
11 Courses of Instruction

Course Numbering System

1-039	Non-degree Credit Courses
040-099	Degree Applicable Non-Transfer Courses
100-290*	Degree Applicable and Transfer level courses
299	Directed Studies
300-499	Upper Division Courses

*Courses numbered 100 and above are usually university parallel courses and are offered for transfer to colleges and universities. See course descriptions for any restrictions on transfer.
**FAC and PAC 4300 Series are non-transferable.

Code for Transferability of Courses

Where applicable, transferability of listed courses is designated by boldface symbols:

UC – Transfers to all University of California campuses and to most other four-year colleges.

UC (Credit Limit - See Counselor)

– Transfers to all University of California campuses and to most other four-year colleges, but there are limitations to the number of units that can be accepted for credit. The student should consult a counselor for details.

CSU Transfers to all campuses of the California State University system and to many other four-year colleges.

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example COMM 110, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to www.assist.org to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. Counselors can always help students interpret or explain this information.

If a course has been approved for C-ID, you will find the corresponding C-ID number next to the course prefix and number within the course descriptions on the following pages. More courses may have been approved for C-ID since the publication of this catalog.

More courses may have been approved for C-ID since the publication of this catalog. You can also see C-ID approvals for Rio Hondo College at ASSIST.org or C-ID.net.

CID Descriptor	RHC Course(s)	Course Title
ACCT 110	ACCT 101	Financial Accounting
ACCT 110	ACCT 101H	Financial Accounting Honors
ACCT 120	ACCT 102	Managerial Accounting
AJ 110	AJ 101	Introduction to Administration of Justice
AJ 120	AJ 106	Criminal Law I
AJ 122	AJ 102	Criminal Procedures
AJ 124	AJ 104	Legal Aspects of Evidence
AJ 140	AJ 208	Principles of Investigation
AJ 150	AJ 275	Introduction to Forensic Science
AJ 160	AJ 105	Community Relations/Multicultural Issues Within Public Service
AJ 200	CORR 101	Introduction to Corrections
AJ 220	AJ 207	Juvenile Law and Procedure
ALTF 100X	AUTO 147	Introduction to Hybrid and Electric Vehicle Technology
ANTH 110	ANTH 101	Introduction to Physical Anthropology
ANTH 110	ANTH 101H	Introduction to Physical Anthropology Honors

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
ANTH 115L	ANTH 101L	Physical Anthropology Lab
ANTH 120	ANTH 102	Introduction to Cultural Anthropology
ANTH 120	ANTH 102H	Introduction to Cultural Anthropology Honors
ANTH 130	ANTH 104	Introduction to Language and Culture
ANTH 150	ANTH 103	Introduction to Archaeology
ARTH 100	ART 110	Understanding Visual Art
ARTH 110	ART 105	Survey of Western Art: Prehistory through the Middle Ages
ARTH 110	ART 105H	Survey of Western Art: Prehistory through the Middle Ages Honors
ARTH 120	ART 106	Survey of Western Art: Renaissance to Contemporary
ARTH 120	ART 106H	Survey of Western Art: Renaissance to Contemporary Honors
ARTH 130	ART 107	The Art of Asia
ARTH 145	ART 104	Art of the Ancient Americas
ARTH 150	ART 112	Visual Art in the Modern Era
ARTS 100	ART 120	Two-Dimensional Design
ARTS 101	ART 121	Three-Dimensional Design
ARTS 110	ART 130	Freehand Drawing I
ARTS 200	ART 230	Beginning Life Drawing
ARTS 205	ART 131	Freehand Drawing II
ARTS 210	ART 135	Beginning Painting
ARTS 250	ART 170	Introduction to Digital Painting
ARTS 270	ART 124	Color Theory
BIOL 110B	BIOL 125	Human Anatomy
BIOL 120B	BIOL 226	Human Physiology
BIOL 135S	BIOL 200	Principles of Biology 1 (Molecular and Cellular Biology), Principles of Biology 2 (Diversity and Ecology)
BIOL 190	BIOL 200	Principles of Biology 1 (Molecular and Cellular Biology)

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
BUS 110	MGMT 101	Introduction to Business
BUS 115	MGMT 208	Business Communications
BUS 120	BUSL 110	Legal Environment in Business
BUS 125	BUSL 220	Business Law
CDEV 100	CD 106	Child Growth and Development
CDEV 110	CD 208	Child, Family and Community
CHEM 110	CHEM 130	General Chemistry
CHEM 120S	CHEM 130, CHEM 140	General Chemistry
CHEM 150	CHEM230	Organic Chemistry I
CHEM 160S	CHEM 230, CHEM 231	Organic Chemistry I, Organic Chemistry II
CMUS 110	MUS 165	Electronic Music I
COMM 110	SPCH 101	Public Speaking
COMM 110	SPCH 101H	Public Speaking Honors
COMM 120	SPCH 140	Argumentation and Debate
COMM 120	SPCH 240	Argumentation and Discussion
COMM 130	SPCH 100	Interpersonal Communication
COMM 150	SPCH 150	Intercultural Communications
COMM 160B	SPCH 110	Forensics: Speech and Debate Team
COMM 170	SPCH 130	Oral Interpretation
COMM 190	SPCH 240	Argumentation and Discussion
ECE 120	CD 110	Principles and Practices of Early Childhood Education
ECE 130	CD 111	Early Childhood Education Curriculum
ECE 200	CD 114	Observation and Assessment
ECE 210	CD 228	Early Childhood Education Practicum
ECE 220	CD 102	Nutrition, Health and Safety for Children
ECE 230	CD 224	Diversity Issues During Early Childhood, School Age and Adolescence

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
ECON 201	ECON 102	Principles of Microeconomics
ECON 201	ECON 102H	Principles of Microeconomics Honors
ECON 202	ECON 101	Principles of Macroeconomics
ECON 202	ECON 101H	Principles of Macroeconomics Honors
EDUC 200	ED 110	Introduction to Teaching
ENGL 100	ENGL 101	College Composition and Research
ENGL 105	ENGL 201	Advanced Composition and Critical Thinking
ENGL 105	ENGL 201H	Advanced Composition and Critical Thinking Honors
ENGL 120	LIT 102H	Approaches to Literature Honors
ENGL 120	LIT 102	Approaches to Literature
ENGL 130	LIT 112A	American Literature
ENGL 130	LIT 112AH	American Literature Honors
ENGL 135	LIT 112B	American Literature
ENGL 135	LIT 112BH	American Literature Honors
ENGL 140	LIT 144A	World Literature
ENGL 145	LIT 144B	World Literature
ENGL 160	LIT 146A	British Literature
ENGL 160	LIT 146AH	British Literature Honors
ENGL 165	LIT 146B	British Literature
ENGL 165	LIT 146BH	British Literature Honors
ENGL 180	LIT 114H	Children's and Adolescent Literature Honors
ENGL 180	LIT 114	Children's and Adolescent Literature
ENGL 200	ENGL 131	Creative Writing
GEOG 110	GEOG 101	Introduction to Physical Geography
GEOG 111	GEOG 101L	Introduction to Physical Geography Laboratory
GEOG 120	GEOG 102	Introduction to Cultural Geography

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
GEOG 125	GEOG 103	World Regional Geography
GEOL 100	GEOL 150	Physical Geology
GEOL 100L	GEOL 151	Physical Geology Laboratory
GEOL 110	GEOL 152	Historical Geology
GEOL 110L	GEOL 152L	Historical Geology Lab
HIST 130	HIST 143	History of the United States to 1877
HIST 130	HIST 143H	History of the United States to 1877 Honors
HIST 140	HIST 144	History of the United States Since 1865
HIST 140	HIST 144	History of the United States Since 1865 Honors
HIST 150	HIST 101	History of World Civilization to the 17th Century
HIST 160	HIST 102	History of World Civilization, 1500 to the Present
ITIS 110	CIT 180	PC Maintenance – A+ Certification
ITIS 150	CIT 210	Cisco Networking I
JOUR 100	MSCM 128	Mass Media in Modern Society
JOUR 110	JOUR 120	Communications Reporting and Writing
JOUR 130	JOUR 241	Newspaper Production I
JOUR 130	JOUR 242	Digital Newspaper Production I
JOUR 131	JOUR 243	Newspaper Production II
JOUR 131	JOUR 244	Digital Newspaper Production II
KIN 100	KIN 194	Introduction to Kinesiology
KIN 101	KIN 193	Standard First Aid and CPR
MATH 110	PSY 190	Statistics for the Behavioral Sciences
MATH 110	MATH 130	Statistics
MATH 110	MATH 130H	Statistics Honors
MATH 120	MATH 140	Mathematics for Elementary Teachers
MATH 140	MATH 170	Elements of Calculus

