

## Accounting (ACCT)

### See also Business Education

Contact the Business Education Department for further information, (760) 744-1150, ext. 2488.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

### PROGRAMS OF STUDY

#### Accounting

Equips students with the skills necessary for employment as a full-charge bookkeeper or an accounting technician.

#### A.A. Degree Major or Certificate of Achievement

Program Requirements	Units
ACCT 103 Financial Accounting	4
ACCT 104 Acct Electronic Spreadsheet Lab	1
ACCT 105 and Income Tax	3
ACCT 106 or State Income	1
ACCT 107 Taxation of Business Entities	4
ACCT 108 Managerial Accounting	4
ACCT 110 QuickBooks	2
ACCT 115 Sales/Payroll Tax/and Employee Benefits	2
ACCT 120 Financial Statement Analysis	3
BUS 110 Business Mathematics	3
BUS 115 Business Law	3
BUS 125 or Business English	3
BUS 205 Business Writing	3
CSIS 105 or Computer Concepts/Microcomputer	3
CSIS/RCSIS 120 Microcomputer Applications	3
<b>TOTAL UNITS</b>	<b>32</b>

Recommended Electives: BUS 100, 116, 140; OIS 101, 115; CE 100

#### Bookkeeping/Accounting Clerk

Provides a program to prepare the student for an entry-level Bookkeeping/Accounting Clerk position.

#### Certificate of Proficiency

Program Requirements	Units
ACCT 103 and Financial Accounting	4
ACCT 104 or Acct Electronic Spreadsheet Lab	1
BUS 105 Bookkeeping Fundamentals	3
ACCT 110 QuickBooks	2
ACCT 115 Sales Tax, Payroll Taxes, and Employee Benefits	2
<b>TOTAL UNITS</b>	<b>7 - 9</b>

### COURSE OFFERINGS

<b>ACCT 103 Financial Accounting</b> <i>4 hours lecture</i> <b>Corequisite:</b> ACCT 104 <b>Transfer acceptability:</b> CSU; UC; ACCT 103+104=CAN BUS 2 Financial accounting theory, principles, and procedures. Application of theory and practice to the accounting cycle and to systems design. An emphasis on both the preparer and the information user will be stressed.	<b>(4)</b>
<b>ACCT 104 Accounting Electronic Spreadsheet Laboratory</b> <i>2 hours lecture/laboratory</i> <b>Corequisite:</b> ACCT 103 <b>Transfer acceptability:</b> CSU; ACCT 103+104=CAN BUS 2 Application of fundamental spreadsheet concepts, principles, and commands in working with templates and modeling problems in accounting principles.	<b>(1)</b>
<b>ACCT 105 Income Tax</b> <i>3 hours lecture</i> <b>Transfer acceptability:</b> CSU Instruction on income tax legislation and procedure, income tax	<b>(3)</b>

problems, and practice in completing forms as required by the Internal Revenue Service.

#### ACCT 106 State Income Tax **(1)**

*1 hour lecture*

**Prerequisite:** Completion of, or concurrent enrollment in, ACCT 105

**Transfer acceptability:** CSU

A study of the major differences between the State and Federal income tax regulations.

#### ACCT 107 Taxation of Business Entities **(4)**

*4 hours lecture*

**Transfer acceptability:** CSU

Taxation from a business entities approach including business deductions, losses, property transactions, and tax credits. Topics will include rules related to corporations, partnerships, and S corporations.

#### ACCT 108 Managerial Accounting **(4)**

*4 hours lecture*

**Prerequisite:** ACCT 103

**Transfer acceptability:** CSU; UC; CAN BUS 4

Accounting theory, principles, and procedures for financial statement analysis, decentralized operations, cost concepts, cost accounting, budgeting, standard costing, cost-profit-volume analysis, accounting control, differential analysis, capital budgeting, variable and absorption costing, responsibility accounting, capital investment analysis, and income taxes.

#### ACCT 110 QuickBooks **(2)**

*4 hours lecture/laboratory*

**Prerequisite:** ACCT 103 or 203, or BUS 105

**Transfer acceptability:** CSU

Applying the computer in the study of accounting principles with emphasis on planning and analysis. Students prepare data and enter accounting transactions, which are used as input for QuickBooks Pro in order to yield the various accounting statements as output.

#### ACCT 115 Sales Tax, Payroll Taxes, and Employee Benefits **(2)**

*2 hours lecture*

**Transfer acceptability:** CSU

Provides the students with 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:** ACCT 103

**Transfer acceptability:** CSU

Exploration of the characteristics of financial statements and analysis of reported results from such statements. How to apply ratios to financial statements and to interpret outcomes in order to draw various inferences and/or conclusions from the results.

#### ACCT 197 Accounting Topics **(.5-4)**

*Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.*

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

Topics in Accounting. See Class Schedule for specific topic offered. Course title will designate subject covered.

#### ACCT 203 Survey of Accounting **(4)**

*4 hours lecture*

**Corequisite:** ACCT 204

**Transfer acceptability:** CSU

Introduction to the core primary accounting areas: financial, managerial, taxation, auditing, and accounting information systems. Each area is introduced in terms of its background, conceptual basis, and application in the business environment.

**ACCT 204 Financial/Managerial Accounting Spreadsheet Lab (1)**

2 hours lecture/laboratory

**Corequisite:** ACCT 203

**Transfer acceptability:** CSU

Application of fundamental spreadsheet concepts, principles, and commands in working with templates and modeling problems in financial and managerial accounting problems.

**ACCT 205 Cost Accounting (3)**

3 hours lecture

**Prerequisite:** ACCT 108

**Transfer acceptability:** CSU

A study of the fundamental principles of cost accounting, including the elements of production costs, cost estimations, byproducts and joint products, spoilage and scrap materials, and systems of cost distribution such as standard cost, job order, and process flow.

50, (3) possess a valid driver's license, (4) pass written, oral and physical fitness examinations, (5) pass a medical examination, (6) be 18 years old, and (7) pass Department of Justice clearance.

In addition to passing the required college examinations, the student must obtain passing scores on each P.O.S.T. Learning Domain Examination, and all skills/lab portions of the Academy.

Each block must be completed in sequential order within the same Academy.

**Certificate of Achievement**

Program Requirements	Units
AJ 90 Basic Police Academy I	20
AJ 91 Basic Police Academy II	18.5
AJ 92 Basic Police Academy III	19
<b>TOTAL UNITS</b>	<b>57.5</b>

**Administration of Justice (AJ)**

Contact Public Safety Programs for further information, (760) 744-1150, ext. 1722. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

**PROGRAMS OF STUDY**

**Administration of Justice—Law Enforcement**

**A.A. Degree Major**

Program Requirements	Units
AJ 100 Introduction to Criminal Justice	3
AJ 101 Criminal Evidence	3
AJ 102 Criminal Procedures	3
AJ 103 Community Relations	3
AJ 104 Criminal Law	3
AJ 110 Basic Criminal Investigation	3
AJ 115 Patrol Procedures	3
AJ 131 Juvenile Justice	3
AJ 180 Criminology	3
CE 100 Cooperative Education	3
<b>Electives (Select 6 units)</b>	
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 72 Police Academy Orientation and Leadership	3
AJ 97 Topics in Administration of Justice	.5-20
AJ 135 Traffic Control	3
AJ 140 C J/21 <sup>st</sup> Century-Field Study	2.5
AJ 175 Narcotics	3
AJ 197 Topics in Administration of Justice	.5-6
AJ 210 Basic Crime Scene Forensic Science	3
AJ 211 Fingerprint Identification	3
AJ 296 Special Projects	1,2,3
<b>TOTAL UNITS</b>	<b>36</b>

**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

**COURSE OFFERINGS**

Courses numbered under 100 are not intended for transfer credit.

**AJ 50 POST Perishable Skills (.5)**

1 ½ 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:** Credit/No Credit grading only; may be taken 4 times

A POST-approved perishable skills course for active full time peace officers or active reserve peace officers that are currently employed by a law enforcement agency. This course covers tactical firearms, driver training/awareness, arrest and control, tactical communications, and interpersonal communication skills. This course meets the POST Continuing Professional Training (CPT) requirements.

**AJ 51 First Aid/CPR Update (.5)**

½ hour lecture

**Prerequisite:** Must be an active full time peace officer or active reserve peace officer and currently employed by a law enforcement agency.

**Note:** Credit/No Credit grading only; may be taken 4 times

A POST-approved perishable skills course for active full time peace officers or active reserve peace officers that are currently employed by a law enforcement agency. This course is an overview of emergency medical care terminology and procedures required for peace officers when responding to victims where assessment of treatment and possible basic life support maneuvers will be required.

**AJ 52 Racial Profiling (.5)**

½ hour lecture

**Prerequisite:** Must be an active full time peace officer or active reserve peace officer and currently employed by a law enforcement agency

**Note:** Credit/No Credit grading only; may be taken 4 times

A POST-approved course for active full time peace officers or active reserve peace officers that are currently employed by a law enforcement agency. This course clarifies what constitutes racial profiling, conceptually and legally.

**AJ 53 Instructor Development (2.5)**

2 ½ 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:** Credit/No Credit grading only; may be taken 4 times

A POST-approved course that is designed to develop competency in the following areas: role and responsibility of the basic course instructor, adult learning principles, lesson planning, presentation skills, facilitation skills, learning resources and evaluation methods. This program consists of 40 hours of instruction and competency demonstration.

- AJ 65 Preparation for Law Enforcement (3)**  
*3 hours lecture*  
**Note:** Credit/No Credit grading only  
 This course will provide an educational overview of the hiring process of law enforcement agencies and prepare the serious candidate for law enforcement employment to successfully complete the pre-employment testing and screening process. It will take the student from the written test all the way through to the oral interview.
- AJ 72 Police Academy Orientation and Leadership (3)**  
*3 hours lecture*  
**Note:** Credit/No Credit grading only  
 The development of critical thinking and physical fitness skills that lead to successful completion of the Police Academy program.
- AJ 75 Spanish for Law Enforcement (3)**  
*3 hours lecture*  
 Basic conversational Spanish with emphasis on law enforcement situations.
- AJ 80 Vehicle Operations (1)**  
*2 hours lecture/laboratory*  
 Students will learn how to prevent vehicle collisions; basic defensive driving principles and techniques in order to develop safe driving habits. The successful student will become proficient in the actual operation of the vehicle, and knowledgeable about the dynamic forces at work.
- AJ 82 First Aid for Law Enforcement (1.5)**  
*1 ½ hours lecture*  
 An overview of emergency medical care terminology and procedures required for peace officers when responding to victims where assessment of immediate condition, appropriate first aid treatment and possible basic life support maneuvers will be required.
- AJ 90 Basic Police Academy I (20)**  
*18.5 hours lecture; 4.5 hours laboratory*  
**Note:** May not be taken for Credit/No Credit Grading. May be taken 4 times.  
 Block 1 of the Basic Police Academy Certificate of Achievement is a series of major objectives which when combined satisfy mandated training requirements for California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.
- AJ 91 Basic Police Academy II (18.5)**  
*15.5 hours lecture; 9 hours laboratory*  
**Prerequisite:** Successful completion of AJ 90 with "C" or better.  
**Note:** May not be taken for Credit/No Credit Grading. May be taken 4 times.  
 Block 2 of the Basic Police Academy Certificate of Achievement is a continuation in a series of major objectives which when combined satisfy mandated training requirements for California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.
- AJ 92 Basic Police Academy III (19)**  
*16 hours lecture; 9 hours laboratory*  
**Prerequisite:** Successful completion of AJ 91 with "C" or better.  
**Note:** May not be taken for Credit/No Credit Grading. May be taken 4 times.  
 Block 3 of the Basic Police Academy Certificate of Achievement is the culmination of a series of major objectives which when combined satisfy mandated training requirements for California Basic Peace Officers Standards and Training (P.O.S.T.) certificate. The program is certified and prepares the student for work as a law enforcement officer in the State of California.
- AJ 97 Topics in Administration of Justice .5 - 20**  
*Unites awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory or lecture/laboratory may be scheduled by the department. Refer to class schedule.*  
**Note:** May not be taken for Credit/No Credit Grading. May be taken 4 times.
- Topics in Administration of Justice. See Class Schedule for specific topic offered. Course title will designate subject covered.
- AJ 100 Introduction to Criminal Justice (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU; UC; CAN AJ 2  
 A comprehensive overview of the American Criminal Justice System. History, theories, and philosophy of the three parts of the criminal justice system including law enforcement, courts, and corrections. Relevant sociological and economic issues, past and present, will be addressed.
- AJ 101 Criminal Evidence (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU  
 The kinds and degrees of evidence and the rules governing the admissibility of evidence in court.
- AJ 102 Criminal Procedures (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU  
 Review of the criminal justice system; criminal procedures from incident to final disposition; principles of constitutional, federal, and state laws as they apply to, and affect the administration of justice.
- AJ 103 Community Relations (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU; UC  
 A study of the role of law enforcement and justice system participants. The expectations and interrelationships between the various agencies and the public view/role toward establishing positive relationships. An overview of communication skills and the interaction between the criminal justice system and the multicultural society will be presented. Hate crimes, as well as prejudice, bias, and discrimination will be addressed.
- AJ 104 Criminal Law (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU; UC  
 Historical development, philosophy, and constitutional provisions of law. Definitions, classification of crimes, study of case law, and concepts of the law as a social force.
- AJ 105 Criminal Evidence and Procedures (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU  
 An overview of the criminal justice system; laws of arrest, rules of evidence, search and seizure, and juvenile procedures.
- AJ 110 Basic Criminal Investigation (3)**  
*3 hours lecture*  
**Transfer acceptability:** CSU  
 Fundamentals of investigation, search, collection and preservation of physical evidence, scientific aids, modus operandi, source of information, interviews and interrogations, and incident reporting.
- AJ 114 Report Writing (3)**  
*3 hours lecture*  
 Documentation of criminal and civil incidents. Basic crime and traffic reports will be addressed. Narrative reporting will be emphasized.
- AJ 115 Patrol Procedures (3)**  
*3 hours lecture*  
 Responsibilities, techniques, and methods of police patrol.
- AJ 117A Patrol Tactics 1 (3)**  
*3 hours lecture*  
 Specific types of circumstances encountered by patrol officers including disabled persons, gangs, controlled substances, missing persons, weapons laws, hazardous materials, and custody are included in this course.
- AJ 117B Patrol Tactics 2 (4)**  
*4 hours lecture*  
 Specific types of circumstances encountered by patrol officers including patrol methods, vehicle stops, and unusual occurrences are included in this course.

