysis	3
TA 191A	Rehearsal and Performance I	2
	and	
TA 191B	Rehearsal and Performance II	2
	or	
TA 192A	Technical Theatre Practicum I	1
	and	
TA 192B	Technical Theatre Practicum II	1
	and	
TA 192C	Technical Theatre Practicum III	1
TOTAL UNITS		**18-19**

COURSE OFFERINGS

Individual courses are not repeatable. State Regulations (Title 5, Sections 55040-55041) also limit the number of times a student may take courses with related content and similar primary educational activities. Therefore, some combinations of course work in Theatre Arts have limitations on the number of times a student may enroll. Specific information about enrollment limitations for Theatre Arts classes is available at http://www.palomar.edu/schedule/restrictions.htm

TA 100 Introduction to the Theatre (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID THTR 111
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 - 4 hours laboratory
Note: *Cross listed as ENTT 105*
Transfer acceptability: *CSU; UC*
A practical introduction to the theories and applications of construction techniques, language, principles, safety, and tools used in the creation of theatrical scenery and properties. The language, tools, and principles of other technical theatre crafts, such as lighting, costuming, make-up, sound design, and stage management will also be presented.

TA 106A Basic Costume I: Technology (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as FASH 106A and ENTT 106A*
Transfer acceptability: *CSU; UC*
C-ID THTR 174
A foundational course providing a basic introduction to practices, theories, techniques and procedures of costume technology for theatre, film and television. Focus will be on the structure of a working costume shop, basic hand and machine sewing techniques, textile identification, basic garment fitting, simple pattern modification, and production wardrobe crew procedures. Practical training in college productions is incorporated during the course of study.

TA 106B Basic Costume II: Design (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as FASH 106¬B and ENTT 106B*
Transfer acceptability: *CSU; UC*
A foundational course providing a basic introduction to practices, theories, techniques and procedures of costume design for theatre, film and television. Through a series of costume projects, students develop design theory, drawing techniques and script analysis abilities. Practical training in college productions is incorporated during the course of study.

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*
C-ID THTR 173
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*
C-ID THTR 172
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*
Note: *Cross listed as FASH 109*
Transfer acceptability: *CSU; UC*
C-ID THTR 175
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/FASH 106 or TA/ENTT 107 or TA/ENTT 108, or TA/FASH 109*
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 Basic Sound Reinforcement (3)
2 hours lecture - 3 hours laboratory
Note: *Cross listed as ENTT 112 and MUS 112*
Transfer acceptability: *CSU*
An introduction to basic sound equipment and reinforcement principles. To understand basic set up, operation, and troubleshooting of live Public Address systems in a concert or theatrical setting.

TA 113A Improvisational Theatre I (3)
3 hours lecture
Transfer acceptability: *CSU*
Improvisational theatre techniques for various forms that engage the audience in an interactive performance setting. The course includes basic skills for creating and sustaining improvised situations as well as improvisational structures that challenge the participant's skills. Also included are improvisational structures that will reflect and analyze societal situations of conflict found in the participants' lives and communities.

TA 113B Improvisational Theatre II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in TA 113A*
Transfer acceptability: *CSU*
Advanced skills for creating, performing and facilitating improvisational and interactive theatre events.

TA 114 Advanced Sound Reinforcement (1.5 - 2)
4½ - 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT/MUS 112*
Note: *Cross listed as ENTT/MUS 114*
Transfer acceptability: *CSU*
Advanced principles of electronic sound, acoustics, equalization and effects processing, recording of live sound in a concert or theatrical setting, equipment management and design techniques.

TA 115 Acting I (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID THTR 151
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 Acting II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in TA 115*
Transfer acceptability: *CSU; UC*
C-ID THTR 152
This course follows Acting I and continues the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process. 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
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 124 Beginning Stage Management (3)
2 hours lecture - 3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 100*
Note: *Cross listed as DNCE/ENTT 124*
Transfer acceptability: *CSU; UC*
Introduces students to the practices and techniques of Stage Management. Students will assist a stage manager on a project during the course of the semester. Regular availability on evenings and weekends is required.