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
MATH 150	MATH 160	College Algebra
MATH 155	MATH 180	Pre-Calculus
MATH 210	MATH 190H	Calculus I Honors
MATH 210	MATH 190	Calculus I
MATH 220	MATH 191	Calculus II
MATH 230	MATH 250	Calculus III
MATH 240	MATH 270	Differential Equations
MATH 250	MATH 260	Linear Algebra
MATH 851	MATH 175	Plane Trigonometry
MATH 900S	MATH 190 MATH 191	Calculus I and Calculus II
MATH 900S	MATH 190H MATH 191	Calculus I Honors and Calculus II
MUS 100	MUS 133	Music Appreciation
MUS 110	MUS 101	Fundamentals of Music
MUS 125	MUS 106	Musicianship I
MUS 160	MUS 181	Applied Music I
PHIL 100	PHIL 101	Introduction Philosophy
PHIL 100	PHIL 101H	Introduction Philosophy Honors
PHIL 110	PHIL 112	Introduction to Logic
PHIL 120	PHIL 120	Introduction to Ethics
PHIL 130	PHIL 124	History of Philosophy: Ancient
PHIL 140	PHIL 126	History of Philosophy: Modern
PHIL 210	PHIL 115	Symbolic Logic
PHYS 100S	PHY 150 PHY 160	General Physics – I General Physics II
PHYS 105	PHY 150	General Physics – I
PHYS 110	PHY 160	General Physics II

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
PHYS 200S	PHY 211, PHY 212, PHY 213	Physics for Scientists and Engineers I, II, and II
PHYS 205	PHY 211	Physics for Scientists and Engineers I
PHYS 210	PHY 213	Physics for Scientists and Engineers III
PHYS 215	PHY 212	Physics for Scientists and Engineers II
POLS 110	POLS 110	Government of the United States
POLS 110	POLS 110H	Government of the United States Honors
POLS 120	PHIL 128	Introduction to Political Philosophy
POLS 120	PHIL 128H	Introduction to Political Philosophy Honors
POLS 120	POLS 128	Introduction to Political Philosophy
POLS 120	POLS 128H	Introduction to Political Philosophy Honors
POLS 130	POLS 130	Comparative Government
POLS 140	POLS 140	International Relations
PSY 110	PSY 101H	Introduction to Psychology Honors
PSY 110	PSY 101	Introduction to Psychology
PSY 120	PSY 114	Introduction to Abnormal Psychology
PSY 150	PSY 210	Biological Psychology
PSY 150	PSY 210H	Biological Psychology Honors
PSY 180	PSY 112	Lifespan Development
PSY 200	PSY 200	Research Methods in Psychology
SOCI 110	SOC 101	Introduction to Sociology
SOCI 110	SOC 101H	Introduction to Sociology Honors
SOCI 115	SOC 102	Major Social Problems
SOCI 125	PSY 190	Statistics for the Behavioral Sciences
SOCI 130	SOC 114	Marriage, Family and Intimate Relations
SOCI 140	SOC 120	Perspectives of Sex & Gender
SOCI 150	SOC 116	Introduction to Race and Ethnic Relations

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
SOCI 160	SOC 127	Introduction to Criminology
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SPAN 110	SPAN 102	Spanish II
SPAN 200	SPAN 201	Spanish III
SPAN 200	SPAN 201H	Spanish III Honors
SPAN 210	SPAN 202	Spanish IV
THTR 111	THTR 101	Theatre Arts Appreciation
THTR 112	THTR 101	Theatre Arts Appreciation
THTR 113	THTR 105	The History and Development of the Theatre
THTR 113	THTR 105H	The History and Development of the Theatre Honors
THTR 151	THTR 110	Principles of Acting
THTR 152	THTR 111	Principles of Acting
THTR 171	THTR 150	Theatre Crafts I
THTR 173	THTR 153	Stage Lighting
THTR 191	THTR 170	Theatre Rehearsal and Performance
THTR 192	THTR 159	Stage Crew Activity

*More courses may have been approved for C-ID since the publication of this catalog.
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ACCOUNTING

Division of Business

ACCT 100

Introduction to Accounting

Advisory: READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; MGMT 052

Transfers to: CSU

This course provides basic knowledge of accounting terms, concepts, and procedures for a sole proprietorship form of business. Topics include the analysis and recording of business transactions for service and merchandising firms, and the preparation of simple financial statements. Accounting for cash, sales, purchases, payroll, and the end-of-the-year procedures are presented. This course is designed for the occupationally-oriented students or those preparing for Financial Accounting and Computerized Accounting.

3 Units

54 Lecture hours

ACCT 101 (C-ID ACCT 110)

Financial Accounting

Advisory: READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; ACCT 100; MGMT 052

Transfers to: UC, CSU

This course is the study of accounting as an information system and how information is used by investors, creditors, and other external users to make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the financial statements, and statement analysis. Topics include issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics. This course is required of all accounting and business administration majors.

4 Units

72 Lecture hours

ACCT 101H (C-ID ACCT 110)

Financial Accounting Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; ACCT 100; MGMT 052

Transfers to: UC, CSU

This course is the study of accounting as an information system and how information is used by investors, creditors, and other external users to

make decisions. The course covers the accounting information system, including recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, financial statements, and statement analysis. Topics include issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls, and ethics. This course is required of all accounting and business administration majors. This course is intended for students eligible for the Honors Program.

4 Units

72 Lecture hours

ACCT 102 (C-ID ACCT 120)

Managerial Accounting

Prerequisite: ACCT 101

Advisory: READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: UC, CSU

This course introduces students to the fundamentals of managerial accounting for decision making. This course is the study of how managers use accounting information in decision-making, planning, directing and controlling operations. The course focuses on the flow of costs in a manufacturing environment, cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis. Topics include issues relating to cost systems, cost control, profit planning, and performance analysis in manufacturing environments. This course is required of all accounting and business majors.

4 Units

72 Lecture hours

ACCT 103

Payroll Accounting

Advisory: READ 043 or appropriate assessment; ACCT 100 or 101

Transfers to: CSU

This course combines basic accounting skills with specialized training in payroll accounting to prepare students for entry-level positions within the payroll segment of accounting. This course is designed for accounting majors and those interested in pursuing an entry-level position within the payroll segment of accounting. This course is a comprehensive overview of federal and state payroll laws and their effect on payroll records and required government reports.

3 Units

54 Lecture hours

ACCT 104

Introduction to Governmental and Not-For-Profit Accounting

Prerequisite: ACCT 101

Advisory: READ 043 or appropriate

assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; MGMT 052

Transfers to: CSU

This course is an introduction to the fundamentals of government and not-for-profit accounting. The emphasis of the course will be placed on accounting for various fund types and restrictions relevant to government and not-for-profit agencies with both theoretical and practical aspects explored. Topics include budgets, revenues, expenditures, tax levies, appropriations, general fund, special fund, and financial statements for government and not-for-profit entities. This course is designed for students interested in furthering their educational requirements for the CPA exam and/or pursuing an entry-level position in government and not-for-profit accounting.

3 Units

54 Lecture hours

ACCT 105

Income Tax Accounting

Advisory: READ 043 or appropriate assessment; ACCT 101

Transfers to: CSU

This course covers Federal and California State income tax laws and preparation as related to individuals and small business entities. Emphasis is placed upon income inclusion, exclusion, exemptions, capital gains and losses, and business and individual deductions. Students who successfully complete the course with at least a "C" grade will be certified by the California Tax Education Council as fulfilling the 60-hour qualifying education requirement (45 federal hours and 15 California hours) imposed by the State of California for becoming a Registered Tax Preparer.

4 Units

72 Lecture hours

ACCT 106

Computerized Accounting

Advisory: READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; ACCT 100; ACCT 101

Transfers to: CSU

This course is designed to provide students with a sound basic knowledge of how computerized integrated accounting systems function. Students will be processing accounting data using receivables, payables, inventory, payroll and project modules. This course is designed for accounting majors, those interested in starting a small business, and those interested in pursuing entry-level positions in the field of accounting.

3 Units

36 Lecture hours

54 Lab hours

ACCT 107

Accounting Ethics

Prerequisite: ACCT 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to professional ethics in the accounting and business environments. This course will cover principles and core philosophies of ethics by examining accountants' role in different aspects of the accounting profession such as auditing, management and taxation. It will prepare students to develop their framework for making ethical decisions in their profession by learning how to ask questions and analyze ethical issues encountered in the accounting field. This course is designed for students pursuing an accounting certificate or degree, and for students looking to satisfy the accounting ethics requirement for the CPA exams.

3 Units

54 Lecture hours

ACCT 108

Volunteer Income Tax Assistance Program I

Advisory: READ 043 or appropriate assessment; ACCT 105

Transfers to: CSU

This is the first course in a sequence of two courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Rio Hondo. This course will cover Federal and California tax theories and laws appropriate for the current tax year, and students will apply their knowledge by taking the IRS exams for VITA volunteers. Upon successful completion of the IRS VITA Basic and Intermediate exams, the students will be able to assist low-income individuals and families with tax return preparation through the VITA program for the current year.