- AJ 117C Patrol Tactics 3 (3)**  
*3 hours lecture*  
 Specific types of circumstances encountered by patrol officers including crimes in progress, domestic violence, emotional situations, and disputes are included in this course.
- AJ 117D Patrol Tactics 4 (2)**  
*1 hour lecture-2 hours lecture/laboratory*  
 Scenarios depicting circumstances encountered by patrol officers will be performed by students in an examination atmosphere and then debriefed by students and staff.
- AJ 118A Basic Firearms (2)**  
*1 hour lecture-2 hours lecture/laboratory*  
 Principles of firearm safety, ballistics, and legal aspects of weapons. Fundamentals of marksmanship. Proficiency with revolver, pistol, and shotgun will be required.
- AJ 118B Tactical Firearms (1)**  
*2 hour lecture/laboratory*  
 Fundamentals of firearms as they pertain to law enforcement activities. Tactical usage and marksmanship will be stressed. Use of chemical agents will also be included.
- AJ 119A Law Enforcement Procedures Review 1 (.5)**  
*1 hour lecture/laboratory*  
 Review of criminal procedures as they are applied by the police officer.
- AJ 119B Law Enforcement Procedures Review 2 (.5)**  
*1 hour lecture/laboratory*  
 Review of criminal laws as they are applied by the police officer.
- AJ 119C Law Enforcement Procedures Review 3 (.5)**  
*1 hour lecture/laboratory*  
 Review of enforcement procedures as applied by the police officer.
- AJ 120 Defensive Tactics (3)**  
*6 hours lecture/laboratory*  
 Protection against persons armed with dangerous weapons; demonstration and drill in a limited number of holds and come-alongs; restraint of prisoners and the mentally ill; moral obligations; and fundamental use of the baton.
- AJ 122 Police Fitness (1)**  
*2 hours lecture/laboratory*  
 Life-long fitness techniques involving aerobic, strength, and flexibility programs will be emphasized.
- AJ 131 Juvenile Justice (3)**  
*3 hours lecture*  
 The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures. Includes youth subcultures and delinquency and the varied philosophies underlying their existence.
- AJ 135 Traffic Control (3)**  
*3 hours lecture*  
 Traffic law enforcement; traffic control; fundamentals of traffic accident investigation; California Vehicle Code.
- AJ 140 Criminal Justice in the 21<sup>st</sup> Century– Field Study (2.5)**  
*5 hours lecture/laboratory*  
 This course will be a study of local, state and federal courts, correctional institutions and law enforcement departments. Knowledge will be obtained by site visitations, personal interviews and tours.
- AJ 141 Enforcement Psychology (3)**  
*3 hours lecture*  
 Designed to assist the peace officer's understanding of the psychological dilemma of law enforcement. Victimology, diversity, politics, and the tactical aspect of the criminal justice system will be evaluated from a psychological perspective.
- AJ 175 Narcotics (3)**  
*3 hours lecture*  
 A survey of laws and specific characteristics pertaining to hallucinogens, narcotics, marijuana, alcohol, and poisonous substances. It is designed to give the student conceptual insight into contemporary problems of vice, drugs, and legal social issues related to dangerous drugs.
- AJ 180 Criminology (3)**  
*3 hours lecture*  
**Transfer acceptability: CSU**  
 A general study of crime, the science of crime and criminal behavior, the forms of criminal behavior and the causes of crime. Crime theories and sociological causes of crime, types of crime, and issues of criminal behavior will also be addressed.
- AJ 197 Topics in Administration of Justice (.5-6)**  
*Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.*  
**Note: May be taken 4 times**  
**Transfer acceptability: CSU**  
 Topics in Administration of Justice. See Class Schedule for specific topic offered. Course title will designate subject covered.
- AJ 210 Basic Crime Scene Forensic Science (3)**  
*3 hours lecture*  
 Introduces various specialized disciplines including the crime lab functions, forensic instrumentation, forensic photography, crime scene processing, drug analysis, hair and fiber analysis, questioned documents, and fingerprint usage.
- AJ 211 Fingerprint Identification (3)**  
*3 hours lecture*  
 This course reviews the history and application of fingerprinting for personal identification including recognition of patterns and classification of fingerprints. The student will also experience practical problems involving locating, developing, lifting and photographing latent prints. Courtroom testimony and exhibits will also be covered.
- AJ 212 Forensic Photography (3)**  
*3 hours lecture*  
 Techniques utilized in police photography are outlined and explored including crime scene and traffic collision photography, macro photography, microphotography, black/white and color photography, and photography equipment. Also discussed are topics such as low light or existing light photography, high speed film shooting, use of alternative light sources in photography, aerial photography, video recording, and presentation of photographic exemplars in court or trial.

## Aeronautical Sciences (AERO)

Contact the Earth Sciences Department for further information, (760) 744-1150, ext. 2512. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

### PROGRAMS OF STUDY

#### Aeronautical Operations and Management

For students interested in the business or piloting aspects of aviation. Transfers to some four-year programs in this field.

#### A.A. Degree Major or Certificate of Achievement

Program Requirements	Units
AERO 100 Introduction to Aeronautical Sciences	3
AERO 105 Basic Pilot Ground School	3

AERO 115	Air Traffic Control	3	given credit (no grade). Flight training is to be completed off campus
AERO 120	Aviation Weather	3	with an F.A.A. certified flight instructor of the student's choice and at
BUS 205	Business Writing	3	the student's own expense. The Palomar Community College District
ECON 101	Principles of Economics (Macro)	3	accepts no responsibility or liability for the flight training obtained
ECON 102	Principles of Economics (Micro)	3	from private instructors. The student should register for this course
			in the semester during which the training is to be completed.
<b>Elective Courses (Select 15 units minimum)</b>			
ACCT 103 and	Financial Accounting	4	<b>AERO 80 Instrument Rating Certification (2)</b>
ACCT 104	Acct Electronic Spreadsheet Lab	1	<i>Note: Credit/No Credit grading only</i>
AERO 106	Commercial Pilot Ground School	3	Upon presentation of an Instrument Rating, the student will be given
AERO 107	Instrument Pilot Ground School	3	credit (no grade). Flight training is to be completed off campus with
AERO 108	Flight Instructor Ground School	3	an F.A.A. certified flight instructor of the student's choice and at the
AERO 125	Instrument Simulator Lab	1.5	student's own expense. The Palomar Community College District
AERO 150	Airport Management	3	accepts no responsibility or liability for the flight training obtained
AERO 205	Principles of Aerodynamics	3	from private instructors. The student should register for this course
AERO 210	Aviation Safety and Accident Investigation	3	in the semester during which the training is to be completed.
AERO 260	ATP/Dispatcher Ground School	3	
BUS 155	Marketing	3	<b>AERO 85 Commercial Pilot Certification (3)</b>
BUS 115	Business Law	3	<i>Note: Credit/No Credit grading only</i>
BMGT 110	Human Resource Management	3	Upon presentation of a Commercial Pilot Certificate, the student will
BMGT 115	Organizational Theory and Design	3	be given credit (no grade). Flight training is to be completed off
CE 100	Cooperative Education	1,2,3,4	campus with an F.A.A. certified flight instructor of the student's
CSIS 105	Computer Concepts/Microcomputer Apps.	3	choice and at the student's own expense. The Palomar Community
GEOG 110	Meteorology: Weather and Climate	3	College District accepts no responsibility or liability for the flight
MATH 115	Trigonometry	3	training obtained from private instructors. The student should
MATH 120	Elementary Statistics	3	register for this course in the semester during which the training is
PHYS 120	General Physics	4	to be completed.
PHYS 121	General Physics	4	
<b>TOTAL UNITS</b>		<b>36</b>	<b>AERO 90 Multi-Engine Rating Certification (1)</b>

Flight training is the sole responsibility of each student and is contracted with an F.A.A. approved flight school at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the student's flight training program.

### Aircraft Commercial Pilot

Prepares students for employment as commercial pilots in air taxi and other field-related flying operations. Transfers to some four-year programs in this field.

#### A.A. Degree Major or Certificate of Achievement

Program Requirements	Units	
AERO 75	Private Pilot Certification	2
AERO 80	Instrument Rating Certification	2
AERO 85	Commercial Pilot Certification	3
AERO 100	Introduction to Aeronautical Sciences	3
AERO 105	Basic Pilot Ground School	3
AERO 106	Commercial Pilot Ground School	3
AERO 107	Instrument Pilot Ground School	3
AERO 110	Basic Pilot Flight Procedures	2
AERO 115	Air Traffic Control	3
AERO 120	Aviation Weather	3
AERO 125	Instrument Simulator Laboratory	1.5
AERO 140	Aviation Math/ Modern Navigation	3
AERO 205	Principles of Aerodynamics	3
AERO 210	Aviation Safety and Accident Investigation	3
AERO 215	Complex Aircraft Systems and Propulsion	3
<b>TOTAL UNITS</b>		<b>40.5</b>

Recommended Electives: AERO 108, 150, 260; BUS 205; GEOG 110

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.

#### **AERO 75 Private Pilot Certification (2)**

*Note: Credit/No Credit 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.

#### **AERO 80 Instrument Rating Certification (2)**

*Note: Credit/No Credit 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.

#### **AERO 85 Commercial Pilot Certification (3)**

*Note: Credit/No Credit 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.

#### **AERO 90 Multi-Engine Rating Certification (1)**

*Note: Credit/No Credit grading only*

Upon presentation of a Multi-Engine 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.

#### **AERO 100 Introduction to Aeronautical 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.

#### **AERO 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.

#### **AERO 106 Commercial Pilot Ground School (3)**

*3 hours lecture*

*Prerequisite: Private Pilot Certificate or AERO 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.

#### **AERO 107 Instrument Pilot Ground School (3)**

*3 hours lecture*

*Prerequisite: Private Pilot Certificate or AERO 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.

**AERO 108 Flight Instructor Ground School (3)**  
 3 hours lecture  
*Prerequisite:* AERO 106 and 107  
*Transfer acceptability:* CSU  
 Learning characteristics, teaching techniques, student evaluation, instructor duties/responsibilities, and all private and commercial pilot maneuvers. Prepares the student for the Federal Aviation Administration's written and practical tests for flight instructor-airplane.

**AERO 110 Basic Pilot Flight Procedures (2)**  
 2 hours lecture  
*Prerequisite:* Completion of, or concurrent enrollment in, AERO 105  
*Transfer acceptability:* CSU  
 A classroom study of procedures required for the private pilot practical test. Includes discussion of cross-country flight planning, radio navigation, communication procedures, controlled airspace, and airport operations.

**AERO 115 Air Traffic Control (3)**  
 3 hours lecture  
*Prerequisite:* AERO 105  
*Transfer acceptability:* CSU  
 The national airspace system and the handling of air traffic within this area. Emphasis is placed on the operation of Federal Aviation Administration controlling agencies.

**AERO 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.

**AERO 125 Instrument Simulator Laboratory (1.5)**  
 1 hour lecture-2 hours laboratory  
*Prerequisite:* Private Pilot Certificate  
*Note:* May be taken 3 times for increased proficiency by utilizing more advanced lesson plans and taped lesson plans in the lab.  
*Transfer acceptability:* CSU  
 Instrument flight including VOR navigation, holding patterns, and ILS, LOC, NDB, and VOR approaches through use of a ground trainer.

**AERO 140 Aviation Mathematics and Modern Navigation Systems (3)**  
 3 hours lecture  
*Transfer acceptability:* CSU  
 The nature and properties of numbers and arithmetic operations utilizing the flight computer for improvement in operational efficiency and applications involving all forms of air navigation. Basic principles of modern navigation systems such as Loran, INS/IRS, R-NAV, TCAS, GPWS, Flight Directors, and GPS will be examined.

**AERO 150 Airport Management (3)**  
 3 hours lecture  
*Transfer acceptability:* CSU  
 Airports and their management. Planning, finance, economics, operation, maintenance, and public relations will be discussed as well as current topics.

**AERO 197 Aeronautical Sciences Topics (.5-4)**  
*Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.*  
*Note:* May be taken 4 times.  
 Topics in Aeronautical Sciences. See class schedule for specific topic covered. Course title will designate subject covered.

**AERO 205 Principles of Aerodynamics (3)**  
 3 hours lecture  
*Transfer acceptability:* CSU  
 Introduction to the theory of flight; applications of the basic laws of physics to the principles of flight. Aircraft design is considered with respect to airfoils, wings, viscous effects, propellers, and aircraft performance.

**AERO 210 Aviation Safety and Accident Investigation (3)**  
 3 hours lecture  
*Prerequisite:* AERO 105 or Private Pilot Certificate  
*Transfer acceptability:* CSU  
 Accident prevention principles through a study of recent mishaps. Pilot physical and psychological factors and their role in mishaps. A study of crash survival and post-crash survival techniques. Fundamentals of mishap investigation and reporting.

**AERO 215 Complex Aircraft Systems and Propulsion (3)**  
 3 hours lecture  
*Prerequisite:* AERO 105 or Private Pilot Certificate  
*Transfer acceptability:* CSU  
 Turbochargers, turboprop and turbojet engines and their operation. Electrical, pressurization, hydraulic, and fuel systems will be examined.

**AERO 260 ATP/Dispatcher Ground School (3)**  
 3 hours lecture  
*Prerequisite:* Commercial Pilot Certificate  
*Transfer acceptability:* CSU  
 Federal Aviation Regulations, aerodynamics, performance, flight procedures, aviation weather, and aeromedical factors as they apply to the operation and dispatch of air carrier transport aircraft. Prepares the student for the Federal Aviation Administration's Airline Transport Pilot or Dispatcher written/knowledge examination.

**AERO 295 Directed Study in Aeronautical Sciences (1,2,3)**  
 3, 6, or 9 hours field work  
*Prerequisite:* AERO 100 and approval of project proposal  
*Note:* May be taken 4 times  
 Individual study in field or library within the field of air transportation.

## Africana Studies (AS)

**See also Multicultural Studies**  
 Contact the Multicultural Studies Department for further information, (760) 744-1150, ext. 2206. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

### PROGRAM OF STUDY

#### Africana Studies

Provides background for upper division course work in Africana Studies and a complementary base for students interested in many areas and professions including: Business Administration, Child Development, Law Enforcement, General Studies, Journalism, Liberal Arts and Sciences, Nursing, Radio and Television.

#### Certificate of Proficiency

Program Requirements	Units
AS 100 Intro/Hist Legacy/Africana	3
AS 115 Intro/Comparative Africana Lit	3
AS 116 Intro Literature/Arts Africana	3
AS 120 Africana Social Institutions	3
AS 125 Africana People/World Politics	3
<b>TOTAL UNITS</b>	<b>15</b>

### COURSE OFFERINGS

**AS 100 Introduction to the Historical Legacy of Africana Peoples (3)**  
 3 hours lecture  
*Transfer acceptability:* CSU; UC  
 The ancient and modern histories and civilizations of Africana peoples. An emphasis on the Africana presence and impact on global historical processes.