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 140 History of the Theatre From Ancient Greece Through the 17th Century (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID THTR 113
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 and Script Analysis (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
C-ID THTR 114
Fully explore an in-depth methodology of reading, analyzing and understanding play scripts in a variety of genres and styles. Investigate techniques used to determine how to read a play for its' structure, scrutinizing the playwright's methods of creating theatre through plot, character and imagery, and understanding how scripts convey meaning to the professional theatre artist and theatre-goer as distinct from other forms of literature.

TA 157 Theatre and Social Justice (3)
3 hours lecture
Note: *Cross listed as MCS 157*
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 (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 105*
Note: *Cross listed as ENTT 170*
Transfer acceptability: *CSU*
An introduction to Computer Aided Drafting (CAD) for theatre. Hands on experience with CAD software to be supplemented with basic mechanical drafting terminology and techniques. An introduction to user specific third party software as related to drafting and designing of scenery and lighting for college productions.

TA 171 Advanced Lighting Lab (2)
6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 107*
Note: *Cross listed as ENTT 171*
Transfer acceptability: *CSU; UC*
Crafting and implementation of the lighting design for performances using the techniques, theories, and procedures necessary to develop lighting and lighting effects. Practical experience in college theatre, dance, and music 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 (1, 1.5, 2)
3, 4½ or 6 hours laboratory
Transfer acceptability: *CSU; UC*
Students in theatre and allied disciplines work collaboratively on creating an original devised theatre performance or on an existing text that requires an ensemble approach to the performance.

TA 191A Rehearsal and Performance I (1, 2)
3 or 6 hours laboratory
Transfer acceptability: *CSU; UC*
C-ID THTR 191
An initial experience of the rehearsal and performance of a departmental theatre production. Generally this would involve an ensemble, non-speaking or small supporting role.

TA 191B Rehearsal and Performance II (1, 2)
3 or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 191A*
Transfer acceptability: *CSU; UC*
C-ID THTR 191
Second experience of the rehearsal and performance of a departmental theatre production. Generally this would involve a small to medium supporting role in the production.

TA 191C Rehearsal and Performance III (1, 2)
3 or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 191B*
Transfer acceptability: *CSU; UC*
C-ID THTR 191
Third experience of the rehearsal and performance of a departmental theatre production. Generally this would involve a medium supporting role or leading role in the production.

TA 191D Rehearsal and Performance IV (1, 2)
3 or 6 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 191C*
Transfer acceptability: *CSU; UC*
C-ID THTR 191
Fourth experience of the rehearsal and performance of a departmental theatre production. Generally this would involve a large supporting role or lead role in the production.

TA 192A Technical Theatre Practicum I (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA/ENTT 105, or concurrent enrollment in TA/ENTT105*
Note: *May be open entry/open exit; At least one unit of this course is required of all theatre arts majors*
Transfer acceptability: *CSU; UC*
C-ID THTR 192
Students will gain practical experience in the application of production responsibilities in house staff. Students will also observe and evaluate the production responsibilities of the stage crew.

TA 192B Technical Theatre Practicum II (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 192A*
Transfer acceptability: *CSU; UC*
C-ID THTR 192
Students will gain practical experience in the application of production responsibilities in the stage crew. Students will also observe and evaluate the production responsibilities of the technical staff.

TA 192C Technical Theatre Practicum III (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 192B*
Transfer acceptability: *CSU; UC*
C-ID THTR 192
Students will gain practical experience in the application of production responsibilities in the technical staff. Students will also observe and evaluate the production responsibilities of the leadership roles in the technical staff.

TA 192D Technical Theatre Practicum IV (1)
3 hours laboratory
Prerequisite: *A minimum grade of 'C' in TA 192C*
Transfer acceptability: *CSU; UC*
C-ID THTR 192
Students will gain practical experience in the application of production responsibilities in a leadership role in the technical staff. Students will also observe and evaluate the production responsibilities of the design staff.