1 Unit

18 Lecture hours

ACCT 109

Volunteer Income Tax Assistance Program II

Prerequisite: ACCT 108

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This is the second course in a sequence of two courses designed for students who want to volunteer in the Volunteer Income Tax Assistance (VITA) program at Rio Hondo. This course will allow students who have successfully passed ACCT 108 to apply their tax knowledge by assisting low-income individuals and families with tax return preparation through the VITA program for the current year. Students will learn to use the TaxWise software to accu-

rately file individual federal and state income tax returns within the scope of the VITA program. Students will learn how to develop a system of quality control for actual taxpayer returns as well as develop their communication skills through interviews of taxpayers and explanation of tax return results.

1 Unit

54 - Lab hours

ACCT 203

Introduction to Cost Accounting

Prerequisite: ACCT 101

Advisory: READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

Introduction to Cost Accounting takes a logical approach to the fundamentals of cost accounting as applied to a manufacturing business, and the use of cost data in management decisions. Principles and procedures of cost systems are presented first in an overview, then discussed and illustrated in detail. The course provides thorough coverage of job order costing, process costing, and standard costs. Analysis of cost data is integrated with discussions of cost accounting systems and procedures. Students will also evaluate both quantitative and qualitative data to assist management with strategic decision-making, planning, and controlling. This course is designed for accounting majors and those interested in furthering their knowledge and understanding of managerial accounting.

3 Units

54 Lecture hours

ACCT 290

Cooperative Work Experience/Internship for Accounting Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Accounting and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

ACCT 299

Directed Study: Accounting

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

ADMINISTRATION OF JUSTICE

Division of Public Safety

AJ 041

Effective Written Communications for Public Service Personnel

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101

This course is designed to provide Administration of Justice or other interested students with intensive training in communication of facts and information of ideas in simple, clear, logical English. An emphasis will be placed on spelling, correct usage of words, sentence structure, critical reading and discussion, cre-

ative thinking, techniques of observation, and other skills that lead to good writing. Topics include organization of ideas and are combined with an abundant practice in the writing of effective reports, bulletins, memos, letters, and other short papers.

3 Units

54 Lecture hours

AJ 060

Basic Firearms

Prerequisite: Department of Justice (DOJ) clearance

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101

This course is designed for students interested in learning the proper use and storage of firearms. This course consists of instruction and demonstration in the safe handling, firing and care of firearms, related matters of legal liabilities, moral responsibilities and safety. The basics of marksmanship and range procedures are taught and the student is supervised in comprehensive scheduled range firing exercises. Introductory demonstrations in the operation of the police shotgun and semiautomatic weapons are also presented.

1 Unit

9 Lecture hours

27 Lab hours

AJ 070

Advanced Firearms

Prerequisite: AJ 060 and Department of Justice (DOJ) clearance

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101

This course is designed to acquaint Administration of Justice or other interested students with the legal provisions and safety precautions associated with the use of firearms. A pistol match competition will be arranged by the instructor. The course laboratory work provides supervised instruction in the firing of handguns and shotguns.

2 Units

18 Lecture hours

54 Lab hours

AJ 101 (C-ID AJ 110)

Introduction to Administration of Justice

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces students to the characteristics of the criminal justice system in the United States. Focus is placed on examining crime measurement, theoretical explanations of crime, responses to crime, components of the system, and current challenges to the system. The course examines the evolution of the prin-

ciples and approaches utilized by the justice system and the evolving forces which have shaped those principals and approaches. Although justice structure and process is examined in a cross cultural context, emphasis is placed on the US justice system, particularly the structure and function of US police, courts and corrections. Students are introduced to the origins and development of criminal law, legal process, sentencing, and incarceration policies.

3 Units

54 Lecture hours

AJ 102 (C-ID AJ 122)

Criminal Procedures

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to provide Administration of Justice or other interested students with an in-depth study of the legal responsibilities of law enforcement. An emphasis will be placed on the judicial segment of the administration of justice system. Topics include laws of arrest, custody, past, present, and future analysis of the procedures for each subsystem within the administration of justice system from initial entry to final disposition. The relationship each segment maintains with system members will also be covered.

3 Units

54 Lecture hours

AJ 104 (C-ID AJ 124)

Legal Aspects of Evidence

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101

Transfers to: CSU

This course is designed to provide Administration of Justice or other interested students with an in-depth study of evidence rules. An emphasis will be placed on the application of rules in preparing and presenting evidence. The course will discuss the history and approach to the study of evidence. Topics include proof by evidence and substitutes, general admissibility tests, evidence by way of witness testimony, documents, real evidence, and exclusion of evidence on constitutional grounds. For a better understanding of the evidence rules, judicial decisions are cited and students will be required to brief cases.

3 Units

54 Lecture hours

AJ 105 (C-ID AJ 160)

Community Relations/MultiCultural Issues Within Public Service

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment; AJ 101

Transfers to: UC, CSU

This course examines the complex, dynamic relationship between communities and the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse multicultural population. Topics covered may include crime prevention, restorative justice, conflict resolution, and ethics.

3 Units

54 Lecture hours

AJ 106 (C-ID AJ 120)

Criminal Law I

Prerequisite: AJ 101 or completion of PAC 040 or equivalent

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC (credit limit), CSU (*Students will receive credit from UC for only one of the following courses: AJ 106 or AJ 107)*

This course offers an analysis of the doctrines of criminal liability in the United States and the classification of crimes against persons, property, morals, and public welfare. Special emphasis is placed on the classification of crime, the general elements of crime, the definitions of common and statutory law, and the nature of acceptable evidence. This course utilizes case law and case studies to introduce students to criminal law. The completion of this course offers a foundation upon which upper-division criminal justice courses will build. The course will also include some limited discussion of prosecution and defense decision making, criminal culpability, and defenses to crimes.

3 Units

54 Lecture hours

AJ 107

Criminal Law II

Prerequisite: AJ 101 or completion of PAC 040 or equivalent

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC (credit limit), CSU (*Students will receive credit from UC for only one of the following courses: AJ 106 or AJ 107.)*

This course is designed to provide Administration of Justice or other interested students with a comprehensive discourse on criminal statutes and their definition. Topics include classification as applied to the system of administration of justice, crimes against persons, property, general statutes, and health and safety statutes as well as other state and federal laws.

3 Units

54 Lecture hours

AJ 207 (C-ID AJ 220)**Juvenile Law and Procedure**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course is designed to provide Administration of Justice or other interested students with techniques for handling juvenile offenders and victims. An emphasis will be placed on the prevention and repression of delinquency, diagnosis and referral of juvenile offenders, and organization of community resources. Juvenile law and juvenile court procedures will be contrasted with adult law procedures.

3 Units**54 Lecture hours****AJ 208 (C-ID AJ 140)****Principles of Investigation**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course addresses the techniques, procedures, and ethical issues in the investigation of crime, including organization of the investigative process, crime scene searches, interviewing and interrogating, surveillance, source of information, utility of evidence, scientific analysis of evidence and the role of the investigator in the trial process.

3 Units**54 Lecture hours****AJ 215****Vice and Narcotics Control**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of code and case law of vice and narcotics. The course will focus on detection, suppression, apprehension, and prosecution of violators. Special emphasis will be placed on laws dealing with gambling, prostitution, sex crimes, narcotic identification, and search and seizure.

3 Units**54 Lecture hours****AJ 228****Police Field Operations**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of the history and development of Police Field Operations. Particular emphasis is placed

on the planning of field activities.

Topics include the functions of patrol, traffic and other preliminary investigative duties of the field officer. The techniques of planning for patrol operations, handling of requests for service, vehicular traffic-related problems, and civil and domestic disturbances are also presented in the course.

3 Units**54 Lecture hours****AJ 250****Contemporary Issues in the Criminal Justice System**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101; AJ 102
Transfers to: CSU

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of personal and organizational values, beliefs, attitudes and ethics as they affect contemporary issues in the Criminal Justice System. Particular emphasis is placed on the historical foundations which serve as a basis of contemporary decision making. Specific issues to be used in the discussions will vary from semester to semester.

3 Units**54 Lecture hours****AJ 275 (C-ID AJ 150)****Introduction to Forensic Science**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to prepare Administration of Justice, Forensic Science, and California Peace Officer students for the Forensic Science Identification Program. This course provides an introduction to the role of forensics in criminal investigations. It examines the methods utilized in the forensic analysis of crime scenes, pattern evidence, instruments, firearms, questioned documents and controlled substances.