**AS 101 African-American History I (3)**

3 hours lecture

**Note:** This course plus AS 102 meets the State requirement in American History and Institutions.

**Transfer acceptability:** CSU; UC - maximum credit for one pair: AS 101-102 or HIST 101-102

African-Americans in the history of the United States from Africa through Reconstruction with particular emphasis on the trans-Atlantic slave trade; the colonial period; the Revolution; constitutional development; development of the plantation system, slavery on and off the plantation; the free Negro in the North and South; westward expansion and frontier influences; emergence of sectionalism, the anti-slavery movement; impact of, and contributions to, the Civil War; Reconstruction and post-war adjustments; Black leadership; and the antebellum legacy.

**AS 102 African-American History II (3)**

3 hours lecture

**Note:** This course plus AS 101 meets the State requirement in American History and Institutions.

**Transfer acceptability:** CSU; UC - maximum credit for one pair: AS 101-102 or HIST 101-102

Cultural, economic, and political development of African-Americans in the United States since Reconstruction. Emphases on post-Civil War difficulties; the Westward Movement; expressions of cultural identity; industrial development; impact of World Wars I and II on urbanization and social mobility; expansion of government activity; Civil Rights Era and modern militancy; Black leadership, and the United States as a world power.

**AS 110 The Black and the United States Political System (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC - maximum credit for one course: AS 110, AIS 102, CS 102

Surveys the role of Black people in the United States political system and institutions. Examines the structure and functions of the American political system in relation to issues which affect the American people as a whole and minority groups in particular. A description and analysis of Federal, State, and local government organizations as they relate to the group will be emphasized.

**AS 115 Introduction to Comparative Africana Literature (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Selected literatures of Africana peoples. Examination of the principles of aesthetics, theme, philosophy and religion, and the impact of cross-cultural exchanges on the literature.

**AS 116 Introduction to the Literature and Arts of Africana Civilizations (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Continuum in the development of African and Africana literature and other arts from Ancient Africa to the present. Cross-cultural exchanges affecting artistic and literary evolution.

**AS 120 Introduction to Africana Social Institutions and Behavior (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Social institutions and their influence on the behavior of Africana peoples. Analysis of facts, principles, and concepts basic to understanding human behavior.

**AS 125 Africana Peoples and the World Political Economy (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Socio-political economic institutions and forces operative in the Africana world. Analysis of the economic and political motives based in the slave trade, colonialism, and underdevelopment.

**AS 126 Cultures of Africa (3)**

3 hours lecture

**Note:** Cross listed as ANTH 126.

**Transfer acceptability:** CSU; UC

Introduction to the indigenous peoples and cultures of Africa. Brief

prehistoric and historic background of the continent. Comparative study of traditional cultures representative of the continent's diversity. Focus on social, economic, political, religious and aesthetic life, and culture change.

## American Indian Studies (AIS)

Contact the American Indian Studies Department for further information, (760) 744-1150, ext. 2425. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

### PROGRAM OF STUDY

#### American Indian Studies

Provides cultural background and preparation to enhance employment opportunities with American Indian people.

#### Certificate of Achievement

Program Requirements	Units
AIS 130 Prehistoric Cultures of North America	3
AIS 101 or The American Indian Frontier	
AIS 102 Indian/U.S. Political System	3
AIS 100 Introduction to American Indian Studies	3
AIS 125 American Indians Today	3
<b>Electives (Consult with department prior to selection of two additional courses)</b>	
AIS 105 History of Native American Arts	3
AIS 135 California Indian Arts	3
AIS 110 History of the Plains Indian	3
AIS 115 A History of Southwest Indians	3
AIS 140 The Original Californians	3
AIS 141 Elementary Luiseño IA	3
AIS 142 Elementary Luiseño IB	3
AIS 143 Elementary Luiseño IIA	3
AIS 144 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 120 Indians of the Americas	3
AIS 145 American Indian Literature	3
AIS 150 American Indian Philosophy and Religion	3
AIS 165 Native Women in the Americas	3
AIS 175 American Indian Science and Technology	3
<b>TOTAL UNITS</b>	<b>18</b>

### COURSE OFFERINGS

**AIS 100 Introduction to American Indian Studies (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

American Indian cultures in North America are studied from early cultures to contemporary society. A cross-disciplinary approach examines applicable methods and theories from sciences and humanities.

**AIS 101 The American Indian Frontier From Colonialism Through the Present (3)**

3 hours lecture

**Note:** This course plus AIS 102 meets the State requirement in American History and Institutions.

**Transfer acceptability:** CSU; UC

The historical, economic, and cultural development of the American Indian in relation to European and American contact. Extensive use and analysis of historical sources from the colonial period through the present.

**AIS 102 The American Indian and the U.S. Political System (3)**

3 hours lecture

**Note:** This course plus AIS 101 meets the State requirement in American History and Institutions.**Transfer acceptability:** CSU; UC – maximum credit for one course: AIS 102, AIS 110, CS 102

Surveys the role of American Indian people in the U.S. political system and institutions. Includes an examination of American Indian political structures and functions from pre-contact period to contemporary as well as analysis of Federal Indian policy and leading issues and organizations that affect the American Indian community.

**AIS 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 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 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 141 Elementary Luiseño IA (3)**

3 hours lecture

**Note:** AIS 141+142 correspond to one year of high school foreign language**Transfer acceptability:** CSU; UC

An introduction to 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 142 Elementary Luiseño IB (3)**

3 hour lecture

**Note:** AIS 141+142 correspond to one year of high school foreign language**Transfer acceptability:** CSU; UC

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.

**AIS 143 Elementary Luiseño IIA (3)**

3 hours lecture

**Note:** AIS 143 + 144 correspond to two years of high school foreign language.**Transfer acceptability:** CSU; UC

Elementary grammar, review, composition, and continued oral practice.

**AIS 144 Elementary Luiseño IIB (3)**

3 hours lecture

**Note:** AIS 143 + 144 correspond to two years of high school foreign language.**Transfer acceptability:** CSU; UC

Elementary grammar, review, composition, and continued oral practice.

**AIS 145 American Indian Literature (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

A survey of historical and contemporary American Indian literature. Examines traditional and contemporary genres.

**AIS 150 American Indian Philosophy and Religion (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

The principles of American Indian philosophy and religious rites practiced prior to extensive European contacts with North American tribes, and the subsequent impact of European cultures on American Indian philosophy and religion.

**AIS 151 Elementary Cupeño IA (3)**

3 hours lecture

**Note:** AIS 151 + 152 correspond to one year of high school foreign language.**Transfer acceptability:** CSU; UC

Elementary grammar, composition, and oral practice.

**AIS 152 Elementary Cupeño IB (3)**

3 hours lecture

**Note:** AIS 151 + 152 correspond to one year of high school foreign language.**Transfer acceptability:** CSU; UC

Elementary grammar, review, composition, and continued oral practice.

**AIS 153 Elementary Cupeño IIA (3)**

3 hours lecture

**Note:** AIS 153 + 154 correspond to two years of high school foreign language.**Transfer acceptability:** CSU; UC

Elementary grammar, review, composition, and continued oral practice.

**AIS 154 Elementary Cupeño IIB (3)**

3 hours lecture

**Note:** AIS 153 + 154 correspond to two years of high school foreign language.**Transfer acceptability:** CSU; UC

Elementary grammar, review, composition, and continued oral practice.

**AIS 155 American Indian Community Development (3)**

3 hours lecture

**Note:** May be taken 4 times**Transfer acceptability:** CSU

Investigation and analysis of the relationship between the American Indian and the non-Indian in contemporary society with special emphasis on fieldwork and research to explore existing programs and to develop solutions to problems originating from these programs.

**AIS 160 American Indian Education (3)**

3 hours lecture

**Transfer acceptability:** CSU

The historical development of American Indian education. Emphasis is placed on traditional philosophies as well as American philosophies as they relate to the educational process of the American Indian.

**AIS 165 Native Women in the Americas (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Social and psychological comparison of the roles of native women in the Americas. Areas of emphasis shall include: kinship, childbearing, leadership, and religious roles. These will be examined in contemporary and traditional settings.

**AIS 170 Political/History Problems and Issues of California Indians (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Examines the political structure and functions of American Indians in California as they relate to federal, state, and local governments. Includes analysis of problems and issues relevant to California Indians through an historical, political, and economic framework.

**AIS 175 American Indian Science and Technology (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

An introductory course in the development of scientific ideas in American Indian cultures as compared to other cultures in terms of context, practitioners, and technological applications. Primary comparison is with conventional Western areas of physical, biological, and applied sciences derived from scientific methodology.

**AIS 197 American Indian Studies Topics (5-4)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times**Transfer acceptability:** CSU; UC - Credit determined by UC upon review of course syllabus.

Topics in American Indian Studies. See class schedule for specific topic covered. Course title will designate subject covered.

## American Sign Language (ASL)

Contact the Speech Communication/Forensics/ASL Department for further information, (760) 744-1150, ext. 2405

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

### PROGRAM OF STUDY

#### American Sign Language/ English Interpreter Training Program

Preparation courses (for students not already competent in signing): ASL 100, 100L, 101, 101L, 105, 205, 205L, 206, and 206L.

#### A.A. Degree Major or Certificate of Achievement

##### Program Requirements

		Units
ASL 110	Awareness of Deaf Culture	3
ASL 115	Perspective on Deafness	3
ASL 208	Interpreting as a Profession	3
ASL 210	Interpreting I	4
ASL 211	Interpreting II	4
ASL 215	Interpreting III	4
ASL 216	Interpreting IV	4
ASL 220	Specialized Settings of Interpreting	3
ASL 298	Fieldwork in Interpreting	1.5
ENG 100	English Composition	4
<b>TOTAL UNITS</b>		<b>33.5</b>

Upon successful completion of this program, students may elect to take a proficiency exam to determine eligibility for entry-level employment as ASL/English interpreters.

### COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

#### **ASL 97 Topics in American Sign Language (.5-4)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times

The course objectives will depend on the specific topic covered. A set of objectives will be developed for each topic class and included in an outline developed by the instructor.

#### **ASL 100 American Sign Language I (4)**

4 hours lecture

**Transfer acceptability:** CSU; UC

Introduction to the practice and use of American Sign Language.

#### **ASL 100L American Sign Language I (Lab) (1)**

3 hours laboratory

**Prerequisite:** Completion of, or concurrent enrollment in ASL 100**Note:** Credit/No Credit grading only; may be taken 2 times**Transfer acceptability:** CSU

Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of basic 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:** ASL 100 with a "C" or better**Transfer acceptability:** CSU; UC

Continued development in American Sign Language.

#### **ASL 101L American Sign Language II (Lab) (1)**

3 hours laboratory

**Prerequisite:** Completion of, or concurrent enrollment in ASL 101**Note:** Credit/No Credit grading only; may be taken 2 times**Transfer acceptability:** CSU

Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 101.

#### **ASL 105 Fingerspelling (3)**

3 hours lecture

**Prerequisite:** ASL 100**Note:** May be taken 2 times

**Transfer acceptability:** CSU

Introduction to the American Manual alphabet (fingerspelling), including numbers, loan signs, acronyms and abbreviations commonly used in the Deaf community. Extensive drills and practice in both expressive and receptive skills.

**ASL 110 Awareness of Deaf Culture (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

An introduction to American Deaf Culture, the history, the community, and the language. Deaf cultural values, characteristics, and dynamics will be discussed as well as issues related to minority dynamics, the double/multiple minority experience, including but not limited to, Deaf African-Americans, Deaf Latinas/Latinos, Deaf Women, Deaf gays/lesbians, Deaf-blind, Deaf senior citizens, and the multiple combinations of these. Organizations and individual perceptions of self in relation to group identity, along with political views as examined through articles, books, and videotaped interviews will be studied.

**ASL 115 Perspectives on Deafness (3)**

3 hours lecture

**Transfer acceptability:** CSU

The historical and current implications of deafness. Communication philosophies and systems, educational approaches, and varying philosophies concerning the education and communicating techniques of the Deaf.

**ASL 197 Topics in American Sign Language (.5-4)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times.

**Transfer acceptability:** CSU

Topics in American Sign Language. See class schedule for specific topic covered. Course title will designate subject covered

**ASL 205 American Sign Language III (4)**

4 hours lecture

**Prerequisite:** ASL 101 with a "C" or better

**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:** Completion of, or concurrent enrollment in ASL 205

**Note:** Credit/No Credit grading only, may be taken 2 times

**Transfer acceptability:** CSU

Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of advanced ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive and receptive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 205.

**ASL 206 American Sign Language IV (4)**

4 hours lecture

**Prerequisite:** ASL 205 with a "C" or better

**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:** Completion of, or concurrent enrollment in ASL 206

**Note:** Credit/No Credit grading only, may be taken 2 times

**Transfer acceptability:** CSU

Individualized program intended for students who wish to further improve their ASL skills. Students will utilize videotapes, software, and workbooks in the American Sign Language/English Interpreting Lab to improve comprehension of advanced ASL sentences and stories. Through the use of video recording equipment, students will have the opportunity to improve their expressive and receptive signing skills. Lab activities are designed to provide students the opportunity to practice vocabulary and syntax taught in ASL 206.

**ASL 208 Interpreting as a Profession (3)**

3 hours lecture

**Prerequisite:** 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:** ASL 110 and 206 with a "C" or better

**Recommended preparation:** ENG 100 and ASL 115

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

This course provides students with the cognitive skills necessary for interpreting between American Sign Language and English, including discourse analysis of source language messages, paraphrasing and summarizing techniques, and identification of main points. Emphasis is placed on the steps necessary to produce an equivalent target language message through translation, consecutive interpreting, and peer collaboration. Students will begin to develop the skills and knowledge necessary to become culturally sensitive, ethical, and professional interpreters. Primary language of instruction for class lectures and discussion will be ASL. Students are expected to have attained a reasonable level of competency in both ASL and English in order to have access to class lectures and participate fully in class discussions and activities, as instruction will occur in both languages.

**ASL 211 Interpreting II (4)**

4 hours lecture

**Prerequisite:** ASL 208 and ASL 210 with a "C" or better

**Recommended preparation:** ENG 100

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

This course is designed to improve student ability to perform the components involved in the process of interpreting as learned in Interpreting I. Primary emphasis is placed on the development of cognitive and linguistic skills, consecutive interpretation, and interpretation of interactive video dialogues between Deaf and hearing people. Students will begin applying skills learned to basic simultaneous interpreting tasks. Further development of language fluency in both American Sign Language (ASL) and English should occur as a result of this course, as instruction will occur in both languages.