TA 197E Management of Theatre Activities (.5-3)
1½ to 9 hours laboratory
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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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 215 Acting III (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in TA116*
Transfer acceptability: *CSU; UC*
Emphasizes analysis of literary text and physical methods in the process of creating characters. Scene study and role preparation of significant texts by modern playwrights.

TA 216 Acting IV (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in TA116*
Transfer acceptability: *CSU; UC*
Advanced topics in acting technique including approaches to style and contemporary innovations in acting methods.

TA 297 Experimental Topics in Theatre (1, 2, 3)
3, 6, or 9 hours laboratory
Limitation on enrollment: *Previous theatre experience*
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 Degrees -

- AS 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
- AS University Studies: Emphasis in Health and Fitness
- AA University Studies: Emphasis in Humanities
- AS University Studies: Emphasis in Mathematics and Science
- AS University Studies: Emphasis in Media and Communication
- AA University Studies: Emphasis in Social Sciences
- AA 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 7 (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 7 (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 Requirement 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.

ASSOCIATE 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 and Fitness	4
Multicultural	3
TOTAL UNITS	**65 - 70**

Select An Area of Emphasis:
Students may earn only one University Studies degree.

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 201, 202
Business 100, 115, 116, 117, 125, 204, 205
CSIT-Computer Science 112, 114, 146, 212
CSIT-Information Technology 105, 120, 121
Economics 101, 102, 110, 115, 120
Mathematics 110, 120, 130, 135, 140, 141, 146, 200, 205, 206
Philosophy 116, 121, 122
Political Science 102
Psychology 100, 115, 205, 230
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, 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
Arabic 101, 101A, 101B, 102 102A, 102B, 201, 201A, 201B
Chicano Studies 100, 101, 102, 105, 125
Communications 105
English 280

History 130
Japanese 130
Judaic Studies 106, 107
Multicultural Studies 100, 110, 120, 124, 125, 157, 165, 200
Psychology 125, 145
Religious Studies 101, 106, 107, 124
Sociology 115, 125, 135, 145, 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.

Select 18 units minimum
Must complete course work from at least two disciplines.
Biology 100 or 101, 101L
Child Development 100
Dance 101
Earth Sciences 100, 100L
English 100, 202 **or** 203, 205, 220, 221, 225, 226
Geography 103, 105
History 101, 102, 107
Kinesiology 102
Math 105, 106
Music 100
Philosophy 113, 116, 200
Physical Science 101, 101L
Speech 100, 105
Theatre Arts 100

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 150, 215, 216
Art 100, 102, 103, 104, 105, 120, 121, 145, 146, 163, 164, 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, 130, 131, 140, 141, 149, 205, 206, 210 , 211, 217, 218, 230
Entertainment Technology 105, 106A, 107, 108
Fashion 100, 105, 106A, 109, 110, 120, 125, 130, 135, 136, 139, 145
Graphic Communications 100
Graphic Communications-Imaging & Publishing 140
History 105, 106
Interior Design 100, 115, 125, 130, 150
Music 100, 101, 103, 105, 106, 110, 111, 115, 116, 117, 171, 210, 215, 216, 220, 222
Photography 100, 125
Theatre Arts 100, 105, 106A, 107, 108, 109, 113A, 113B, 115, 116, 140, 141, 150, 155, 215, 216

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 or 101, 101L, 105 or 106, 185, 200, 201
Chemistry 100, 104, 105, 110, 110L, 115, 115L, 205
Child Development 100
Emergency Medical Education 100
Family and Consumer Sciences 165, 185
Health 100, 104, 165
Mathematics 120, 135
Microbiology 200
Nutrition 165, 185
Physics 120, 121, 200, 201
Psychology 100, 110, 120, 205, 210
Sociology 100, 130, 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
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 111, 113, 114, 116, 121, 122, 125, 126, 140, 141, 200
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 or 101, 101L, 102, 105 or 106, 114, 114L, 118, 118L, 130 or 131, 131L, 135, 185, 200, 201