3 Units**54 Lecture hours****AJ 290****Cooperative Work Experience/Internship for Administration of Justice Related Fields**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course supports and reinforces on-the-job training in the Administration of Justice field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Law Enforcement

and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Law Enforcement or Administration of Justice and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
 3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
 3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units**3 Lecture hours****60 to 300 Other hours****AJ 299****Directed Study: Administration of Justice**

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units**54 to 162 Lab hours**

ALTERNATIVE ENERGY TECHNOLOGY

Division of Career &
Technical Education

AET 120

Introduction to Alternative Energy Technology (Same as ET 120)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This course is an introductory course that will examine the theory behind present day energy systems which will include an in-depth analysis of the design and installation of alternate energy systems. Topics will include: solar electrical systems, wind electrical systems, solar water heating systems, wind mechanical systems, small hydro-electrical systems, and conservation methods used to save energy. Also presented are topics on geothermal energy, fuel cells, biomass systems, and applications of alternate energy in transportation, industrial, commercial, and residential systems. Students will collect solar data using an irradiance meter and determine power consumption of a typical residence to develop an alternative energy solution. This course is intended for students that are contemplating a career in the alternative energy industry.

3 Units

45 Lecture hours

27 Lab hours

AET 121

Photovoltaic Systems Design and Installation (Same as ET 121)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is an introductory course that will examine and implement the design and installation of solar photovoltaic power systems, which will include the installation of a working solar photovoltaic power system. Students will learn how to perform solar site evaluations, electrical load calculations, solar system size calculations, and installation techniques for grid-tie and off-the-grid photovoltaic systems. This course is designed to prepare the student for the North American Board of Certified Energy Practitioners (NABCEP) Entry Level Exam. This course is intended for stu-

dents that are contemplating a career in the solar photovoltaic energy industry.

3 Units

45 Lecture hours

27 Lab hours

AET 122

Advanced Photovoltaic Systems Design and Installation (Same as ET 122)

Prerequisite: AET/ET 121

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is the second course in the photovoltaic series that will further examine and implement the design and installation of solar photovoltaic power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning photovoltaic installations. The topics include code compliant wiring of modules, inverters, charge controllers, batteries, grounding techniques and related topics. Additional topics include the design and installation of large commercial photovoltaic systems. This course is intended for students that are interested in a career in the solar photovoltaic energy industry.

3 Units

45 Lecture hours

27 Lab hours

AET 123

Wind Energy Systems Design and Installation (Same as ET 123)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is an introductory course that will examine and implement the design and installation of wind power systems which will include the installation of a working wind generation power system. Students will learn how to perform wind site evaluations, electrical load calculations, wind system size calculations, hydraulics fundamentals, basic aerodynamics, and installation techniques for wind power generation systems. Students will learn how to design and install wind power generation system and obtain skills for employment. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

3 Units

45 Lecture hours

27 Lab hours

AET 124

Advanced Wind Energy Systems Design and Installation (Same as ET 124)

Prerequisite: AET/ET 123

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is the second course in the wind energy series that will further examine and implement the design and installation of wind power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning wind power installations. The topics include code compliant wiring of modules, inverters, charge controllers, grounding techniques and related topics. Additional topics include wind site evaluations, electrical load calculations, wind system size calculations, hydraulic fundamentals, basic aerodynamics, and installation techniques for large wind power generation systems. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

3 Units

45 Lecture hours

27 Lab hours

AET 181

Home Energy Management and Auditing (Same as ET 181)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of home energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive home energy audit and energy management program. Emphasis is placed on the following topics: Appliances, Insulation, Designing/Remodeling, Electricity, Landscaping, Lighting, Space Heating and Cooling, Water Heating, Doors/Windows/Skylights, and Home Energy Audits.

3 Units

54 Lecture hours

AET 182

Industrial Energy Management and Auditing (Same as ET 182)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the green

energy field, with an overview of the industrial energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive energy audit and energy management program. Emphasis is placed on the following topics: Types of Energy Audits, Energy Management and Cost, Benchmarking, Energy Performance, Energy Use Requirements, Maximizing System Efficiencies, Optimizing Energy Input Requirements, Fuel and Energy Substitution and Energy Audit Instruments.

3 Units
54 Lecture hours

AET 280

Green Building Design Principles (Same as ET 280)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the green building field, with an overview of the green building industry and its components. Specifically, this course will assist students in their preparation for the Leadership in Energy and Environmental Design Accredited Professional (LEED AP) Examination, which is the most recognized professional accreditation for green building in the nation. Emphasis is placed on the six categories of design that green buildings must address for LEED Certification: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design Process. Each of these categories will be studied, with a focus on the significance of each particular credit.

3 Units
54 Lecture hours

AET 299

Directed Study in Alternative Energy Technology

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Alternative Energy Technology beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value

assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units
54 to 162 Lab hours

AMERICAN SIGN LANGUAGE

Division of Communication & Languages

ASL 101 (Formerly ASL 149)

American Sign Language I

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

This course will provide an introduction to American Sign Language emphasizing receptive and expressive skills. The use of facial expressions during signing will also be addressed. Students will be exposed to deaf culture experiences both in the classroom and in other environments. In addition to classroom discussion, students will receive intensive individualized practice in the language laboratory via interactive websites, video programs, and CD ROMs. This course is designed for people who wish to learn to communicate with those who are deaf and hard of hearing.

4 Units
72 Lecture hours

ASL 102 (Formerly ASL 150)

American Sign Language II

Prerequisite: ASL 101, or two years of high school ASL with a "C" or better, or successfully pass an interview and comprehensive exam developed by the department demonstrating competency of the skills required in an ASL I course.
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

This course will provide a continuation to American Sign Language I emphasizing receptive and expressive skills. The use of facial expressions during signing will also be addressed. Students will be exposed to deaf culture experiences both in the classroom and in other environments. In addition to classroom discussion, students will receive intensive individualized practice in the language laboratory via interactive websites, video programs, and CD ROMs. This course is designed for people who wish to

learn to communicate with those who are deaf and hard of hearing.

4 Units
72 Lecture hours

ASL 201

American Sign Language III

Prerequisite: ASL 102
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: CSU

This course will focus on refining the student's knowledge of the ASL grammatical structure and the lexicon of American Sign Language related to its historical, artistic, and cultural influence in mainstream society with emphasis on receptive/expressive conversational and cultural skills for communication. In addition to classroom discussion, students will receive intensive individualized practice in the language laboratory via interactive websites, video programs, and CD ROMs.

4 Units
72 Lecture hours

ASL 202

American Sign Language IV

Prerequisite: ASL 201
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: CSU

Continuation from ASL III (ASL 201). This course will focus the use of American Sign Language in practical applications through discussing relevant topics like math, current events, arts, and various other topics with an emphasis on applying the language in real world interactions. In addition to classroom discussion, students will receive intensive individualized practice in the language laboratory via interactive websites, video programs, and CD ROMs.

4 Units
72 Lecture hours

ANIMATION

Division of Arts & Cultural Programs

ANIM 101

Introduction to Digital 3D Animation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is an introduction to the art of creating digital character animation. Students will be introduced to the concepts of digital sculpting, lighting, rendering, rigging and animating 3-D objects. This course is beneficial for all students in classes related to Graphic Arts (Multimedia,

Illustration, Web and Game Design and Film Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing and Product Design).

4 Units
54 Lecture hours
54 Lab hours

ANIM 105
Principles of Digital Animation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; ART 130; ART 230

Transfers to: CSU

This course introduces students to the basic principles of digital animation. The topics covered in this course are the starting point for any student interested in becoming a digital animator. Through the use of solid drawing and 3D software such as Maya, students will learn to master fundamentals like squash and stretch, timing, weight, drag and follow through. This course provides students with the opportunity to build and refine the basic skill set necessary to be a digital animator.

4 Units
54 Lecture hours
54 Lab hours

ANIM 110
Digital Character Animation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ANIM 105

Transfers to: CSU

This course will provide students with an opportunity to further develop their skills in the art of creating three-dimensional digital character animation. Students will learn how to create short animation sequences and loops using digital characters. This course is appropriate and beneficial for all students in courses related to Graphic Arts (Multimedia, Illustration, Internet Web Design, Game Design, and Broadcast Media Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing, and Product Design). Students will be introduced to the concepts of storyboarding, body mechanics, acting for animators, pose to pose and straight ahead animation, control rigging, and animating mechanical subject matter.

4 units
54 Lecture hours
54 Lab hours

ANIM 120
Lighting and Texture

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ANIM 101

Transfers to: CSU

This is an introductory course for all students interested in learning about lighting, rendering and texturing

for 3D animation. Students focus on creating lighting scenarios and texture editing systems to generate and render surface details on a variety of 3D objects. This course is beneficial for all students in courses related to Graphic Arts (Multimedia, Illustration, Internet Web Design, Game Design and Film Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing and Product Design).

4 Units
54 Lecture hours
54 Lab hours

ANIM 130
Modeling for Games

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ANIM 101

Transfers to: CSU

This is an introductory course in the creation of assets and environments for games. The course focuses on the creation of forms to be integrated into a game, and students will begin to grasp the design and digital sculpting of both organic and hard surface game assets. Aesthetics, construction, communication, light, form and quality of work are stressed. This course is beneficial for all students in courses related to Graphic Arts, Multimedia, Illustration, Internet Web Design, Game Design, Film Production, Industrial Design Architectural, Automotive, Furniture, Clothing and Product Design.