**ASL 215 Interpreting III (4)**

4 hours lecture

**Prerequisite:** ASL 211 with a "C" or better and ASL 220

**Recommended preparation:** ENG 10

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

This course is a continuation of Interpreting II. Primary emphasis is placed on the development of simultaneous ASL/English interpreting/transliterating tasks. Further development of language fluency in both American Sign Language (ASL) and English should occur as a result of this course. Development of multi-tasking skills enables students to begin interpreting more complex discourse such as that in a higher register or of substantive cognitive-academic content. Students are expected to have attained a reasonable level of competency in both ASL and English in order to have access to class lectures and participate fully in class discussions and activities, as instruction will occur in both languages.

**ASL 216 Interpreting IV (4)**

4 hours lecture

**Prerequisite:** ASL 215 with a "C" or better

**Corequisite:** ASL 298

**Recommended preparation:** ENG 100

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

This course is a continuation of Interpreting III. Emphasis is placed on the enhancement of simultaneous ASL/English interpreting of complex discourse through increased fluency, speed and accuracy. Students will improve equivalence between source and target language while performing simultaneous interpreting and/or transliterating tasks. Students are expected to have attained a reasonable level of competency in both ASL and English in order to have access to class lectures and participate fully in class discussions and activities, as instruction will occur in both languages.

**ASL 220 Specialized Settings of Interpreting (3)**

3 hours lecture

**Prerequisite:** Completion of, 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)**

4 ½ hours laboratory

**Prerequisite:** Concurrent enrollment in or completion of ASL 216**Note:** May be taken 2 times**Transfer acceptability:** CSU

The purpose of this course is for students to apply skills and knowledge gained from previous interpreting coursework to actual interpreting assignments. Students will begin interpreting or transliterating, with appropriate supervision and in appropriate situations, for actual assignments. Students will have opportunities to observe qualified working interpreters in a variety of settings. Community service and classroom seminar discussions on professional, ethical, technical and logistical aspects of interpreting will also be included in course content. Students must demonstrate adequate ASL to English and English to ASL performance on an exit exam.

**American Studies (AMS)**

Contact the American Indian Studies Department for further information, (760) 744-1150, ext. 2425. 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 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 and 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:** ART/DANCE/MUS or TA 182**Note:** Cross listed as ART 183, DNCE 183, MUS 183, and 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 and SOC 200**Transfer acceptability:** CSU; UC – AMS/MCS/SOC 200 combined: maximum credit, one course

This course is designed to introduce the topics of intergroup relations in general to superordinate-subordinate relations in particular, as exemplified in various racial, ethnic, social class, and cultural groups. Emphasis is primarily on contemporary relations in the United States, although a comparative perspective is also offered.

**Anthropology (ANTH)**

Contact the Behavioral Sciences Department for further information, (760) 744-1150, ext. 2330. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

**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 Physical Anthropology	3
ANTH 105 Introduction to Cultural Anthropology	3
ANTH 110 Introduction to Archaeology	3
ANTH 120 Archaeological Excavation	3
ANTH/ AIS 130 Prehistoric Cultures of North America	3
ANTH/ AIS 140 or The Original Californians	3
ANTH 100L and Physical Anthropology Laboratory	1
ANTH 297 Special Problems in Archaeology	2
ANTH 205 Advanced Archaeological Excavation	3
<b>TOTAL UNITS</b>	<b>21</b>

**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 Physical Anthropology	3
ANTH 105 Introduction to Cultural Anthropology	3
ANTH 110 Introduction to Archaeology	3
ANTH 120 Archaeological Excavation	3
ANTH 205 or Advanced Archaeological Excavation	3
ANTH 220 Advanced Archaeological Surveying	3
ANTH 210 Archaeological Surveying	3
ANTH 215 Archaeological Laboratory Analysis	3
<b>TOTAL UNITS</b>	<b>21</b>

**Archaeology**

Provides the student with training which will enhance employment opportunities as a para-professional archaeologist as well as sufficient background to begin upper division work in anthropology.

**A.A. Degree Major****Program Requirements**

		<b>Units</b>
ANTH 100	Introduction to Physical Anthropology	3
ANTH 105	Introduction to Cultural Anthropology	3
ANTH 110	Introduction to Archaeology	3
ANTH 120	Archaeological Excavation	3
ANTH/ AIS 130 or ANTH/ AIS 140	Prehistoric Cultures of North America	3
ANTH 205	The Original Californians	3
ANTH 210	Advanced Archaeological Excavation	3
ANTH 215	Archaeological Surveying	3
ANTH 225	Archaeological Laboratory Analysis	3
	Historical Archaeology	3

**Electives (Select 6 units from Groups One and/or Two)****Group One**

AIS 150	American Indian Philosophy and Religion	3
ANTH 125	Evolution, Science & Religion	3
ANTH/ AS 126	Cultures of Africa	3
ANTH 135	Magic and Folk Religions	3
ANTH 145	Cultures of the Pacific Rim	3
ANTH/ ENG 150	Introduction to Linguistics	3
ANTH/ CS 155	Ancient Civilizations of Meso-America	3
ANTH 160	Major Themes/Discoveries/Anth	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	Physical Anthropology Laboratory	1
ANTH 220	Advanced Archaeological Surveying	3
ANTH 297	Special Problems in Archaeology	1,2,3
CE 150	Cooperative Education Internship	2,3
CSIS 179	Access	1
GEOG 120	Intro Geog Info Sys/Software	3
GEOG 132	Database Mgmt/Data Acquisition	3
GEOG 134	GIS Applications	3
GEOG 136	Intermediate ArcGIS: GIS Analysis	3
GEOG 138	GIS Internship	3
DT/RDT 125	AutoCAD Intro to Computer Aided Drafting	3
PHOTO 230	Digital Darkroom	3
PSYC/SOC 205	Statistics for the Behavioral Sciences	3
<b>TOTAL UNITS</b>		<b>33</b>

**COURSE OFFERINGS**

An activity may be taken four times for credit. Activity is defined to include all ability levels. (e.g., A student may take a total of only four Archeological Excavation courses for credit.)

**ANTH 100 Introduction to Physical Anthropology (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC; CAN ANTH 2

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 Physical Anthropology Laboratory (1)**

3 hours laboratory

**Prerequisite:** Completion of, 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 105 Introduction to Cultural Anthropology (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC; CAN ANTH 4

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 110 Introduction to Archaeology (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC; CAN ANTH 6

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 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 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 145 Cultures of the Pacific Rim (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC

Peoples and cultures of the Pacific Rim Nations with a focus on cultural similarities and differences in East Asia, Oceania, and the Americas.

- ANTH 150 Introduction to Linguistics (3)**  
*3 hours lecture*  
**Note:** Cross listed as ENG 150  
**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.
- 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 160 Major Themes and Discoveries in Anthropology (3)**  
*3 hours lecture*  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC - Credit determined by UC upon review of course syllabus.  
 A general survey of major themes and discoveries in anthropology such as primatology, culture change phenomena, and civilizations of the Old World. Topics will vary from semester to semester.
- ANTH 205 Advanced Archaeological Excavation (3)**  
*1 hour lecture-6 hours laboratory*  
**Recommended preparation:** ANTH 120  
**Note:** May be taken 4 times  
**Transfer acceptability:** CSU  
 Training in excavating archaeological features. Specialized field techniques. Archaeological theory as it applies to site interpretation.
- ANTH 210 Archaeological Surveying (3)**  
*2 hours lecture-2 hours lecture/laboratory*  
**Recommended preparation:** ANTH 120  
**Transfer acceptability:** CSU  
 Archaeological surveying techniques including field reconnaissance, use of topographical maps, site recording, and preparation of a project analysis or report.
- ANTH 215 Archaeological Laboratory Analysis (3)**  
*2 hours lecture-2 hours lecture/laboratory*  
**Recommended Preparation:** ANTH 120  
**Transfer acceptability:** CSU  
 Training in the laboratory analysis of stone, ceramic, bone, and other artifacts as well as elementary archaeological theory, statistics, and report preparation.
- ANTH 220 Advanced Archaeological Surveying (3)**  
*2 hours lecture-2 hours lecture/laboratory*  
**Recommended preparation:** ANTH 210  
**Transfer acceptability:** CSU  
 Advanced archaeological survey techniques including sample survey, site relocation, and the use of Global Positioning System (GPS) and laser transit hardware and software for site recordation, data conversion, site mapping, and the completion of a mapping program.
- ANTH 225 Historical Archaeology (3)**  
*2 hours lecture-2 hours lecture/laboratory*  
**Recommended preparation:** ANTH 120  
**Transfer acceptability:** CSU  
 Method and theory of historical archaeology, including archival research, artifact identification, and report preparation. Training in the location and interpretation of archival documents, such as Franciscan Mission records, Spanish land grant documents, homestead patents, Sanborn fire insurance maps, assessor's records, and historical topographic maps. Training in the identification of ceramic, glass and metal artifacts and their associated function, method of manufacture, manufacturer, and temporal distribution.
- ANTH 296 Special Problems in Anthropology (1,2,3)**  
*3, 6, or 9 hours laboratory*  
**Note:** ANTH 296 and 297 may be taken 4 times as Archaeology AA degree electives for a combined maximum of 6 units.  
**Transfer acceptability:** CSU; UC - Credit determined by UC upon review of course syllabus.  
 An individualized or group project in cultural or physical anthropology of any nature approved by the instructor and under the personal supervision of the instructor.
- ANTH 297 Special Problems in Archaeology (1,2,3)**  
*3, 6 or 9 hours laboratory*  
**Note:** ANTH 296 and 297 may be taken 4 times as Archaeology AA degree electives for a combined maximum of 6 units.  
**Transfer acceptability:** CSU; UC - Credit determined by UC upon review of course syllabus.  
 An individualized or group project in archaeology approved by the instructor and under the personal supervision of the instructor.

# Apprenticeship Training (AP)

**Carpentry, Drywall/Lather, Electrician, Sheet Metal, Sound and Communication Systems**

Contact Occupational & Noncredit programs for further information, (760) 744-1150, ext. 2600

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

## 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 students for each program successfully completed. Students who wish to obtain an Associate in Arts Degree may do so by fulfilling the general graduation requirements in addition to the completion of the apprenticeship courses.**

A program is maintained for the training of apprentices in the trades as listed. Students who wish to become apprentices should appear before the appropriate Joint Apprenticeship Committee. Training consists of full-time work on-the-job supplemented by related classroom instruction. All students entered in the apprenticeship work experience program are expected to enter AP WE 110. A maximum of 16 units, credit/no credit only, may be earned in Cooperative Work Experience Education, not to exceed 4 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, journeyman trade certificates and college achievement certificates are awarded at a special completion ceremony.

The final digit in the course number indicates that period of apprenticeship.

**SAFETY GLASSES** - Education Code 32030-32034 requires that safety glasses be worn in those classes where eye damage might occur. Students in such classes will be so informed by their instructors. Glasses are available at the college bookstore.

## Carpentry (AP C)

A four-year apprenticeship program. Applicants for this program should be directed to the Carpenters Joint Apprenticeship and Training Committee for Southern California, San Diego Carpenters Training Center, 8595 Miralani Drive, San Diego, CA 92126. Telephone (858) 621-2667.

### A.A. Degree Major or Certificate of Achievement

#### Program Requirements

AP C 108	Welding
AP C 201	Orientation I

#### Units

3
1.5

AP C 202	Orientation II	1.5
AP WE 110	Work Experience	16

#### Electives (Select 14 courses)

AP C 203	Blueprint I	1.5
AP C 204	Blueprint II	1.5
AP C 205	Foundations	1.5
AP C 206	Flatworks	1.5
AP C 207	Tilt-Up	1.5
AP C 208	Wall Forms	1.5
AP C 209	Gang Forms	1.5
AP C 210	Patented Forming Systems	1.5
AP C 211	Architectural Concrete	1.5
AP C 212	Column Forms	1.5
AP C 213	Beam & Deck Forming	1.5
AP C 214	Wall Framing I	1.5
AP C 215	Wall Framing II	1.5
AP C 216	Floor Framing	1.5
AP C 217	Stair Building I	1.5
AP C 218	Stair Building II	1.5
AP C 219	Exterior Details I	1.5
AP C 220	Exterior Details II	1.5
AP C 221	Roof Framing I	1.5
AP C 222	Roof Framing II	1.5
AP C 223	Metal Framing	1.5
AP C 224	Commercial Framing	1.5
AP C 225	Formwork Problems	1.5
AP C 226	Bridge Construction	1.5
AP C 227	Stairs & Ramps	1.5
AP C 228	Stair Trim	1.5
AP C 229	Basic Cabinetry	1.5
AP C 230	Cabinetry Installation	1.5
AP C 231	Scaffolding – Orientation I	1.5
AP C 232	Scaffolding – Orientation II	1.5
AP C 233	Scaffolding Introductions	1.5
AP C 234	Interior Scaffolding	1.5
AP C 235	Residential/Commercial Molding	1.5
AP C 236	Plastic Laminates	1.5
AP C 237	Introduction to Door Hardware	1.5
AP C 238	Wood/Metal Jamb and Pre-hung Doors	1.5
AP C 239	Hinge and Door-Closure Hardware	1.5
AP C 240	Cylindrical and Mortise Locksets	1.5
<b>TOTAL UNITS</b>		<b>43</b>

## COURSE OFFERINGS

### AP C 108 Welding (3)

2 hours lecture-3 hours laboratory

**Note:** May be taken 2 times

Introduction to trade welding. Emphasis is given to the importance of safe work practices on the construction site and the goal of welder certification. The AWS welding codes for structural, light gauge, and re-bar certifications are reviewed.

### AP C 197 Carpentry Topics (.5-4)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Prerequisite:** Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California

**Note:** May be taken 4 times

Topics in Carpentry. See Class Schedule for specific topic offered. Course title will designate subject covered.

### AP C 201 Orientation I (1.5)

1 hour lecture-1 ½ hours laboratory

**Prerequisite:** Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California

**Note:** May be taken 2 times

This course will introduce the use of various hand and power tools used in the trade. Students will be introduced to the history of trade apprenticeships. Construction math and job site safety practices will also be covered.

### AP C 202 Orientation II (1.5)

1 hour lecture-1 ½ hours laboratory

**Prerequisite:** AP C 201

**Note:** May be taken 2 times

This course will provide the apprentice with various safety

competencies. A student will demonstrate the ability to construct a welded frame scaffold to OSHA standards as well as the operation of a lift truck. In addition they will be introduced to blueprints and their use.