See Catalog addendum at http://www.palomar.edu/catalog

Botany 100 or 101, 101L
Chemistry 110, 110L, 115, 115L, 205, 210, 220, 221
CSIT-Computer Science 112, 114, 146, 210, 212, 220, 222
CSIT-Web Technology 170
Earth Sciences 100, 100L, 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
Nutrition 185
Oceanography 100, 100L
Physical Science 100, 100L, 101, 101L
Physics 120, 121, 200, 201, 230, 231, 232
Psychology 205, 205L, 210
Sociology 205, 205L
Zoology 100 or 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
Anthropology 107
Cinema 100, 102, 103, 225
Communications 100
Digital Broadcast Arts 100, 110, 220, 225
English 100, 150, 202, 203, 215
Journalism 101, 105, 140
Photography 100, 105, 140
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 or 101, 105, 107, 110, 115, 125, 126, 130, 137, 140, 225
Biology 100 or 101, 101L, 105 or 106
Chicano Studies 101, 102
Child Development 100, 103, 104, 105, 115
Communications 100, 105
CSIT-Information Technology 105
Economics 101, 102, 120
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
Judaic Studies 107
Mathematics 120
Multicultural Studies 200
Nutrition 165
Political Science 100, 101, 102, 110
Psychology 100, 105, 110, 115, 120, 125, 130, 145, 205, 205L, 210, 225, 230, 235
Religious Studies 102, 107
Sociology 100, 105, 110, 115, 125, 130, 135, 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 200
Speech 100, 131

Select 12 units minimum
American Indian Studies 107A, 107B, 108A, 108B, 151, 152, 153, 154, 161A, 161B, 166A, 166B, 167A, 167B, 207A, 207B, 266A, 266B
American Sign Language 100, 100L, 101, 101L, 110, 205, 205L, 206, 206L
Anthropology 107
Arabic 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B
Chinese 101, 102, 201
English 150
French 101, 102, 201, 202
German 101, 102, 201, 202
Italian 101, 102, 201
Japanese 101, 102, 201, 202
Spanish 101, 101A, 101B, 102, 102A, 102B, 201, 201A, 201B, 202, 211, 212, 235

Upholstery (UP)

Contact the Design and Consumer Education Department for further information.
(760) 744-1150, ext. 2349
Office: P-8A

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
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*
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*
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
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
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
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.
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-135

Associate in Science Degrees -
AS 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

Provide comprehensive education to a diverse constituency for a career in the water and wastewater field that prepares students to contribute effectively in a profession responsible for protecting public health.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
WWT/WTE 50	Waterworks Mathematics	3
WWT 52	Treatment Plant Operations	3
WWT 54	Collection Systems Operator	3
WWT/WTE 56	Instrumentation and Controls	3
WWT/PWM/ WTE 60	Supervision	3
WWT 64	Treatment Process Control	3
WWT/WTE 66	Motors and Pumps, Operation and Maintenance	3
Electives (Select 6 units)		
WWT/WTE 58	Backflow Prevention	3
WWT/WTE 62	Cross Connection Specialist	3
WWT 97	Wastewater Technology Education Topics	0.5 - 4
* 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 50 Waterworks Mathematics (3)
3 hours lecture
Note: *Cross listed as WTE 50*
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 52 Treatment Plant Operations (3)
3 hours lecture
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.

See Catalog addendum at http://www.palomar.edu/catalog

WWT 54 Collection Systems Operator (3)
3 hours lecture
Wastewater collection systems and collection system equipment, pipeline cleaning and maintenance, system design, safety procedures, inspecting and testing procedures used in collections systems.

WWT 56 Instrumentation and Controls (3)
3 hours lecture
Note: *Cross listed as WTE 56*
Introduction to basic electrical theory, applications, common uses, and real world examples of control systems and instrumentation used in water distribution, water and wastewater treatment plants; including switches, relays, alarms, motors, instrumentation, valve actuators, computers, and communication.