4 Units
54 Lecture hours
54 Lab hours

ANIM 133
Character Design

Prerequisite: ANIM 260
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 170

Transfers to: UC, CSU

This class is intended to teach the fundamentals of character design. Students learn the basics in character development by revising and polishing innovative designs of visually intriguing characters. The course helps students master and use gesture, construction and anatomy in their designs. Students learn to use digital tools to sketch, paint and build a visually compelling portfolio of characters.

4 Units
54 Lecture hours
54 Lab hours

ANIM 134
Mech and Vehicle Design

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 170

Transfers to: UC, CSU

This class is geared towards designing mechs, and vehicles of all types for

the entertainment industry. Centered on digital drawing and rendering using Photoshop, students create and present finished portfolio pages. The course takes students through a clear and efficient design process emphasizing storytelling, gesture, shape, and color.

4 Units
54 Lecture hours
54 Lab hours

ANIM 135
Environment Design

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ANIM 101

Transfers to: UC, CSU

This class introduces students to the artistic and technical requirements needed to work in the entertainment industry as environment artists. Through class projects, students learn the latest techniques in the construction of game levels using Maya and Unity. In addition to level design and the practical aspects of modeling and lighting, an emphasis is placed on the artistic merit of the student's work through value, color, design and composition.

4 Units
54 Lecture hours
54 Lab hours

ANIM 140
Animation Portfolio

Prerequisite: ANIM 101; ANIM 105
Advisory: ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

This course will prepare digital artists to talk about and present their artwork in a professional manner. Students will select an area of concentration within Entertainment Design to focus a portfolio project around. Using programs such as Photoshop CC, Premier CC, ZBrush, Maya and the Unity game engine students will create an online portfolio. This course is an excellent opportunity for students interested in developing and presenting a body of work that will help them take the next step in their professional career.

4 Units
54 Lecture hours
54 Lab hours

ANIM 260
Figure Drawing for Animators

Prerequisite: ART 230
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

A figure drawing course for animators that focuses on gesture and how to capture the essential movement, dynamic expression, and the individual attitude of the model. This course is designed to introduce

and develop an understanding of life drawing that will serve as a foundation for further studies in animation and entertainment arts. Students will refine basic skills in human anatomy while learning to draw the figure in sequential movement, understand weight and balance, facial and body expression, and figure invention.

3 Units
36 Lecture hours
72 Lab hours

ANTHROPOLOGY

Division of Behavioral & Social Sciences

ANTH 101 (C-ID ANTH 110)

Introduction to Physical Anthropology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ANTH 101 or ANTH 101H)

In this course, people are investigated from the perspective of evolutionary theory. Students will learn about the process of natural selection and related issues including patterns of inheritance. Also included will be an examination of the closest living relatives to humans, primates, with an emphasis on behavior and ape societies. An extensive survey of human ancestors will trace the origins of various life forms and recount how ape-like creatures evolved into modern humans. Students will also discover how natural selection can be used as a tool to understand patterns of human variation. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of humans from an evolutionary perspective.

3 Units
54 Lecture hours

ANTH 101H (C-ID ANTH 110)

Introduction to Physical Anthropology Honors

Prerequisite: ENGL 101; READ 021 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ANTH 101 or ANTH 101H)
In this course, people are investigated from the perspective of evolutionary theory. Students will learn about the process of natural selection and related issues including patterns of inheritance. Also included will be an examination of the closest living relatives to humans, primates, with an emphasis on behavior and ape societies. An extensive survey of human ancestors will trace the origins of various life forms and recount

how ape-like creatures evolved into modern humans. Students will also discover how natural selection can be used as a tool to understand patterns of human variation. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of humans from an evolutionary perspective.

3 Units
54 Lecture hours

ANTH 101L (C-ID ANTH 115L)

Physical Anthropology Lab

Prerequisite/Corequisite: ANTH 101 or ANTH 101H

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This laboratory course, designed to complement the lecture course, is for students interested in expanding their knowledge of physical anthropology. Students will be introduced to the methods, techniques, and procedures used in physical anthropology research, gaining practical experience by participating in laboratory activities and experiments employing the scientific method. Laboratory exercises will include an assessment of the forces that affect evolutionary change, the observation of primate behavior, the assessment of human variation, and the identification and classification of the skeletal features of humans, non-human primates, and human ancestors. Also included will be an exploration of Mendelian, molecular, and population genetics.

1 Unit
54 Lab hours

ANTH 102 (C-ID ANTH 120)

Introduction to Cultural Anthropology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

The emphasis of this general education course is the investigation of human culture. By learning about the diversity of cultural practices around the world, students will be able to evaluate their identities within their own societies. In addition to discovering the theories and methods important to cultural anthropology, the course will include an extensive examination of cross-cultural diversity. Students will learn about how people in different cultures obtain their food, exchange goods, organize themselves in groups, engage in politics, raise children, and worship supernatural beings. Also addressed will be the issue of how cultural anthropology can contribute to addressing problems important in the modern world. This course is designed for anthropology majors,

those with an interest in anthropology, or anyone with a desire to further their understanding of human culture.

3 Units
54 Lecture hours

ANTH 102H (C-ID ANTH 120)

Introduction to Cultural Anthropology Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

The emphasis of this general education course is the investigation of human culture. By learning about the diversity of cultural practices around the world, students will be able to evaluate their identities within their own societies. In addition to discovering the theories and methods important to cultural anthropology, the course will include an extensive examination of cross-cultural diversity. Students will learn about how people in different cultures obtain their food, exchange goods, organize themselves in groups, engage in politics, raise children, and worship supernatural beings. Also addressed will be the issue of how cultural anthropology can contribute to addressing problems important in the modern world. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of human culture. This course is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

ANTH 103 (C-ID ANTH 150)

Introduction to Archaeology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

Archaeology is the study of past societies through the analysis of material remains. This general education course will survey the development of major cultural centers around the world including those found in Mesoamerica, South America, Egypt, China, Africa, and the Middle East. Examples drawn from many ancient sites will trace human societies from pre-agricultural communities, through the origins of agriculture, to the rise of major political and economic institutions. Students will learn how archaeologists discover information about the past, the history of the discipline, and the important issues confronting the field today. This course is designed for students who

are interested in the field of archaeology or for students who plan to major in anthropology.

3 Units

54 Lecture hours

ANTH 104 (C-ID ANTH 130)

Introduction to Language and Culture

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students majoring in anthropology or anyone interested in learning about the diversity of communication forms and language systems around the world. The course investigates the development and evolution of language, the structure and the sound systems of different languages, language loss and conservation, and the variations in different languages such as dialects and the social situations in which they are used. The different forms of verbal and non-verbal communication are studied across cultures with special attention paid to the use of technology like social media and the problems that arise in communication between people of different class, gender, and ethnicity in our globalized world.

3 Units

54 Lecture hours

ANTH 110

Human Sexuality from a Cross-Cultural Perspective (Same as SOC 110)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students with an interest in human sexuality from a cross-cultural perspective. Sexual anatomy, development, response, and behavior will be examined, along with historical and cultural patterns. Students will learn about the development and expression of gender and orientation from both Western and non-Western perspectives, with an emphasis on the influence of culture on individuals.

3 Units

54 Lecture hours

ANTH 115

Introduction to Medical Anthropology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

Medical anthropology explores the perceptions of disease, health, and healing in different cultures around the world. Socio-cultural, biological, and ecological perspectives will be used to understand the origins of illness and disease and medical practices across cultures. Topics include diagnosis and therapies, the

role of healers like witchdoctors and shaman, stress and mental health, unequal access to medical care, and medical anthropology applied to global health problems. This course is intended for nursing and health care professionals seeking continuing education credit and students interested in the cultural aspects of healing and treating disease.

3 Units

54 Lecture hours

ANTH 125

Religion, Magic, Witchcraft, and the Supernatural

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students interested in learning about the diverse religious beliefs and practices around the world. An introduction to the anthropological study of religion will include an overview of the various forms of religious belief systems, the variety of gods and other supernatural forces, the use of myths, rituals, and ceremonies in religious practice, and the types of shamans, priests, and other religious specialists found in religious systems. The religious use of drugs will be explored along with traditional healing practices and folk medicine remedies used in many Western cultures. A survey of witchcraft, sorcery, the occult, demons, exorcism rites, sacrificial practices, and magic will be included. In addition, concepts relating to death and the afterlife will be explored such as souls, ghosts, reincarnation, zombies, and others.

3 Units

54 Lecture hours

ARCHITECTURE

Division of Career & Technical Education

ARCH 110

Construction Document Reading and Estimating

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This course is beneficial for apprentices, students of architecture and employees in all areas of the construction industry, and covers residential, light commercial and industrial building construction. An introduction to the use of prints, construction documents and the theory of construction estimating, as used in the building industry will be presented. Principles of reading working

drawings, plans, H.V.A.C. specifications, details, elevations and electrical specifications are included as well as material estimating, estimating rules, tables and procedures.