**AP C 203 Blueprint I (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course is the first of two classes in blueprint reading. The course will cover the fundamental functions and structure of blueprints. Construction drawings, line symbols, freehand sketching as well as pictorial drawings will be covered.

**AP C 204 Blueprint II (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Prerequisite:** *AP C 203*

**Note:** *May be taken 2 times*

This course is the second of two classes in blueprint reading. This course will cover foundation prints, commercial prints, residential prints and estimating. Construction specifications will also be covered.

**AP C 205 Foundations (1.5)**

*1 hour lecture- 1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course will focus on the use of concrete in the construction industry. Basic layout techniques will be studied and applied for foundations. Related safety, math and blueprint reading will be covered.

**AP C 206 Flatworks (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course is designed to show the various applications of forming to include slab-on-grade, driveways and walks, and curb and gutter forms. Related safety, math and blueprint reading will be covered.

**AP C 207 Tilt-Up (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course is designed to give an overview of the Tilt-up industry. Form techniques and panel hardware will be discussed. Related safety, math and blueprint reading will be covered.

**AP C 208 Wall Forms (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course will introduce the basic techniques of poured-in-place concrete wood form construction. Related safety, math and blueprint reading will be covered.

**AP C 209 Gang Forms (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course will present the various applications of pre-fabricated wall forming systems. Related safety, blueprint reading will be covered.

**AP C 210 Patented Forming Systems (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

Proprietary wall forming systems such as Atlas, EFCO, and Symons are an integral part of the concrete industry. Students will be instructed in the application and rigging of these systems.

**AP C 211 Architectural Concrete (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Notes:** *May be taken 2 times*

In this course the forming of poured-in-place columns will be covered, with instruction and practice in both job-built.

**AP C 212 Column Forms (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

In this course the forming of poured-in-space columns will be covered, with instruction and practice in both job-built and the proprietary systems, and the shoring and forming of drop heads. Estimating, safety, and rigging of materials will be included. Math and blueprint reading will be covered.

**AP C 213 Beam and Deck Forming (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course will introduce the use of various wood and patented forming systems used in the construction of concrete beams and decks. Metal beam forms and capitals will be taught in this class. Layout and builders level skills will be used in this class.

**AP C 214 Wall Framing I (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course provides an introduction to the theory and practice of wall framing. Students start by learning to read floor plans, and then laying out wall locations, plate and detail, as well as openings and structural connections. Construction math and job site safety practices will also be covered.

**AP C 215 Wall Framing II (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Prerequisite:** *AP C 214*

**Note:** *May be taken 2 times*

This class covers layout, assembly, and erection of both standard and raked walls. Application of bracing, plumbing and aligning walls will also be covered. Construction math, blueprint reading and job site safety practices will also be covered.

**AP C 216 Floor Framing (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course will cover 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 and math will also be covered.

**AP C 217 Stair Building I (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

Stair construction is an integral part of carpenter's trade. This course presents stair theory, related mathematics, code requirements and basic layout stringers, treads and risers. Students will layout, cut and erect a straight-run stair. Blueprint reading and safety will also be covered.

**AP C 218 Stair Building II (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Prerequisite:** *AP C 217*

**Note:** *May be taken 2 times*

This course builds upon the concepts presented in Stair Building I. This class will teach students about winders, u-shaped and radius stair building, as well as code requirements and mathematical calculations. Blueprint reading and safety will also be covered.

**AP C 219 Exterior Details I (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

This course 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 220 Exterior Details II (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Prerequisite:** *AP C 219*

**Note:** *May be taken 2 times*

A continuation of Exterior Details I, this course will review the reading of relevant drawings, and include hands-on training in window installation, door and window trim, as well as various sidings and trims. Mathematical calculations and safety will also be covered.

**AP C 221 Roof Framing I (1.5)**

*1 hour lecture-1 ½ hours laboratory*

**Note:** *May be taken 2 times*

Roof construction is one of the most challenging and satisfying facets of carpentry. This basic course will introduce 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 222 Roof Framing II** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Prerequisite:** AP C 221  
**Note:** May be taken 2 times  
 This course is a continuation of Roof Framing I, and will review rafter theory, and introduces hip and intersecting roofs, blind valley and dormer construction. Mathematical calculations for various rafter lengths and safety will also be covered.
- AP C 223 Metal Framing** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 This course 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 224 Commercial Framing** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 The thrust of this course will be commercial blueprint reading, along with an introduction to balloon wall framing and panelized roof systems. Construction math, blueprint reading and job site safety practices will also be covered.
- AP C 225 Formwork Problems** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 This course will address form design, material estimating and problems relative to form construction. Related safety, math and blueprint reading will be covered.
- AP C 226 Bridge Construction** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 This course is to give an overview of basic bridge construction. Related safety, math and blueprint reading will be covered.
- AP C 227 Stairs & Ramps** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 This course is designed to teach the various techniques used to form stairs and ramp structures. Related safety, math and blueprint reading will be covered.
- AP C 228 Stair Trim** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Covers a variety of moldings, installation for interior stairs, blueprint, and finish schedules, math and related safety regulations.
- AP C 229 Basic Cabinetry** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to basic cabinet construction. Blueprint and finish schedules will be covered as well as related safety and math.
- AP C 230 Cabinetry Installation** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Students will learn how to install base and wall-hung cabinets, learn scribing techniques, and how to read blueprint and finish schedules. Related safety and math will also be covered.
- AP C 231 Scaffolding – Orientation I** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 This course provides instruction in various safety competencies. The Federal Occupational Safety and Health Act (OSHA) as well as California Occupational Safety and Health Act (Cal OSHA) will be covered. Hand tools, power tools, math, and beginning blueprint reading will also be covered.
- AP C 232 Scaffolding – Orientation II** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 This course will provide the apprentice instruction in various safety competencies. Students will learn to safely operate a life truck and aerial lift equipment in addition to receiving American Red Cross First Aid/CPR training.
- AP C 233 Scaffolding Introductions** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to basic layout and assembly of welded frame scaffolding. Calculating leg loads, structure plan views, material estimating and safety, math and blueprint reading will also be covered.
- AP C 234 Interior Scaffolding** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to the basic layout and assembly of welded frame, tube-and-clamp and rolling tower scaffolding for large interior projects. Calculating leg loads, structural plan views, material estimating and related safety, math and blueprint reading will also be covered.
- AP C 235 Residential/Commercial Molding** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to various moldings and the specific installation techniques of each. Blueprint, finish schedules, related safety and math will also be covered.
- AP C 236 Plastic Laminates** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to the manufacture and installation of plastic laminates on horizontal and vertical surfaces to include instruction in cutting and scribing. Blueprint, finish schedules, and related safety and math will also be covered.
- AP C 237 Introduction to Door Hardware** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to doors and door hardware schedules, specifications and manufacturer's catalogs. Fire codes that govern the hardware industry as well as how to identify various door hardware including locksets, closures, hinges, panic hardware and door sweeps etc. Blueprint, finish schedules, and related safety and math will also be covered.
- AP C 238 Wood/Metal Jambs and Pre-hung Doors** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to the various types of metal and wood door jambs and instruction on proper assembly. Shop demonstrations will include proper installation and techniques to scribe a new door to an existing jamb. Blueprint, finish schedules, and related safety and math will also be covered.
- AP C 239 Hinge and Door-Closure Hardware** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to the selection and installation of proper hinge and door-closure hardware, Blueprints, finish schedules, and related safety and math will also be covered.
- AP C 240 Cylindrical and Mortise Locksets** (1.5)  
*1 hour lecture-1 ½ hours laboratory*  
**Note:** May be taken 2 times  
 Introduction to proper selection and installation of cylindrical and mortise locksets and exit devises. Students will gain hands-on experience in the proper selection of power tools for installing various types of locksets in commercial and residential properties. Blueprint, finish schedules, and related safety and math will also be 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.A. Degree Major or Certificate of Achievement**

Program Requirements		Units
AP DL 201	Drywall/Lather Orientation I	1.5
AP DL 202	Drywall/Lather Orientation II	1.5
AP DL 203	Blueprint Reading I	1.5
AP DL 204	Blueprint Reading II	1.5
AP DL 205	Basic Lathing – Structural Framing	1.5
AP DL 206	Ceilings & Soffits	1.5
AP DL 207	Basic Framing – Material Identification	1.5
AP DL 208	Advanced Framing/Suspended Ceilings/CRC	1.5
AP DL 209	Advanced Framing – Curves & Arches	1.5
AP DL 210	AWS Certification – Welding – Light Gage	1.5
AP DL 211	LA City Certification – Welding – Light Gage	1.5
AP DL 212	Drywall Finishing	1.5
AP DL 213	Acoustical Ceilings	1.5
AP WE 110	Work Experience	16
<b>TOTAL UNITS</b>		<b>35.5</b>

**COURSE OFFERINGS****AP DL 197 Drywall/Lather Topics (1.5)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Prerequisite:** Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California

**Note:** May be taken 4 times.

Topics in Drywall/Lather. See Class Schedule for specific topic offered. Course title will designate subject covered.

**AP DL 201 Drywall/Lather Orientation I (1.5)**

1 hour lecture-1 ½ hours laboratory

**Prerequisite:** Indentured apprentice to the Carpenters Joint Apprenticeship and Training Committee for Southern California

**Note:** May be taken 2 times

This course will provide the apprentice with various safety competencies. Hand tools, power tools, math, and beginning blueprint reading will also be covered. A student will demonstrate the ability to construct a welded frame scaffold to OSHA standards.

**AP DL 202 Drywall/Lather Orientation II (1.5)**

1 hour lecture-1 ½ hours laboratory

**Prerequisite:** AP DL 201

**Note:** May be taken 2 times

This course will provide the apprentice with various safety competencies. A student will demonstrate the ability to safely operate a lift truck and aerial lift equipment. In addition they will receive American Red Cross First Aid/CPR as well as training in asbestos awareness and low velocity powder actuated tools.

**AP DL 203 Blueprint Reading I (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to teach the basics of reading, understanding and visualizing the blueprints. Terms, symbols and definitions from several trades will be incorporated. Prints showing both residential and commercial application will be used. Related safety, math and blueprint reading will be covered.

**AP DL 204 Blueprint Reading II (1.5)**

1 hour lecture-1 ½ hours laboratory

**Prerequisite:** AP DL 203

**Note:** May be taken 2 times

This course will give the student more in depth training related to on the job conditions. Basic estimating, material take offs and organizing jobs will be included. Related safety, math and blueprint reading will be covered.

**AP DL 205 Basic Lathing – Structural Framing (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course will cover the different styles and techniques of structural framing compared to light gage framing. Proper waterproofing, lath or drywall and trim will be explained, demonstrated and applied to the framing. Related safety, math and blueprint reading will be covered.

**AP DL 206 Ceilings & Soffits (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to provide instruction in the basics of framing ceilings and soffits with drywall and lath application. Related safety, math and blueprint reading will be covered.

**AP DL 207 Basic Framing – Material Identification (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

An in-depth study of basic material identification, print layout, framing, drywall applications and proper trim applications for the Drywall/Lath industry. Safety, math and blueprint reading will be covered.

**AP DL 208 Advanced Framing/Suspended Ceilings/CRC (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to provide related classroom instruction with the technical skills and knowledge to successfully frame any suspended ceiling in drywall and lath. Related hand and power tool safety, math and blueprint reading will be covered.

**AP DL 209 Advanced Framing – Curves & Arches (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to teach curves and arches, barrel ceilings, radius walls and soffits. Related hand and power tool safety, math and blueprint reading will be covered.

**AP DL 210 AWS Certification – Welding – Light Gage (.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to teach the practical skills needed for the arc welding processes and applications. Students will have the practical skills to successfully pass the AWS light gage certification. Related safety, codes and materials will be covered.

**AP DL 211 LA City Certification – Welding – Light Gage (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

Assists students in preparing for the Los Angeles City Light Gage Welding Certification. Written and practical skills of the test will be demonstrated and discussed in order to associate the student with the working knowledge necessary to successfully achieve a Los Angeles City Light Gage Welding Certification. Related safety, codes and materials will be covered.

**AP DL 212 Drywall Finishing (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to give the apprentice a full perspective of the finish trade. Blueprint and finish schedules will be covered. The basic gypsum board applications and finish trims will be explored. The various tools used from basic hand tools such as the "bazooka", boxes and nail spotters will also be covered. Related safety and math will be included.

**AP DL 213 Acoustical Ceilings (1.5)**

1 hour lecture-1 ½ hours laboratory

**Note:** May be taken 2 times

This course is designed to provide the apprentice with the knowledge and application of Acoustical ceilings, seismic codes and the supporting theory. Wall molds and trims, and ceiling layouts will be covered. Blueprints reading will cover terms, symbols and definitions for both commercial and residential projects. Related safety, math, safety codes and materials will be covered.

**Electrician (AP E)**

A five-year apprenticeship program. Applicants for San Diego/Imperial counties should apply to the San Diego Electrical Training Trust, 4675 Viewridge Avenue, Suite D, San Diego, CA 92123. Telephone: (858) 569-6322.

Applications for Riverside/San Bernardino/Mono/Inyo counties should apply to the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committees, 1655 East Riverview Drive, San Bernardino, CA 92408. Telephone: (909) 796-9340.

**A.A. Degree Major or Certificate of Achievement**

Program Requirements	Units
AP E 101 Electrical Trade/Industry/DC/Conduit	4
AP E 102 Electrical Theory/Practice/Blueprint Reading	4
AP E 103 Inductance/Capacitance Theory	4
AP E 104 Transformers/Code Calculations/Conduit	4
AP E 105 Electronic/Industrial Blueprints	4
AP E 106 Grounding/Elec Svcs/Connection	4
AP E 107 Motor Control/Pilot Dev/ Starters	4
AP E 108 Digital Electronics	4
AP E 109 Mgmt/Alarms/Testing/Wiring	4
AP E 110 Programmable Logic Controllers	4
AP WE 110 Work Experience	16
<b>TOTAL UNITS</b>	<b>56</b>

**COURSE OFFERINGS**

**AP E 101 Introduction to the Electrical Trade and Industry, DC Theory and Conduit Bending (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** Completion of the following: (1) One semester of Algebra 1 with a grade of "C" or better; (2) Designated tests with a passing grade determined by the appropriate committee; (3) Indentured apprentice to the San Diego Electrical Joint Apprenticeship and Training Committee or the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committee  
**Note:** May be taken 2 times  
 Orientation to the electrical industry; introduction to the electrical code; fundamentals of wiring methods, fastening devices, electrical conductors, circuits, and voltage.