WWT 58 Backflow Prevention (3)
2½ hours lecture - 1½ hours laboratory
Note: *Cross listed as WTE 58*
Provides intensive training focused on the field testing procedure for backflow prevention devices and training in the recognition and abatement of cross connections in water and plumbing systems. Students will acquire the knowledge, skills, and abilities required to test as a certified backflow tester.

WWT 60 Supervision (3)
3 hours lecture
Note: *Cross listed as PWM/WTE 60*
Supervisory aspects of public agencies including organization, decision making, coordination, communication, and public relations. Personnel supervision including coaching, training, evaluation, discipline, team building, morale, and grievances. Safety programs and encouraging safe conditions, actions and attitudes.

WWT 62 Cross Connection Specialist (3)
3 hours lecture
Recommended preparation: *WTE/WWT 58*
Note: *Cross listed as WTE 62*
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 the American Water Works Association.

WWT 64 Treatment Process Control (3)
3 hours lecture
Recommended preparation: *WWT/WTE 50*
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 66 Motors and Pumps, Operation and Maintenance (3)
3 hours lecture
Recommended preparation: *WTE/WWT 50*
Note: *Cross listed as WTE 66*
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 97 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Topics in Wastewater Technology Education. See Class Schedule for specific topic offered. Course title will designate subject covered.

Water Technology Education (WTE)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-135

Associate in Science Degrees -
AS 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

Provide comprehensive education to a diverse constituency for a career in the water and wastewater field that prepares students to contribute effectively in a profession responsible for protecting public health.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
WTE/WWT 50	Waterworks Mathematics	3
WTE 52	Waterworks Distribution	3
WTE 54	Water Treatment Plant Operation I	3
WTE/WWT 56	Instrumentation and Controls	3
WTE/ PWM/ WWT 60	Supervision	3
WTE 64	Water Quality Monitoring	3
WTE/WWT 66	Motors and Pumps, Operation and Maintenance	3
Electives (Select 9 units)		
WTE/WWT 58	Backflow Prevention	3
WTE/WWT 62	Cross Connection Specialist	3
WTE 72	Waterworks Distribution II	3
WTE 74	Water Treatment Plant Operation II	3
WTE 97	Water Technology Education Topics	0.5 - 4
* 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 50 Waterworks Mathematics (3)
3 hours lecture
Note: *Cross listed as WWT 50*
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 52 Waterworks Distribution (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 50*
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 54 Water Treatment Plant Operation I (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 50*
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 amendments; basic water chemistry; source water assessment; conventional treatment processes; treated water stability; waterborne diseases; public health protection; disinfection; 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 56 Instrumentation and Controls (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE/WWT 50*
Note: *Cross listed as WWT 56*
Introduction to basic electrical theory, applications, common uses, and real world examples of control systems and instrumentation used in water distribution, water and wastewater treatment plants; including switches, relays, alarms, motors, instrumentation, valve actuators, computers, and communication.

WTE 58 Backflow Prevention (3)
2½ hours lecture - 1½ hours laboratory
Note: *Cross listed as WWT 58*
Provides intensive training focused on the field testing procedure for backflow prevention devices and training in the recognition and abatement of cross connections in water and plumbing systems. Students will acquire the knowledge, skills, and abilities required to test as a certified backflow tester.

WTE 60 Supervision (3)
3 hours lecture
Note: *Cross listed as PWM/WWT 60*
Supervisory aspects of public agencies including organization, decision making, coordination, communication, and public relations. Personnel supervision including coaching, training, evaluation, discipline, team building, morale, and grievances. Safety programs and encouraging safe conditions, actions and attitudes.

WTE 62 Cross Connection Specialist (3)
3 hours lecture
Recommended preparation: *WTE/WWT 58*
Note: *Cross listed as WWT 62*
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 the American Water Works Association.