3 Units

45 Lecture hours

27 Lab hours

ARCH 115

Introduction to Residential Architecture: Drawing and Design

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting

Transfers to: CSU

This introductory course is for any student interested in the field of Architectural Drawing and Design. The course is a requirement for both the A.S. degree and certificate in Architectural Design and Drawing, Engineering Design Drafting and Civil Design Technology. The course includes the study of architectural graphic standards related to creating construction drawings such as floor plans, exterior and interior elevations, site plans, foundation plans and details, building sections and construction framing details for one or two story residential structure. Emphasis is placed on symbolism, conventions, and techniques to develop technical skills necessary for an entry level architectural drafter and may lead to careers in environmental planning and design, architectural engineering, and construction technology. Construction methods, building codes, design factors, planning, and use of reference materials are discussed and applied. All construction documents will be developed using traditional board drafting methods and standards.

4 Units

54 Lecture hours

54 Lab hours

ARCH 125

Residential Architecture and Detailing

Prerequisite: ARCH 115

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 150 or ENGT 170, or industry experience in CADD applications

Transfers to: CSU

This intermediate level course is for students pursuing a degree or certificate in Architectural Design and Drawing and is a requirement for both the A.S. degree and certificate. This course involves creating a set of construction drawings for a two story structure and emphasizes the study of wall and construction systems, foundation systems, detailing of wood and concrete systems, sections, interior details, and completion of the residential construction documents.

Emphasis is placed on development of technical skills in detailing, use of reference materials, building codes, standard construction techniques and architectural graphic standards. All construction documents will be developed using CADD.

3 Units

36 Lecture hours

54 Lab hours

ARCH 215

Architectural Perspective and Rendering

Prerequisite: ARCH 115

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 105

Transfers to: CSU

This course is for all students interested in developing skills in architectural perspective drawing and is a requirement for the Architecture A.S. degree. Students will be introduced to the theory of and practical application of perspective drawing and rendering as used in architecture. Topics include one, two, and three point perspectives, entourage, and introduction to rendering techniques, such as water color, markers, film, pastels, pencil, pen and ink. Presentation techniques will also be discussed.

4 Units

54 Lecture hours

54 Lab hours

ARCH 225

Commercial Wood and Masonry Design and Construction

Prerequisite: ARCH 115

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 150 or ENGT 170 or industry experience in CADD applications

Transfers to: CSU

This advanced level course is for students pursuing an A.S. Degree or Certificate in Architecture and Architectural Design and Drawing. The course includes the study of construction methods, building ordinances and codes. As a component of the course students will complete construction documents for concrete block, steel and wood commercial buildings and retail space. Emphasis is placed on effective space utilization, technical plans, elevations, aesthetics, handicap requirements, site utilization and development, traffic flow, landscape, foundation design and construction details.

4 Units

54 Lecture hours

54 Lab hours

ARCH 235

Architectural Design Studio

Prerequisite: ARCH 215

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or

appropriate assessment; ENGT 150

Transfers to: UC, CSU

This course is for students pursuing the A.S. degree in Architecture with the intent of transferring and continuing their study of architecture. Topics explored include multiple design principles, concept applications, spatial and form definition, preliminary studies, interior and exterior space planning, site orientation, styles and materials. Student design concepts will be expressed verbally and graphically using presentation drawings, isometrics and perspectives, conceptual models, renderings and photographs. Students will develop skills in a studio atmosphere dealing with existing conditions, problem solving using design criteria, codes and environmental relationships for abstract, residential and small commercial structures.

4 Units

54 Lecture hours

54 Lab hours

ARCH 236

Architecture Design Studio II

Prerequisite: ARCH 235

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This second level Design Studio course builds upon the foundation of architectural design studio ARCH 235. This course presents additional design approaches to spatial and form definition of architectural program, urban and site planning, topographic, civil and environmental issues. Architectural design proposals and projects will be expressed verbally and graphically using presentation drawings, conceptual models, renderings and photographs. Students will enhance their design skills in a studio atmosphere, working to justify their design solutions.

4 Units

54 Lecture hours

54 Lab hours

ARCH 260

Advanced Architecture Using Revit and 3D Software

Prerequisite: ARCH 115; ENGT 150

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting; ENGT 200

Transfers to: CSU

This course is for all students pursuing an A.S. Degree in Architecture (Transfer) and Architectural Design and Drawing and presents an intensive study of BIM (Building Information Modeling) applications as they relate to architecture. Utilizing the latest releases of 3D design software such as Revit and AutoCAD

Architecture and previously learned technical and architectural drafting conventions, students will produce two and three dimensional BIM generated architectural drawings and 3D virtual models. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

4 Units

54 Lecture hours

54 Lab hours

ARCH 261

Revit for Advanced BIM Architectural, Structural and MEP Applications

Prerequisite: ARCH 260

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

Advanced BIM (Building Information Modeling) applications extends the fundamentals of the ARCH 260 class to include Structural, Mechanical, Electrical and Plumbing extensions of the Autodesk Revit Building software. Students will work on both group and individual projects to create and present three-dimensional representation of architectural solutions. Students will also learn the basic process and workflow in creation of Revit Families for use in building models.

4 Units

54 Lecture hours

54 Lab hours

ARCH 280

Advanced MicroStation for CADD & BIM Applications (Same as ENGT 280)

Prerequisite: ENGT 170 or verifiable work experience and proficiency in MicroStation XM or V8i

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting

Transfers to: CSU

This course is for students pursuing an advanced study in MicroStation 3D parametric CADD (Computer Assisted Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture. Students will apply previously learned drafting conventions to produce two and three dimensional CADD and BIM generated mechanical and architectural drawings and virtual design models. This course benefits all students studying Architecture, Civil Engineering, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

4 Units

54 Lecture hours

54 Lab hours

ARCH 290

Cooperative Work Experience/Internship for Architecture Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of architecture and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

ARCH 299

Directed Study in Architecture Design

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Architecture Design & Drawing beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART

Division of Arts & Cultural Programs

ART 101

Introduction to the Fine Arts

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This lecture/lab course provides an introduction to the Fine Arts for the non-art major providing an opportunity to learn about the arts through a series of lectures and hands-on projects within an art historical and conceptual framework. Project and topics include drawing, painting, print-making, design, mixed media and sculpture.

3 Units

27 Lecture hours

81 Lab hours

ART 104 (C-ID ARTH 145)

Art of the Ancient Americas

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

Art 104 is a study of the indigenous arts of Mexico, Andean South America, and Central America, from civilizations including the Olmec, Maya, Aztec, Inca, Moche, Chavin de Huantar, and Nazca. Art of representative native tribes of the territory now encompassed by the United States and Canada will be comparatively examined. Works of art and architecture will be presented in relation to the various religious beliefs, political/ economic systems, and cultural practices of the ancient Americas. Art historical and archaeological methodologies relating to the understanding and interpretation of non-Western art will be discussed.

This course is appropriate for students pursuing a degree in Art, students with an interest in American Studies and Latin American Studies.

3 Units

54 Lecture hours

ART 105 (C-ID ARTH 110)

Survey of Western Art: Prehistory through the Middle Ages

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ART 105 or ART 105H)

This course presents a broad overview of Prehistoric, Mesopotamian, Egyptian, Greek, Etruscan, Roman, Early Christian, Islamic, and Medieval art and architecture. This course

is appropriate for all students pursuing the degree in Studio Art or Art History or seeking to fulfill general education requirements in Fine Arts and Humanities.

3 Units

54 Lecture hours

ART 105H (C-ID ARTH 110)

Survey of Western Art: Prehistory through the Middle Ages Honors

Prerequisite: ENGL 101 and a minimum GPA of 3.2

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ART 105 or ART 105H)

This course presents a broad overview of Prehistoric, Mesopotamian, Egyptian, Greek, Etruscan, Roman, Early Christian, Islamic, and Medieval art and architecture. This course is appropriate for all students pursuing the degree in Studio Art and/ or seeking to fulfill general education requirements in Fine Arts and Humanities. This course is designed for those who meet Honors Program requirements.

3 Units

54 Lecture hours

ART 106 (C-ID ARTH 120)

Survey of Western Art: Renaissance to Contemporary

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ART 106 or ART 106H)

This course provides an overview of the history of Western art from the 14th century through the Modern Era, including Renaissance, Baroque, Rococo, Neoclassicism, Romanticism, Realism, Early Photography, Impressionism, Post Impressionism, Modernism, Postmodernism, and major art developments of the 20th and 21st centuries. This course is appropriate for all students pursuing the degree in Studio Art or Art History or seeking to fulfill general education requirements in Fine Arts and Humanities.