**AP E 102 Electrical Theory, Practice and Blueprint Reading (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 101  
**Note:** May be taken 2 times  
 Study of floor and plot plan; basic blueprint reading and circuit drawing; theory of magnetism; DC and AC generators; motors and transformers; on-the-job safety and first aid, and the electrical code.

**AP E 103 Inductance and Capacitance Theory and Codeology (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 102  
**Note:** May be taken 2 times  
 Review of the International Brotherhood of Electrical Workers constitution and local union by-laws. Study of the effects of inductance and capacitance on current and voltage. Application of phase angle calculation and the National Electric Code. Overview of workplace problems due to drug abuse.

**AP E 104 Transformers and Code Calculations, Conduit Bending and Blueprints (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 103  
**Note:** May be taken 2 times  
 Study of transformers theory, installation, connection and distribution systems. Performing short circuit calculations, selecting of building wire for specific applications, calculating loads for residential and multifamily loads and service feeders. Applying conduit bending principles using mechanical benders to fabricate segmented concentric bends.

**AP E 105 Introduction to Electronics and Industrial Blueprints (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 104  
**Note:** May be taken 2 times  
 Introduction to basic electronics including examination of semiconductor devices, current and voltage manipulation, applications, and blueprint reading.

**AP E 106 Grounding, Electrical Services, and Transform Three-Phase Connections (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 105  
**Note:** May be taken 2 times  
 Study of requirements for electrical services installation. Study of electrical grounding including merits, impact on safety, ground fault protection, and identification of grounding system elements and functions.

**AP E 107 Electrical Motor Control, Pilot Devices, Starters and Relays (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 106  
**Note:** May be taken 2 times  
 Study of controls and circuits, pilot devices, starters, and relays. Includes the analysis and development of circuits, the installation and service of electrical equipment, and the electrical code.

**AP E 108 Digital Electronics (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 107  
**Note:** May be taken 2 times  
 Introduction to digital electronic technology and electronic equipment. Instruction includes basic digital systems, binary and decimal numbering systems, decision-making logic circuits, Boolean Algebra, flip-flops, counters, shift registers, encoders, decoders, ROMs, DC to AC converters and organization of these component blocks to accomplish manipulation of data.

**AP E 109 Management, Fire Alarms, High Voltage Testing, and Telephone and Security Wiring (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 108  
**Note:** May be taken 2 times  
 Introduction to management and marketing practices, installation of fire alarm systems and the National Electric Code as it relates to alarm installation and high voltage of telephone wiring and security systems.

**AP E 110 Programmable Logic Controllers (4)**

*3 hours lecture-3 hours laboratory*  
**Prerequisite:** AP E 109  
**Note:** May be taken 2 times  
 Introduction to basic input/output hardware, processors and memory numbering systems associated with programmable controllers. Instruction includes use of personal computer to create and modify ladder diagrams and relay instructions, using solid state logic elements, counters, and shift registers. Principles of process control are explained and principle components are identified.

**AP E 197 Electrical Topics (.5-4)**

*Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.*  
**Prerequisite:** Indentured apprentice to the San Diego Electrical Joint Apprenticeship and Training Committee or the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committee  
**Note:** May be taken 4 times  
 Concentrated courses on electricity. Course title will designate subject covered.

**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 (858) 265-2758.

**A.A. Degree Major or Certificate of Achievement**

Program Requirements	Units
AP SM 101 Basic Sheet Metal Processes I	4
AP SM 102 Basic Sheet Metal Processes II	4
AP SM 103 Intermediate Processes I	4
AP SM 104 Intermediate Processes II	4

AP SM 105	Sheet Metal Welding	3
AP SM 106	Plans & Specifications	4
AP SM 107	Construction Plan Problem Solving	4
AP SM 108	Introduction to Basic Refrigeration	4
AP SM 109	Foreman Training	4
AP SM 110	Project Management	4
AP WE 110	Work Experience	16
<b>TOTAL UNITS</b>		<b>55</b>

**COURSE OFFERINGS**

**AP SM 101 Basic Sheet Metal Processes I (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* Indentured apprentice to the San Diego Sheet Metal Joint Apprenticeship and Training Committee  
*Note:* May be taken 2 times  
 This course provides an introduction to the basic principles, processes, drawings and materials used in the sheet metal industry.

**AP SM 102 Basic Sheet Metal Processes II (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 101  
*Note:* May be taken 2 times  
 A continuation of basic sheet metal processes as well as an introduction to simple sheet metal forming processes.

**AP SM 103 Intermediate Processes I (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 102  
*Note:* May be taken 2 times  
 An introduction to intermediate sheet metal processes demonstrating job layout, architectural details and construction techniques with problems of unusual complexity and difficulty.

**AP SM 104 Intermediate Processes II (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 103  
*Note:* May be taken 2 times  
 A continuation of intermediate sheet metal introducing problems of greater complexity and difficulty.

**AP SM 105 Sheet Metal Welding (3)**  
 1 ½ hours lecture-4 ½ hours laboratory  
*Prerequisite:* AP SM 104  
*Note:* May be taken 2 times  
 An introduction to the basic principles and methods of gas and arc welding used in the sheet metal industry. Includes codes, standards, welding theory and the practical application using prescribed welding procedures and equipment.

**AP SM 106 Plans and specifications (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 105  
*Note:* May be taken 2 times  
 An introduction to the language and organization of plans and specifications for sheet metal projects. Topics will include architectural, structural, mechanical and electrical drawings as well as how to write and implement a change order to plans and specifications.

**AP SM 107 Construction Plan Problem Solving (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 106  
*Note:* May be taken 2 times  
 Learn to apply detailing and research skills to create changes to plans and specifications using intermediate process problems of unusual complexity and difficulty.

**AP SM 108 Introduction to Basic Refrigeration (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 107  
*Note:* May be taken 2 times  
 An introduction to the physical components and systems of a basic HVAC system as well as hands-on techniques for startup and basic system troubleshooting.

**AP SM 109 Foreman Training (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 108  
*Note:* May be taken 2 times  
 Develop skills for planning and supervision of projects and employees in the sheet metal industry. Topics will include budgets, human relations, communication, leadership, training and evaluation.

**AP SM 110 Project Management (4)**  
 3 hours lecture-3 hours laboratory  
*Prerequisite:* AP SM 109  
*Note:* May be taken 2 times  
 Develop comprehensive sheet metal project management skills using problems of unusual complexity and difficulty.

**AP SM 197 Sheet Metal Topics (.5-4)**  
*Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.*  
*Prerequisite:* Indentured apprentice to the San Diego Sheet Metal Joint Apprenticeship and Training Committee  
*Note:* May be taken 4 times  
 Topics in Sheet Metal. See Class Schedule for specific topic offered. Course title will designate subject covered.

**Sound and Communication Systems Installer (AP SC)**

A three-year apprenticeship program. Applicants for this program should be directed to the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committees, 1655 East Riverview Drive, San Bernardino, CA 92408. Telephone: (909) 796-9340.

**A.A. Degree Major or Certificate of Achievement**

<b>Program Requirements</b>		<b>Units</b>
AP SC 101	Intro to Sound/Communication Trade Industry	4
AP SC 102	Electrical Theory and Practices DC	4
AP SC 103	Electrical Theory and Practices AC	4
AP SC 104	Semiconductor Electronics	4
AP SC 105	Intro to Digital Electronics	4
AP SC 106	Management/Alarms/Codes/Circuits	4
AP WE 110	Work Experience	16
<b>TOTAL UNITS</b>		<b>40</b>

**Sound Technician (AP SC)**

A four-year apprenticeship program. Students will work in the field during the day and attend class in the evenings. Each apprentice is paid for field work with regularly scheduled pay increases based on required work hours and completion of classroom instruction. Upon completion of this program, students will receive a certificate of completion from the California Division of Apprenticeship Standards and Journeyman Sound Technician status in the I.B.E.W. All students must be indentured Sound Technical apprentices to be eligible for the course. Interested applicants from San Diego/Imperial counties should apply to the San Diego Electrical Training Trust, 4675 Viewridge Avenue, Suite D, San Diego, CA 92123. Telephone: (858) 569-6322.

**A.A. Degree Major or Certificate of Achievement**

<b>Program Requirements</b>		<b>Units</b>
AP SC 101	Intro to the Sound/Communication Trade Industry	4
AP SC 102	Electrical Theory and Practices DC	4
AP SC 103	Electrical Theory and Practices AC	4
AP SC 104	Semiconductor Electronics	4
AP SC 105	Introduction to Digital Electronics	4
AP SC 106	Management/Alarms Codes/Circuits	4
AP SC 107	Life Safety and Security System Applications	4
AP SC 108	Specialized Systems and Supervision Techniques	4
AP WE 110	Work Experience	16
<b>TOTAL UNITS</b>		<b>48</b>

## COURSE OFFERINGS

**AP SC 101 Introduction to the Sound and Communication Trade Industry (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** A minimum grade of "C" in MATH 50. Completion of designated tests with a passing grade determined by the appropriate committee. Indentured Apprentice to the Riverside, San Bernardino, Mono, and Inyo Counties Sound and Communications Joint Apprenticeship Committee or the San Diego Sound & Communications Joint Apprenticeship Committee

**Note:** May be taken 2 times

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

**AP SC 102 Electrical Theory and Practices DC (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 101**Note:** May be taken 2 times

Study of floor and plot plans, basic blueprint reading and circuit drawing, theory of magnetism, DC and AC generators, motors and transformers, on-the-job safety, first aid, electrical code, telephony and data communications.

**AP SC 103 Electrical Theory and Practices AC (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 102**Note:** May be taken 2 times

Study of apprenticeship, electrical inductance, capacitance and reactance, including grounded conductors, branch circuits, transformer principles, RCL circuits and filters.

**AP SC 104 Semiconductor Electronics (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 103**Note:** May be taken 2 times

Study of solid-state electronic theory and components, diodes, transistors, SCR, triacs, diacs, IC amplifiers and op amps.

**AP SC 105 Introduction to Digital Electronics and Signaling Devices (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 104**Note:** May be taken 2 times

Introduction to digital electronic technology and electronic equipment. Instruction includes basic digital systems, binary and decimal numbering systems, decision-making logic circuits, Boolean Algebra, flip-flops, counters, shift registers, encoders, decoders, ROMs, DC to AC converters and organization of these component blocks to accomplish manipulation of data.

**AP SC 106 Management/Alarms/Codes/Circuits (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 105**Note:** May be taken 2 times

Introduction to management, installation of security and fire alarm systems, the National Electrical Code as it relates to alarm installation and circuits as applied to alarm systems.

**AP SC 107 Life Safety and Security System Application (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 106**Note:** May be taken 2 times

Continuation of digital theory studies. Instruction expands coverage of Life Safety Systems, and introduces the theory and application of Nurse Call Systems and Security Systems with an emphasis on closed circuit television (CCTV) installation.

**AP SC 108 Specialized Systems and Supervision Techniques (4)**

3 hours lecture-3 hours laboratory

**Prerequisite:** AP SC 107**Note:** May be taken 2 times

Study of specialized building systems including cable television systems (CATV), master antenna systems (MATV), and building automation systems. Training will cover aspects of job administration including personal computer use, job estimating, customer relations, and building system startup procedures.

**AP SC 197 Sound and Communication Systems Installer Topics (5-4)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Prerequisite:** Indentured apprentice to the Riverside, San Bernardino, Mono, and Inyo Counties Sound and Communications Joint Apprenticeship Committee or the San Diego Sound & Communications Joint Apprenticeship Committee

**Note:** May be taken 4 times

Topics in Sound and Communication Systems Installer. See Class Schedule for specific topic covered. Course title will designate subject covered.

**Work Experience (AP WE)****AP WE 110 Work Experience (1,2,3,4)**

5, 10, 15, or 20 hours laboratory

**Prerequisite:** Indentured apprentice to a designated Joint Apprenticeship and Training Committee

**Note:** Credit/No Credit grading only; may be taken 4 times

On-the-job experience for the duration of the apprenticeship period.

**Arabic (ARAB)**

Contact the Foreign Languages Department for further information, (760) 744-1150, ext. 2390

## COURSE OFFERINGS

**ARAB 101A Arabic IA (3)**

3 hours lecture

**Note:** Covers the first half of first semester Arabic.

**Transfer acceptability:** CSU: UC – ARAB 101A and 101B combined: maximum credit, 5 units: UC – both courses must be taken for transfer credit to be given.

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:** ARAB 101A or one year of high school Arabic**Note:** Covers the second half of first semester Arabic.

**Transfer acceptability:** CSU: UC – ARAB 101A and 101B combined: maximum credit, 5 units: UC – both courses must be taken for transfer credit to be given.

Arabic 101A and 101B are equivalent to the first semester of an elementary level course in Arabic. ARAB 101B is a continuation of ARAB 101A. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with emphasis on the development of communicative skills and basic structures.

**ARAB 102A Arabic IIA (3)**

3 hours lecture

**Prerequisite:** ARAB 101B or two years of high school Arabic**Note:** Covers the first half of second semester Arabic.

**Transfer acceptability:** CSU: UC – ARAB 102A and 102B combined: maximum credit, 5 units: UC – both courses must be taken for transfer credit to be given.

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:** ARAB 102A or two years of high school Arabic**Note:** Covers the second half of second semester Arabic.

**Transfer acceptability:** CSU: UC – ARAB 102A and 102B combined: maximum credit, 5 units: UC – both courses must be taken for transfer credit to be given.

Arabic 102A and 102B are equivalent to the second semester of an elementary course in Arabic. Arabic 102B is a continuation of Arabic 102A. This elementary level course is a study of the Arabic language and Arabic-speaking cultures, with emphasis on the development of communicative skills and basic structures.

**ARAB 201A Arabic IIIA (3)**  
3 hours lecture

**Prerequisite:** ARAB 102B or three years of high school Arabic  
**Note:** Covers the first half of third semester Arabic.

**Transfer acceptability:** CSU: UC – ARAB 201A and 201B combined: maximum credit, 5 units: UC – both courses must be taken for transfer credit to be given.

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:** ARAB 201A

**Note:** Covers the second half of third semester Arabic.

**Transfer acceptability:** CSU: UC – ARAB 201A and 201B combined: maximum credit, 5 units: UC – both courses must be taken for transfer credit to be given.

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.

**Art (ART)**

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

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

**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.

In order to earn a certificate, students must achieve a minimum grade of "C" in 5 of the 6 certificate program courses.