WTE 64 Water Quality Monitoring (3)
2½ hours lecture - 1½ hours laboratory
Recommended preparation: *WTE /WWT 50*
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 66 Motors and Pumps, Operation and Maintenance (3)
3 hours lecture
Recommended preparation: *WTE/WWT 50*
Note: *Cross listed as WWT 66*
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 72 Waterworks Distribution II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE 52*
Intermediate and advanced instruction in the field of water distribution, 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 74 Water Treatment Plant Operation II (3)
3 hours lecture
Prerequisite: *A minimum grade of 'C' in WTE 54*
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 97 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
Topics in Water Technology Education. See Class Schedule for specific topic offered. Course title will designate subject covered.

Web

See CSIT - Web Technology

Welding (WELD)

Contact the Trade and Industry Department for further information.
(760) 744-1150, ext. 2545
Office: T-102A

Associate in Science Degrees -

AS 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.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
WELD 100	Welding I	3
WELD 105	Metal Cutting, Brazing, Soldering	3
WELD/ IT 108	Technical Mathematics	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 140	Qualification of Welders	3
WELD 145	Pipe Welding	3
WELD 150	Welding Inspection	3
WELD 160	Metal Layout for Fabrication	3
TOTAL UNITS		**33**

COURSE OFFERINGS

WELD 100 Welding I (3)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Cutting metals with oxyfuel, plasma, carbon, and air arc gouging. Joining metals using oxyfuel welding, brazing, and soldering.

WELD 108 Technical Mathematics (3)
3 hours lecture
Note: *Cross listed as IT 108*
Transfer acceptability: *CSU*
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)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
Welding steel plate in all positions using the Shielded Metal Arc Welding process.

WELD 115 Gas Tungsten Arc Welding (3)
1½ hours lecture - 4½ hours laboratory
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)
1½ hours lecture - 4½ hours laboratory
Prerequisite: *A minimum grade of 'C' in WELD 115*
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 117 Geometric Dimensioning and Tolerancing (2)
1 hour lecture - 3 hours laboratory
Note: *Cross listed as DT/ENGR 117*
Transfer acceptability: *CSU*
An introduction to geometric dimensioning and tolerancing ASME Y14.5-2009. Students will learn to identify, use appropriate geometric symbols and techniques of geometric dimension, and produce industrial quality drawings. Students will also learn to measure and verify geometric dimensions and tolerances of manufactured items.

WELD 120 Gas Metal Arc and Flux Cored Arc Welding (3)
1½ hours lecture - 4½ hours laboratory
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 135 Print Reading for Welders (3)
3 hours lecture
Transfer acceptability: *CSU*
Line interpretation, sketching, bill of materials, structural shapes, welding symbols, joint types, weld types, and metric conversions.

WELD 136 Welding Symbols (3)
3 hours lecture
Transfer acceptability: *CSU*
Complete description and identification of welding symbols used in the welding and fabrication industry.

WELD 140 Qualification of Welders (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: *CSU*
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 (3)
1½ hours lecture - 4½ hours laboratory
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)
3 hours lecture
Transfer acceptability: *CSU*
Designed to improve understanding of the role, duties, and technical requirements of welding inspectors. The course will cover topics in 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. Provides knowledge useful for passing the American Welding Society's Certified Welding Inspector's exam.

WELD 151 CAD/CAM Machining (3)
1½ hours lecture - 4½ hours laboratory
Note: *Cross listed as DT/ENGR 151*
Transfer acceptability: *CSU*
Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

WELD 160 Metal Layout for Fabrication (3)
2 hours lecture - 3 hours laboratory
Transfer acceptability: *CSU*
Provides students with knowledge of basic layout, fitup, fabrication, and 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 165 Visual Inspection Level I (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Teaches visual inspection of welds, the equipment used during visual inspection, proper inspection procedure, and common discontinuities in the surface of a weld.

WELD 166 Visual Inspection Level II (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Teaches level II visual inspection of welds, the equipment used during visual inspection, proper inspection procedure, and common discontinuities in the surface of a weld.

WELD 167 Visual Inspection Level III (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Advanced studies in visual equipment, methods, and evaluation.

WELD 170 Liquid Penetrant Testing Level I (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides training in the principle of liquid penetrant testing. Topics include discussion and demonstration of processing, testing methods, and equipment for Level I.