3 Units

54 Lecture hours

ART 106H (C-ID ARTH 120)

Survey of Western Art: Renaissance to Contemporary Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ART 106 or ART 106H)

This course provides an overview of the history of Western art from the 14th century through the Modern Era, including Renaissance, Baroque,

Rococo, Neoclassicism, Romanticism, Realism, Early Photography, Impressionism, Post Impressionism, Modernism, Postmodernism, and major art developments of the 20th and 21st centuries. This course is designed for those who meet Honors Program requirements, and is appropriate for all students pursuing the degree in Studio Art or Art History or seeking to fulfill general education requirements in Fine Arts and Humanities.
3 Units
54 Lecture hours

ART 107 (C-ID ARTH 130)

The Art of Asia

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course examines the artistic traditions of Prehistoric to Modern Asia in relation to their cultural, philosophical, and religious influences. The art and architecture of Central Asia (India, China, Korea, and Japan) will be emphasized. Examples from Southeast Asia, Pakistan, Tibet, and Nepal will also be discussed. This course is appropriate for all students interested in art and culture and for those seeking to fulfill general education requirements for Fine Arts and Humanities, as well as all Studio Art majors.

3 Units

54 Lecture hours

ART 108

The Art of Mexico

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of the art and architecture of Mexico including PreColumbian, Viceregal (Colonial) and Modern 19th and 20th centuries. Chicano/a art will also be examined in relation to its Mexican antecedents. Art 108 is appropriate for all students interested in art and culture and for those seeking to fulfill general education requirements in Fine Arts and Humanities, as well as all Studio Art majors and Art History majors.

3 Units

54 Lecture hours

ART 109

Art of the Americas: Colonial to the Present

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course includes a study of the art and architecture of North, Central, and South America from the colonial period to the early 20th Century. This course is appropriate for students with an interest in American Studies,

Latin American Studies, and/or those seeking to fulfill the general education requirements in Fine Arts and Humanities.

3 Units

54 Lecture hours

ART 110 (C-ID ARTH 100)

Understanding Visual Art

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

ART 110 is a lecture course that provides the student with an introduction to the study of visual art: its vocabulary, its forms, the many roles it plays in society, and the variety of processes artists master in its making. Students gain insight into current approaches used in interpreting meaning from art and explore questions about the ways in which value is assigned to the art object. Using examples from cultures around the world and across time, this course offers a broad overview to any student interested in art and culture and to those seeking to fulfill general education requirements in Fine Arts and Humanities.

3 Units

54 Lecture hours

ART 112 (C-ID ARTH 150)

Visual Art in the Modern Era

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

ART 112 is a survey of developments in art and architecture from the early 19th century through the 20th century and into the 21st. From Neoclassicism and Romanticism through Postmodernism and contemporary art, visual art movements will be discussed in relation to stylistic trends, philosophical influences, innovations in technology, and other historical and social contexts. The roles played by artist, critic, and consumer in shaping these movements will be examined, as well as visual art's impact upon society in the Modern Era. This course is appropriate for all students pursuing the degree in Art History and/or seeking to fulfill general education requirements in Fine Arts and Humanities.

3 Units

54 Lecture hours

ART 113

The History of Photography

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This lecture course examines the history of photography from its invention in the 1830s to the present. The technological development, social role, and aesthetic possibilities

of photography will be discussed in relation to major historical, art historical, cultural, and political influences. This course is appropriate for all students interested in photography, art, and art history and culture and for those seeking to fulfill the general education requirement for Fine Arts and Humanities, as well as Studio Art majors and Art History majors.

3 Units

54 Lecture hours

ART 115

The Art of Film

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory course explores film as an art form, its basic components, and its relation to the styles and movements of other visual arts forms. An understanding of cinematic language is emphasized by focusing upon film's manipulation of time and space, its use of visual metaphors, montages, and explicit/implicit messages. The collaborative nature of filmmaking is studied by examining the role of cinematography, lighting, film editing, visual effects, art direction, and the use of sound and music to enhance the script and create style. Through discussion and written assignments, students develop the ability to analyze the impact of films viewed both in and out of class. This course is appropriate for any student interested in film, art, media studies, or culture.

3 Units

54 Lecture hours

ART 120 (C-ID ARTS 100)

Two Dimensional Design

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This is a foundational, first semester course and is open to any student interested in the fundamentals of visual thinking as they apply to all visual media and fulfills a general education requirement in Art. This course provides an introduction to the concepts, applications, and art historical references related to two-dimensional art and composition, and includes the study of the basic elements of line, shape, texture, value, color and spatial illusion. Students will develop a visual vocabulary for creative expression through lecture presentations, studio projects, and written assignments.

3 Units

54 Lecture hours

54 Lab hours

ART 121 (C-ID ARTS 101)**Three Dimensional Design**

Advisory: READ 022 or appropriate assessment; ART 120

Transfers to: UC, CSU

This is a foundational, first semester course and is open to all students interested in the fundamentals of visual thinking as they apply to all three dimensional media. It also fulfills a general education requirement in art. This course provides an introduction to the concepts, applications, and art historical references related to three-dimensional art, and includes the basic elements and principles of three-dimensional design. Students will develop a visual vocabulary for creative expression through lecture, slide and video presentations, and studio projects using a variety of tools and written assignments.

3 Units

54 Lecture hours

54 Lab hours

ART 124 (C-ID ARTS 270)**Color Theory**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to the characteristics of color and its interaction suited for all art majors transferring to a four-year college or interested in working in the arts as a painter, illustrator or designer. The course will cover the principles, theories, and applications of additive and subtractive color in two dimensions. Topics will include major historical and contemporary color systems, production of projects in applied color, and the elements of design as they apply to color.

3 Units

36 Lecture hours

72 Lab hours

ART 130 (C-ID ARTS 110)**Freehand Drawing I**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is a first semester course for art and non-art majors interested in developing basic drawing skills. As an introduction to observational drawing and composition, students will develop the ability to perceive and define shape, contour, volume, space, and light using a variety of drawing media and subject matter. Emphasis is on clarity of observation and the ability to order and translate 3-dimensional form and space into 2-dimensional drawings.

3 Units

36 Lecture hours

72 Lab hours

ART 131 (C-ID ARTS 205)**Freehand Drawing II**

Prerequisite: ART 130

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is a second semester course for art and non-art majors in observational drawing and composition, stressing an advanced ability to perceive and define shape, contour, volume, space, and light. Students will use a variety of drawing media and subject matter. Emphasis is on strengthening skills introduced in Freehand Drawing I, the exploration of color in drawing and concepts related to content.

3 Units

27 Lecture hours

81 Lab hours

ART 135 (C-ID ARTS 210)**Beginning Painting**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 130

Transfers to: UC, CSU

This is a first semester course for art and non-art majors interested in developing basic painting skills. The course explores both traditional and contemporary painting techniques while stressing an ability to perceive and define shape, contour, volume, texture, space, and light using acrylic or water-based oil painting media. Emphasis is on learning the techniques of painting, understanding the use of color, while strengthening observation and rendering skills. Students are advised to have some drawing skills before taking this class.

3 Units

36 Lecture hours

72 Lab hours

ART 136**Intermediate Painting**

Prerequisite: ART 130; ART 135

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is a second semester course for art and non-art majors interested in further development of painting skills and techniques, understanding the use of color and space, while strengthening observation and rendering skills. The course explores both traditional and contemporary painting concepts, styles, and techniques that involve complex compositional and technical problems in either acrylic or oil painting media.

3 Units

36 Lecture hours

72 Lab hours

ART 140**Ceramics I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course open to all art and non-art majors interested in learning basic skills in ceramics using the potter's wheel. Students will develop a visual vocabulary for creative expression through lectures, power point, vocabulary lists and video presentations. This course covers beginning problems of centering, throwing and shaping various functional and non-functional pottery. Students will be introduced to the process of glazing and basic firing techniques. This course emphasizes exploring personal and cultural expression in the ceramic media. Evaluation will be based on using a variety of tools and writing assignments.

3 Units

36 Lecture hours

72 Lab hours

ART 141**Ceramics II**

Prerequisite: ART 140

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This is an intermediate course in ceramics open to all art and non-art majors, with continued emphasis on basic skills using the potter's wheel. Included in the course will be intermediate problems on the wheel, basic decorative techniques, and making a test glaze. Students will be exploring contemporary artistic practice and the social and historical elements of ceramic art.

3 Units

36 Lecture hours

72 Lab hours

ART 142**Introduction to Ceramic Handbuilding**

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is a first semester course for art and non-art majors. It is designed to introduce students to the concepts, techniques, history, and contemporary practices of handbuilding in the ceramics arts. This course can be taken once and repeated three times for credit. This class is for any student who is interested in the fundamentals of clay construction using handbuilding technique.

3 Units

36 Lecture hours

72 Lab hours

ART 146**Introduction to Sculpture**

Prerequisite: ART 121

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 130

Transfers to: CSU

This course is suited for art majors transferring to a four-year college or any student interested in working in the arts. The course is an introduction to three-dimensional sculptural principles, techniques, and concepts utilizing a wide range of materials and practices. Various sculpture methods are practiced with attention to creative self-expression and historical context.