**Certificate of Proficiency**

Program Requirements	Units
<b>(Choose 5 of the courses listed, totaling 15 units)</b>	
ARTI 246 Digital 3D Design and Modeling	3
ARTI 247 Digital 3D Design and Animation	3
GC 204 Motion Graphics for Multimedia - A	3
GC 213 Motion Graphics Production and Compositing	3
MUS 180 Computer Music I	3
MUS 184 Electronic Ensemble	3
<b>TOTAL UNITS</b>	<b>15</b>

This program is also offered in Graphic Communications and Music.

**Graphic Design**

Prepares students in basic skills necessary to prepare a portfolio for application to graphic Design, environmental Design, and packaging Design programs at 4 year schools.

In addition, develops creative Design ability and conceptual skills in the printed media, motion graphics, and web Design.

**A.A. Degree Major**

Program Requirements	Units
ART 104 Design and Composition	3
ART 166 History of Art II	3
ART 200 Color/Light and Theory	3
ARTD 100 Graphic Design I	3
ARTD 150 Digital Concepts and Techniques in Art	3
ARTD 200 Graphic Design II- Lettering and Layout	3
ARTD 210 Typography Design	3
ARTD 220 Motion Design	3
ARTD 250 New Media Studio	3
ARTI 100 Introduction to Illustration	3
ARTI 246 Digital 3D Design and Modeling	3
ARTI 247 Digital 3D Design and Animation	3
BUS 150 Advertising	3
PHOT 100 Elementary Photography	3.5
Final Art Portfolio Review	0

**Electives (Select 6-7 units)**

ART 120 Life Drawing and Composition I	3
ART 296 Special Projects	1,2,3
ARTI 220 Illustration II Digital Techniques	3
R GC / GC 140 Digital Imaging/Photoshop I	3
R GC / GC 152 Desktop Publishing/Illustrator	3
GC 160 DTP/Adobe In Design	3
RTV 275 Avid Editing for Television and Film	3
BMGT 105 Small Business Management	3
MUS 180 Digital Music	3
MUS 181 or Digital Music II	
MUS 184 Electronic Ensemble	3
CE 100 Cooperative Education	1,2,3,4

**TOTAL UNITS 48.5-49.5**

**Illustration**

Provides students with specific skills necessary to prepare a portfolio for application to Illustration programs at 4-year schools. In addition develops creative conceptual and Illustrative skills for use in advertising and story Illustration.

**A.A. Degree Major**

Program Requirements	Units
ART 104 Design and Composition	3
ART 120 Life Drawing and Composition I	3
ART 125 Head Drawing	3
ART 166 History of Art II	3
ART 200 Color/Light and Theory	3
ART 220 or Oil Painting I	
ART 225 Acrylic Painting I	3
ARTD 150 Digital Concepts and Techniques in Art	3
ARTI 100 Introduction to Illustration	3
ARTI 200 Rendering	3
ARTI 210 Illustration I	3
ARTI 220 Illustration II, Digital Techniques	3
ARTI 230 Illustration III, Experimental Techniques	3
ARTI 246 Digital 3D Design and Modeling	3
ARTI 247 Digital 3D Design and Animation	3
Final Art Portfolio Review	0

**Electives (Select 3 units)**

ART 121 Life Drawing and Composition II	3
ART 197B Topics in Art - Painting	.5-3
ART 197F Topics in Art – Drawing	.5-3
ART 235 Watercolor Painting I	3
ART 296 Special Projects	1,2,3
ARTD 100 Graphic Design I	3
ARTD 220 Motion Design	3
ARTD 250 New Media Studio	3
BUS 150 Advertising	3
BMGT 105 Small Business Management	3
CE 100 Cooperative Education	1,2,3,4
PHOT 100 Elementary Photography	3.5

**TOTAL UNITS 45**

**Interactive Media Design**

The Interactive Media Design program is also offered in Drafting Technology and Graphic Communications.

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.

**A.A. Degree Major or Certificate of Achievement*****Emphasis in 3D Modeling and Animation***

<b>Program Requirements</b>	<b>Units</b>
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
GC/RGC 140 Digital Imaging/Photoshop I	3
GC 204 Motion Graphics for Multimedia-A	3
<b>Electives (Select 2 courses)</b>	
ART 241 Computer Graphics	3
ART 248 Character Animation	1.5
ARTD 150 Digital Concepts and Techniques in Art	3
ARTD 220 Motion Design	3
DT/RDT 128 Solid Works Intro 3D Design/Presentation	3
DT 182 3D Studio Max – Advanced 3D Modeling/Animation	3
GC 142 Digital Imaging/Photoshop III	3
GC 201 Intermediate Multimedia	3
ENTT/RTV 120 Basic TV Production	3
RTV 124 Staging and Lighting for TV	3
<b>TOTAL UNITS</b>	<b>22.5 - 24</b>

***Emphasis in Multimedia Design***

<b>Program Requirements</b>	<b>Units</b>
ARTD 100 Graphic Design I	3
ARTD 220 Motion Design	3
ARTI 247 Digital 3D Design and Animation	3
GC 142 Digital Imaging/Photoshop III	3
GC/RGC 200 Introduction to Multimedia	3
GC 201 Intermediate Multimedia	3
GC 204 Motion Graphics/Multimedia-A	3
<b>Electives (Select 2 courses)</b>	
ARTD 150 Digital Concepts/Techniques in Art	3
ARTI 246 Digital 3D Design and Modeling	3
DT 180 3D Studio Max-Intro to Modeling/Animation	3
GC 100 Graphic Communications	3
GC/RGC 140 Digital Imaging/Photoshop I	3
GC/RGC 152 Desktop Publishing with Illustrator	3
GC/ART 197 Multimedia Project	3
GC/RGC 202 Web Page Layout I	3
GC 206 Web Multimedia	3
MUS 180 Computer Music I	3
RTV 170 Introduction to Video Editing	3
<b>TOTAL UNITS</b>	<b>27</b>

The Interactive Media Design program is also offered in Drafting Technology and Graphic Communication.

**Pictorial Arts**

Programs are designed to enable the student to acquire skills in producing marketable fine art for gallery exhibition and commissions, enter into the commercial area, and serve as a preparation for transfer to a four-year college or university. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

Pictorial arts majors may select an emphasis in painting or printmaking within the program requirements.

**A.A. Degree Major**

<b>Program Requirements</b>	<b>Units</b>
ART 101 Methods and Materials	3
ART 102 Drawing and Composition I	3
ART 103 Drawing and Composition II	3
ART 104 Design and Composition	3
ART 105 3-Dimensional Form and Design	3
ART 165 History of Art I	3
ART 166 History of Art II	3
ART 200 Color/Light and Theory	3
Emphasis Requirements	15-18
Final Art Portfolio Review	0
<b>TOTAL UNITS</b>	<b>39 - 42</b>

***Emphasis in Painting***

<b>Emphasis Requirements</b>	<b>Units</b>
ART 120 Life Drawing and Composition I	3
ART 121 Life Drawing and Composition II	3
<b>Plus 6 units selected from the following:</b>	
ART 220 Oil Painting I	3
ART 221 Oil Painting II	3
ART 225 Acrylic Painting I	3
ART 226 Acrylic Painting II	3
<b>Electives (Select 6 units)</b>	
ART 130 Printmaking I	3
ART 131 Printmaking II	3
ART 197F Topics in Art – Drawing	5-3
ARTI 200 Rendering	3
ARTI 210 Illustration I, Traditional Techniques	3
ARTI 220 Illustration II Digital Techniques	3
ART 220, 221, 225, 226 (if not taken in emphasis area)	3
ART 230 Airbrush Painting I	3
ART 231 Airbrush Painting II	3
ART 235 Watercolor Painting I	3
ART 236 Watercolor Painting II	3
PHOT 110 Basic 35mm Color Photo	3

***Emphasis in Printmaking***

<b>Emphasis Requirements</b>	<b>Units</b>
ART 120 Life Drawing and Composition I	3
ART 130 Printmaking I	3
ART 131 Printmaking II	3
<b>Electives (Select 6 units)</b>	
ART 162 History of the Art of the American West	3
ART 163 History of the Arts of Asia	3
ART 164 History of the Traditional Arts of Africa/ Oceania/ Americas	3
ART 170 Gallery Management/Display I	3
ART 197F Topics in Art – Drawing	5-3
ART 220 Oil Painting I	3
ART 221 Oil Painting II	3
ART 225 Acrylic Painting I	3
ART 226 Acrylic Painting II	3
ART 230 Airbrush Painting I	3
ART 231 Airbrush Painting II	3
ART 235 Watercolor Painting I	3
ART 236 Watercolor Painting II	3
ARTI 210 Illustration I, Traditional Techniques	3
ARTI 220 Illustration II Digital Techniques	3
PHOT 110 Basic 35mm Color Photo	3

**Three-Dimensional Arts**

Programs are designed to enable the student to acquire skills in producing marketable fine art for gallery exhibition and commissions, enter into the commercial area, and serve as a preparation for transfer to a four-year college or university. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

Three-dimensional arts majors may select an emphasis in ceramics, crafts, glass, jewelry and metalsmithing, or sculpture, within the program requirements.

**A.A. Degree Major**

**Program Requirements**

	<b>Units</b>
ART 101 Methods and Materials	3
ART 102 Drawing and Composition I	3
ART 104 Design and Composition	3
ART 105 3-Dimensional Form and Design	3
ART 165 History of Art I	3
ART 166 History of Art II	3
Emphasis Requirements	22-24.5
Final Art Portfolio Review	0
<b>TOTAL UNITS</b>	<b>40 – 42.5</b>

***Emphasis in Ceramics***

	<b>Units</b>
<b>Emphasis Requirements</b>	
ART 135 Ceramics I	3
ART 136 Ceramics II	3
ART 250 Ceramics III	3
ART 260 Sculpture I	3
ART 265 Ceramic Sculpture I	3
ART 266 Ceramic Sculpture II	3

**Electives (Select 6 units)**

ART 137 Pottery Production	3
ART 140 Foundry Techniques/Sculpture I	3
ART 147 Design in Enamels	3
ART 160 Glassblowing-Offhand I	3
ART 261 Sculpture II	3
PHOT 100 Elementary Photography	3.5
PHOT 110 Basic 35mm Color Photo	3

***Emphasis in Crafts***

	<b>Units</b>
<b>Emphasis Requirements</b>	
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/Metalsmithing Design I	3
ART 260 Sculpture I	3

**Electives (Select 6 units)**

ART 136 Ceramics II	3
ART 140 Foundry Techniques/Sculpture I	3
ART 151 Jewelry/Metalsmithing Design II	3
ART 155 Stained Glass I	3
ART 261 Sculpture II	3
ART 270 Jewelry/Metalsmithing Design III	3
ART 275 Stained Glass II	3
PHOT 100 Elementary Photography	3
PHOT 110 Basic 35mm Color Photo	3

***Emphasis in Glass***

	<b>Units</b>
<b>Emphasis Requirements</b>	
ART 135 Ceramics I	3
ART 145 Design in Mixed Media	3
ART 155 Stained Glass I	3
ART 160 Glassblowing-Offhand I	3
ART 260 Sculpture I	3
ART 280 Glassblowing-Offhand II	3

**Electives (Select 4-6 units)**

ART 140 Foundry Techniques/Sculpture I	3
ART 146 Design in Wood	3
ART 147 Design in Enamels	3
ART 150 Jewelry/Metalsmithing Design I	3
ART 275 Stained Glass II	3
ART 276 Cold Glass Design	1
ART 277 Glass Casting	1
PHOT 110 Basic 35mm Color Photo	3

***Emphasis in Jewelry and Metalsmithing***

	<b>Units</b>
<b>Emphasis Requirements</b>	
ART 145 Design in Mixed Media	3
ART 147 Design in Enamels	3
ART 150 Jewelry/Metalsmithing I	3
ART 151 Jewelry/Metalsmithing II	3
ART 205 Indirect Metal Forming	3
ART 270 Jewelry/Metalsmithing III	3

**Electives (Select 6 units)**

ART 135 Ceramics I	3
ART 140 Foundry Techniques/Sculpture I	3
ART 146 Design in Wood	3
ART 260 Sculpture I	3
ART 265 Ceramic Sculpture I	3
PHOT 110 Basic 35mm Color Photo	3

***Emphasis in Sculpture***

	<b>Units</b>
<b>Emphasis Requirements</b>	
ART 135 Ceramics I	3
ART 140 Foundry Techniques/Sculpture I	3
ART 260 Sculpture I	3
ART 261 Sculpture II	3
ART 265 Ceramic Sculpture I	3
ART 266 Ceramic Sculpture II	3

**Electives (Select 6 units)**

ART 136 Ceramics II	3
ART 145 Design in Mixed Media	3
ART 150 Jewelry and Metalsmithing I	3
ART 160 Glassblowing-Offhand I	3
ART 205 Indirect Metal Forming	3
ART 255 Foundry Techniques/Sculpture II	3
PHOT 110 Basic 35mm Color Photo	3

**COURSE OFFERINGS**

An activity may be taken four times for credit. Activity is defined to include all ability levels. (e.g., A student may take a total of only four Ceramics courses for credit.) Ceramics and Jewelry and Metalsmithing classes are defined as activity courses.

**ART 100 Introduction to Art (3)**

*3 hours lecture*

**Transfer acceptability:** CSU; UC

Promotes an understanding and appreciation of art through slide-lectures, discussion, and museum visits. For non-art majors.

**ART 101 Methods and Materials (3)**

*6 hours lecture/laboratory*

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

Introduction to the aesthetic and technical potential of a variety of materials and methods basic to various art disciplines. Concentration on the skills needed to use these materials in a two- and three-dimensional art.

**ART 102 Drawing and Composition I (3)**

*6 hours lecture/laboratory*

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC; CAN ART 8

A basic studio course in the media and technique of drawing. An introduction to pictorial structure, visual elements, use of perspective, and rendering and sketching techniques. This course is designed to develop skills for both commercial and fine arts.

**ART 103 Drawing and Composition II (3)**

*6 hours lecture/laboratory*

**Prerequisite:** ART 102

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC

The development of subject and theme concepts with varied approaches to composition and the use of media. Introduction to abstract composition and mixed media techniques as a preliminary to painting.

**ART 104 Design and Composition (3)**

*6 hours lecture/laboratory*

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC; CAN ART 14

Basic instruction in flat design. The study of line, color, value, shape, texture, form, and the principles of composition. Experience in a variety of media. Essential to students of fine and commercial art, photography, graphic arts, architectural, and interior design.