WELD 171 Liquid Penetrant Testing Level II (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides training in the selection of the appropriate testing method and evaluations of indications.

WELD 172 Liquid Penetrant Testing Level III (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Advanced training in liquid penetrant testing. Topics will include how penetrant works; the differences between liquid testing methods; the equipment used; and interpretation/evaluation of discontinuities.

WELD 175 Magnetic Particle Testing Level I (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Principles of magnets and magnetic fields and laws of magnetism and their effects on discontinuities. Methods of Magnetic Particle Inspection and types of discontinuities will be taught.

WELD 176 Magnetic Particle Testing Level II (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides theory lectures and practical training on magnetic particle testing, performing calibrations, measuring samples, and performing non-destructive testing using magnetic particle theory. Encourages group discussions around practical problems and provides field expertise on how to resolve them. Meets or exceeds requirements for ASNT Magnetic Particle Testing Level II.

WELD 177 Magnetic Particle Testing Level III (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides basic knowledge into how to effectively perform magnetic particle inspection. Emphasis is placed on the properties of electricity and magnetism, understanding longitudinal and circular magnetism, use of central conductor, coil and direct magnetization equipment, and the use of yokes and prods. In addition to covering the theoretical aspects of this method, provides demonstrations and practical hands-on laboratory time on both portable and stationary equipment. Meets or exceeds ASNT Magnetic Particle testing Level III.

WELD 180 Ultrasonic Testing Level I (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides knowledge and skills in the setup, calibration, and inspection of materials using ultrasonic testing equipment. Fundamental concepts and terminology of ultrasonics and mathematical relationships that exist between them. Meets or exceeds the content recommended by the American Society for Nondestructive Testing for Level I.

WELD 181 Ultrasonic Testing Level II (1,2)
½ or 1 hour lecture – 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides knowledge and skills in the setup, calibration, and inspection of materials using ultrasonic testing equipment. Fundamental concepts and terminology of ultrasonics and mathematical relationships that exist between them. Meets or exceeds the content recommended by the American Society for Nondesructive Testing for Level II.

WELD 182 Ultrasonic Testing Level III (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Advanced topics and training in ultrasonic testing of materials.

WELD 183 Ultrasonic Phased Array Inspection Level I (1, 2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides training in advanced ultrasonic inspection of welds using straight-beam, angle-beam, and phased array ultrasonic testing.

WELD 184 Ultrasonic Phased Array Inspection Level II (1-2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides training in advanced ultrasonic inspection of welds using straight-beam, angle-beam, and phased array ultrasonic testing.

WELD 185 Ultrasonic Phased Array Inspection Level III (1-2)
½ or 1 hour lecture - 2 or 3 hours laboratory
Transfer acceptability: *CSU*
Provides training in advanced ultrasonic inspection of welds using straight-beam, angle-beam, and phased array ultrasonic testing.

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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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. 2329
Office: MD-241

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
SOC 135	Gender and Society	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 General Zoology (Lecture) (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 General Zoology (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 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 or 203*
Transfer acceptability: *CSU; UC – ZOO 145/145L and BIOL 106 or BIOL 105 combined: maximum credit, 4 units; UC – No credit for ZOO 145/145L if taken after ZOO 203, 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 or 203.

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 or BIOL 105 combined: maximum credit, 4 units; UC – No credit for ZOO 145/145L if taken after ZOO 203, 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 or 203.

ZOO 195D Field Study of Birds (1, 1.5, 2, 2.5, 3)
½-1 hours lecture - 1½-7½ hours laboratory
Note: *Fee charged*
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 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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.
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
Recommended Preparation: *BIOL 100 ; or BIOL 101 and BIOL 101L ; or BIOL 102; or BIOL 105; or BIOL 200*
Transfer acceptability: *CSU; UC*
C-ID BIOL 110B
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 ZOO 200*
Transfer acceptability: *CSU; UC*
C-ID BIOL 120B
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*
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.