- ART 105 Three-Dimensional Form and Design (3)**  
*6 hours lecture/laboratory*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC; CAN ART 16*  
 Basic instruction in sculptural forms and structures. A variety of media is explored.
- ART 120 Life Drawing and Composition I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *A minimum grade of "B" in at least one semester of a college-level drawing course*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC; CAN ART 24*  
 A basic course in the fundamentals of drawing the human figure. The use of the figure as an element of both naturalistic and expressive rendering.
- ART 121 Life Drawing and Composition II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 120*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC—Credit Limitations*  
 An exploration of the human figure as the basic subject of creative and experimental composition.
- ART 123 Arts Across the Curriculum (3)**  
*3 hours lecture*  
**Note:** *Cross listed as: DNCE/MUS/TA 123*  
**Transfer acceptability:** *CSU*  
 This course is an introduction to the artistic creative process through a comparative study of dance, music, theatre, and visual arts, within a social and cultural context. The principles of artistic perception, creative expression, cultural and historical context, and aesthetic valuing will be discussed.
- ART 125 Head Drawing (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 102 or ART 100*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC*  
 Introduction to human head drawing. Special emphasis on techniques designed to illustrate musculoskeletal relationships that distinguish differences in age, sex, and personality.
- ART 130 Printmaking I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 102*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC; CAN ART 20*  
 Introduction to the techniques of etching, aquatint, drypoint, photo engraving, and wood and linoleum cuts. Problems in multicolor intaglio and multicolor relief printing. Design and composition in relation to the media will be emphasized.
- ART 131 Printmaking II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 130*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC*  
 Continued practice in the creation of fine prints. Mixed media and the photointaglio process are explored.
- ART 132 Lithography and Experimental Printmaking (1)**  
*2 hours lecture/laboratory*  
**Prerequisite:** *ART 102*  
**Note:** *May be taken 2 times*  
 Introduction to the techniques of plate lithography and experimental lithographic processes.
- ART 133 Etching (1)**  
*2 hours lecture/laboratory*  
**Prerequisite:** *ART 102*  
**Note:** *May be taken 2 times*  
 Introduction to the techniques of etching, aquatint and drypoint.
- ART 135 Ceramics I (3)**  
*6 hours lecture/laboratory*  
**Note:** *May be taken 2 times; maximum of 4 completions in any combination of ART 135, ART 136, ART 250*  
**Transfer acceptability:** *CSU; UC; CAN ART 6*  
 An introduction to basic forming techniques in clay and various surface treatments.
- ART 136 Ceramics II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 135*  
**Note:** *May be taken 2 times; maximum of 4 completions in any combination of ART 135, ART 136, ART 250*  
**Transfer acceptability:** *CSU; UC*  
 Advanced studies in handbuilding and wheel throwing techniques. Continuing study of various surface techniques. Techniques of glaze and facility maintenance.
- ART 137 Pottery Production (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 135*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU*  
 Wheel throwing production, kiln use and construction, mixing and maintaining glazes, studio maintenance, decorative techniques, and marketing skills and techniques.
- ART 138 Ceramic Surface Decoration (1)**  
*2 hours lecture/laboratory*  
**Recommended preparation:** *ART 135, 136, and 250*  
 A study of ceramic surface treatments and decorative techniques.
- ART 139 Raku Techniques (1)**  
*2 hours lecture/laboratory*  
**Recommended preparation:** *ART 135, 136, and 250*  
**Note:** *May be taken 2 times*  
 Exploration of the raku ceramic process and related earthenware decorative techniques.
- ART 140 Foundry Techniques in Sculpture I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 105*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU*  
 Theory and practice in casting skills using foundry techniques.
- ART 145 Design in Mixed Media (3)**  
*6 hours lecture/laboratory*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC*  
 Design and production of useful "one-of-a-kind" or "limited edition" objects of art. Attention to the visual as well as structural character of chosen materials. Media may include wood, metal, fibers, plastics, and bone and leather alone or in combination.
- ART 146 Design in Wood (3)**  
*6 hours lecture/laboratory*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU; UC*  
 Explores in depth the sculptural and functional qualities of wood. Original designs may include useful forms such as furniture, containers, and architectural ornaments as well as fantasy forms. Benefits students of three-dimensional art and wood technology.
- ART 147 Design in Enamels (3)**  
*6 hours lecture/laboratory*  
**Recommended preparation:** *ART 104*  
**Note:** *May be taken 2 times*  
**Transfer acceptability:** *CSU*  
 Exploration of the creative and aesthetic possibilities of enameling. Principles and techniques in two- and three- dimensional designs.
- ART 150 Jewelry and Metalsmithing Design I (3)**  
*6 hours lecture/laboratory*  
**Note:** *Maximum of 4 completions in any combination of ART 150, ART 151, ART 270*  
**Transfer acceptability:** *CSU*  
 Projects in two- and three-dimensional jewelrymaking and metalsmithing. Study of the relationship of design to materials and of contemporary metal working techniques.
- ART 151 Jewelry and Metalsmithing Design II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** *ART 150*

**Note:** May be taken 2 times; maximum of 4 completions in any combination of ART 150, ART 151, ART 270

**Transfer acceptability:** CSU

Exploration of manipulation of metal and surface decoration including stone setting.

**ART 155 Stained Glass I (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 104

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

Introduction to the materials and processes involved in the creation of flat glass objects. Emphasis on design potential and creative possibilities of the medium.

**ART 160 Glassblowing-Offhand I (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 104 or 105

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

The study of the properties and structure of glass and materials, equipment, and techniques used to work it in offhand method.

**ART 165 History of Art I: Survey of Western Art (3)**

3 hours lecture

**Transfer acceptability:** CSU; UC; CAN ART 2; ART 165+166=CAN ART SEQ A

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; CAN ART 4; ART 165+166=CAN ART SEQ A

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

**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 20<sup>th</sup> century.

**ART 182 Introduction to Arts Management (3)**

9 hours laboratory

**Note:** Cross listed as AMS 182, DNCE 182, MUS 182, and 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:** AMS/DANCE/MUS or TA 182

**Note:** Cross listed as AMS 183, DNCE 183, MUS 183, and TA 183

**Transfer acceptability:** CSU

Practical experience in arts management in the visual and performing arts.

**ART 197A Topics in Art – Printmaking (.5-3)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory,

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

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Short and extended term lecture workshops or laboratory courses in various specialized aspects of printmaking.

**ART 197B Topics in Art – Painting (.5-3)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Short and extended term lecture-workshops or laboratory courses in various specialized aspects of painting.

**ART 197C Topics in Art – Glass (.5-3)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU

Short and extended term lecture workshops or laboratory courses in various specialized aspects of glass.

**ART 197D Topics in Art – Ceramics (.5-3)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Short and extended term lecture workshops or laboratory courses in various specialized aspects of ceramics.

**ART 197E Topics in Art – Sculpture (.5-3)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to class schedule.

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Short and extended term lecture workshops or laboratory courses in various specialized aspects of sculpture.

**ART 197F Topics in Art – Drawing (.5-3)**

1 to 6 hours lecture/laboratory

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU

Short and extended term lecture-workshops or laboratory courses in various aspects of drawing techniques.

**ART 197G Topics in Art – Computer Art (.5-3)**

1 to 6 hours lecture/laboratory

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU

Short and extended term lecture-workshops or laboratory courses in which a teacher utilizes and teaches special computer hardware/software relationships and processes to produce art.

**ART 197H Topics in Art – General (.5-3)**

1 to 6 hours lecture/laboratory

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU

Short and extended term lecture-workshops or laboratory courses in various aspects of art. Course title will designate subject covered.

**ART 200 Color/Light and Theory (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 102 and 104

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC

Investigations into the phenomenon of color and its use in art. Problems involving color and design in various media, including

acrylics and collage. Exploration of the role of color in Western art from late 19th Century to the present.

- ART 205 Indirect Metal Forming (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 150 or 260  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU  
 Exploration of indirect metal forming in jewelry and small sculpture. Projects in lost wax centrifugal and gravity casting, electroforming, and metal spraying.
- ART 213 Illustration/Life Drawing (1)**  
*2 hours lecture/laboratory*  
**Note:** May be taken 3 times  
**Transfer acceptability:** CSU  
 The study of techniques used in drawing and painting from both nude and costumed models.
- ART 214 Head Painting (1)**  
*2 hours lecture/laboratory*  
**Note:** May be taken 3 times  
**Transfer acceptability:** CSU  
 Introduction to painting techniques as they apply to the human head. Critical analysis and application of color theory and mixing principles. Analysis of human facial planes, proportion and bone structure in the application of either oil or acrylic paint.
- ART 220 Oil Painting I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** Completion of, or concurrent enrollment in, ART 103 and 200  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC; CAN ART 10  
 Fundamental methods and concepts of studio painting using oil color as the primary medium. Concentration on gaining technical skills in pictorial composition, subject interpretation, brush handling, and the use of color. Exploration of historical and contemporary styles, attitudes, and techniques.
- ART 221 Oil Painting II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 220  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC  
 Advanced projects in the concepts and techniques of oil painting with concentration on individual creative progress and development.
- ART 225 Acrylic Painting I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** Completion of, or concurrent enrollment in, ART 103 and 200  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC  
 Concepts of studio painting utilizing acrylic based colors as the primary medium. Exploration of different styles and techniques with emphasis on contemporary modes of expression. Concentration on gaining skills in composition, brush handling, and the use of color.
- ART 226 Acrylic Painting II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 225  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC  
 Advanced projects in the concepts and techniques of acrylic painting with emphasis on individual creative progress and development.
- ART 230 Airbrush Painting I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** Completion of, or concurrent enrollment in, ART 103 and 200  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU  
 Emphasis on developing skills in airbrush painting and masking techniques for use in fine arts, commercial art, and photo retouching. The theory, use, and maintenance of airbrushes and associated equipment.
- ART 231 Airbrush Painting II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 230  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU  
 Creative approaches to airbrush painting. A continued study of airbrush techniques used in fine arts, commercial art, and photo retouching.
- ART 235 Watercolor Painting I (3)**  
*6 hours lecture/laboratory*  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC  
 Fundamental approaches to the use of watercolors and other waterbase paints in creative painting. Concentration on both literal and expressive modes utilizing a variety of subjects.
- ART 236 Watercolor Painting II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 235  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU; UC  
 Advanced work in watercolor media.
- ART 241 Computer Graphics (3)**  
*6 hours lecture/laboratory*  
**Recommended Preparation:** ARTD 150  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU  
 Two dimensional graphics applications of the computer using Adobe Photoshop software. Explore relationship between computer media and traditional art media. Digital image processing and storage, digital painting methods and layout generation. Technical issues pertaining to generation of digital art.
- ART 244 Illustration II Digital Techniques (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ARTD 150  
**Recommended preparation:** ART 241  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU  
 An introduction to concepts and techniques used in the field of digital illustration. Critical thinking and visual problem solving using digital tools as well as the translation of traditional theory and principles will be stressed. Emphasis will be placed on the integration of several computer software programs and traditional media as a means of communicating and applying ideas into the various commercial art marketplaces.
- ART 248 Character Animation (1.5)**  
*3 hours lecture/laboratory*  
**Note:** May be taken 3 times  
**Transfer acceptability:** CSU  
 Fundamentals of character animation and design. Hands on experience creating hand drawn animations. Drawings are scanned and assembled on the computer. Final output is transferred onto videotape.
- ART 250 Ceramics III (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 136  
**Note:** May be taken 2 times; maximum of 4 completions in any combination of ART 135, ART 136, ART 250  
**Transfer acceptability:** CSU; UC  
 Creative and experimental handbuilding, advanced throwing, firing techniques, glaze evaluation, and special research.
- ART 255 Foundry Techniques in Sculpture II (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** ART 140  
**Note:** May be taken 2 times  
**Transfer acceptability:** CSU  
 Advanced theory and practices in casting skills using foundry techniques.
- ART 260 Sculpture I (3)**  
*6 hours lecture/laboratory*  
**Prerequisite:** Completion of, or concurrent enrollment in, ART 102 and 105

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC; CAN ART 12

Design and fabrication of expressive three-dimensional forms. Exploration of both historical and contemporary sculptural materials with emphasis on 20th Century models of expression.

**ART 261 Sculpture II (3)**

6 hours lecture/laboratory 3

**Prerequisite:** ART 260

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC

Advanced projects in the concept and creation of original sculpture.

**ART 265 Ceramic Sculpture I (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 102 or 104 or 105, and ART 135

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC

Creative projects and experimentation using clay as the primary material for non-utilitarian expressive forms.

**ART 266 Ceramic Sculpture II (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 265

**Note:** May be taken 2 times

**Transfer acceptability:** CSU; UC

Advanced problems in creative and experimental uses of clay for non-utilitarian expressive forms.

**ART 270 Jewelry and Metalsmithing Design III (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 151

**Note:** May be taken 2 times; maximum of 4 completions in any combination of ART 150, ART 151, ART 270

**Transfer acceptability:** CSU

Continued exploration of the manipulation of metal. Advanced projects in jewelry and metalsmithing.

**ART 275 Stained Glass II (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 155

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

Creative expression in flat glass. Emphasis on architectural and fine arts application of the medium. Painting, enameling, and etching techniques will be explored in depth.

**ART 276 Cold Glass Design (1)**

2 hours lecture/laboratory

**Note:** May be taken 3 times

**Transfer acceptability:** CSU

Applications of the materials and processes involved in the production of flat glass materials. Emphasis is on the design of stained glass and problem solving during fabrication of designs.

**ART 277 Glass Casting (1)**

2 hours lecture/laboratory

**Note:** May be taken 3 times

**Transfer acceptability:** CSU

The study of the properties of molten glass as applied to glass casting. The acquisition of knowledge through problem solving using open face glass casting techniques.

**ART 280 Glassblowing-Offhand II (3)**

6 hours lecture/laboratory

**Prerequisite:** ART 160

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

Advanced problems in the creation of fine blown glass.

**ART 295 Directed Study in Art (1,2,3)**

3, 6, or 9 hours laboratory

**Prerequisite:** 18 units of college-level art including ART 102, 104 or 105, 165, and 166, and instructor's approval of proposed project or research

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU; UC - Credit determined by UC upon review of course syllabus.

Independent study for advanced students dealing with projects or research in areas not covered by regular classes. Students will work

under the guidance of an instructor.

**ART 296 Special Projects (1,2,3)**

2, 4, or 6 hours lecture/laboratory

**Prerequisite:** A minimum grade of "B" in 6 units of college-level course work in a specialized area of art, and instructor's approval of the proposed project

**Note:** May be taken 4 times for a maximum of 9 units

**Transfer acceptability:** CSU; UC- Credit determined by UC upon review of course syllabus.

A course for the student who has demonstrated a proficiency in art and wishes to work beyond existing classes or desires to pursue a project which does not fit into the context of existing classes. Students will work directly with an instructor.