3 Units

36 Lecture hours

72 Lab hours

ART 150**Beginning Printmaking**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 121; ART 130

Transfers to: UC, CSU

This course is an introduction to the art of printmaking suitable for studio art majors transferring to a four-year college or any student interested in working in the arts. This course is an introduction to the basic materials, equipment, and processes of printmaking, including relief (linocut and woodcut), intaglio (drypoint, etching, and collagraph), planography (lithography and monotype), and stencil (screenprint).

3 Units

36 Lecture hours

72 Lab hours

ART 151**Intermediate Printmaking**

Prerequisite: ART 150

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is a second semester course for the art and non-art major in the continued study of intaglio and relief fine art printmaking processes. This course will expand upon techniques and skills students learned in Beginning Printmaking, ART 150 including color printing techniques as well as serigraph printing. While stressing creativity and expression students will also learn the practice of creating an edition.

3 Units

36 Lecture hours

72 Lab hours

ART 160**Rendering and Illustration**

Advisory: READ 022 or appropriate assessment; ART 130

Transfers to: UC, CSU

Intended for the student interested in developing skills in rendering and illustration, this course is a beginning course in illustration and rendering exploring both traditional and contemporary drawing techniques, stressing an ability to perceive and define shape, contour, volume, texture, space, and light both realistically as well as expressively using various media. Emphasis is on learning the techniques of illustration, understanding the use of color, while strengthening observation and rendering skills.

3 Units

36 Lecture hours

72 Lab hours

ART 161**Advanced Rendering and Illustration**

Prerequisite: ART 160

Advisory: READ 022 or appropriate assessment; ART 130

Transfers to: CSU

Intended for the student interested in developing skills in rendering and illustration, this course is an advanced course in illustration and rendering exploring both traditional and contemporary drawing techniques while stressing an ability to perceive and define shape, contour, volume, texture, space, and light both realistically as well as expressively using various media. Emphasis is on learning the advanced techniques of illustration, understanding the use of color, while strengthening observation and rendering skills.

3 Units

36 Lecture hours

72 Lab hours

ART 170 (C-ID ARTS 250)**Introduction to Digital Painting**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 120; ART 130; ART 135

Transfers to: UC, CSU

This course is designed for students majoring in the Visual Arts: including Fine Arts, Illustration, Animation, Graphic Art and any student interested in learning to use the computer as a tool for original image making. The course will survey traditional drawing and painting techniques using computer technologies such as software, drawing tablets, scanners and printers. Students will investigate the fundamental pictorial elements of line, shape, space, color, and texture as well as the formal relationship of these elements to produce original works of art while learning the technology, concepts, and practices of digital art production.

3 Units

27 Lecture hours

81 Lab hours

ART 175**Computer Graphics**

Advisory: READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is for the student interested in a degree in commercial art or any student interested in 2 dimensional paint and 3 dimensional modeling applications employed as tools by computer graphic artists. Topics covered will include the exploration of basic paint techniques as well as basic modeling, mapping, rendering and animation techniques as they relate to page and web design.

3 Units

36 Lecture hours

72 Lab hours

ART 180**Art Gallery Display Design**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is appropriate for all students interested in art, art exhibitions, museum studies, and cultural studies and is a combination studio and lecture course that provides students with creative experience in exhibition design and gallery installation. Topics include exhibition space planning, principles of color and design, art exhibition construction and lighting, and proper care and handling of art objects. Students are also given an introduction to the basic principles of art curating and gallery management. This course may be taken once and repeated three times for credit.

2 Units

18 Lecture hours

54 Lab hours

ART 185**Art Studio**

Transfers to: UC, CSU

This course is designed to provide supervised studio study on an individual basis with various projects. Arranged: 4 hours lab. Offered on a pass-no pass basis.

1 Unit

72 Lab hours

ART 230 (C-ID ARTS 200)**Beginning Life Drawing**

Prerequisite: ART 130

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is a first semester course for art, animation, and non-art majors interested in developing the basic drawing skills of representing the human figure. As an introduction to observational figure drawing and composition, students will develop the ability to perceive and define the anatomy and structural organiza-

tion of the human form in terms of expressive design and creative use of drawing media.

3 Units
36 Lecture hours
72 Lab hours

ART 231
Intermediate Life Drawing

Prerequisite: ART 230
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is a second semester course for art, animation, and non-art majors interested in furthering their figure drawing skills. Working from a professional figure model, students will refine those skills learned in ART 230 and learn intermediate drawing skills, study human anatomy in greater detail, and extend their knowledge regarding the use of the figure in visual art. Emphasis is on clarity of observation and the ability to order and translate form and space on a two dimensional surface.

3 Units
36 Lecture hours
72 Lab hours

ART 232
Advanced Life Drawing

Prerequisite: ART 231 or ANIM 260
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is a third semester course for art, animation, and non-art majors interested in furthering their figure drawing skills. Students will refine those skills learned in ART 231 or ANIM 260 and learn advanced drawing skills, study the human anatomy in greater detail, and extend their knowledge regarding the use of the figure in visual art.

3 Units
36 Lecture hours
72 Lab hours

ART 233
Freehand Drawing III

Prerequisite: ART 131
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

This course is a third semester course in drawing and composition. More complex problems and a broader range of media including color will be utilized. Emphasis is on advancing observational skills and conceptual development through a range of subject matter, technical refinement and thematic development. Exploration of individual creative interpretation, process and intent in order to deepen

the student's studio practice and investigation is stressed.

3 Units
36 Lecture hours
72 Lab hours

ART 234
Watercolor Painting

Prerequisite: ART 130
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

This course is an introduction to various transparent watercolor techniques including wash and glazing. Applications of drawing, beginning painting, and design fundamentals to these techniques are included as well as the communicative element of content.

3 Units
36 Lecture hours
72 Lab hours

ART 235
Advanced Painting I

Prerequisite: ART 136
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is a third semester course in painting for the art and non-art major. The course constitutes a study of advanced painting problems stressing experimentation with traditional and contemporary methods of painting, composition, and expression. Class and individual projects using figure, still life, landscape, abstraction, shaped format, altered scale and material exploitation will be stressed.

3 Units
36 Lecture hours
72 Lab hours

ART 236
Advanced Painting II

Prerequisite: ART 235
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is a fourth semester course in painting for the art and non-art major. This course explores experimentation with traditional and contemporary methods of painting using the figure, still life, landscape, abstraction and non-objective imagery with an emphasis on continuing skill development and problem solving of interpretation, expression and conceptual issues in painting.

3 Units
36 Lecture hours
72 Lab hours

ART 242
Advanced Ceramics

Prerequisite: ART 141
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

This is an advanced course in ceramics, open to all art and non-art majors. This class places a special emphasis on personal growth and aesthetics as well as increased proficiency on the potter's wheel. Students will investigate the concepts of management and expressive exploration of the unique characteristics of fired ceramics – both the opportunities and constraints presented in the processing of clay from a soft, plastic, fragile, impermanent substance into a hard, rigid, and completely metamorphosed material after drying and firing. It is a process that requires sensitivity to time and sequence, and demands critical informed technical management. An important aspect of the class will be having students evaluate their selection of type of clay, decorative techniques and final-firing process to achieve their desired finished results. Included in this course will be advanced problem-solving in forms, shapes, decorative techniques and glazing.

3 Units
36 Lecture hours
72 Lab hours

ART 252
Advanced Printmaking

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This is a third semester course for the art and non-art major in the continued study of intaglio and relief fine art printmaking processes. This course will expand upon techniques and skills students learned in Intermediate Printmaking, ART 151. Students will improve printing skills enhanced by supervised repetition and practice within class periods. Course content differs each time it is offered so it may be taken once and repeated three times for credit.

3 Units
36 Lecture hours
72 Lab hours

ART 290
Cooperative Work Experience/Internship for Visual Arts Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course supports and reinforces on-the-job training in business, industrial, studio, non-profit and professional art organizations under supervision of a college instruc-

tor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of visual arts and have completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

ART 299A

Directed Study in Art History

Advisory: ART 104 or 105 or 105H or 106 or 106H or 107 or 108 or 109 or 112 or 113 or 115

Transfers to: CSU

The course provides an opportunity for students to expand their studies in Art History beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299C

Directed Study in Ceramics

Prerequisite: ART 141

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in ceramics beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Stu-

dents may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299D

Directed Study in Drawing

Prerequisite: ART 232 or ART 233

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in drawing beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299F

Directed Study in Artistic Anatomy

Prerequisite: ART 232

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the art student to expand their studies in anatomical form beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299G

Directed Study in Gallery and Museum Practices

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ART 180 or any one of the following: ART 104, 105, 105H, 106, 106H, 107, 108, 109, 112, 113, 115

Transfers to: CSU

The course provides an opportunity for students to expand their studies in gallery and museum practices

beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299P

Directed Study in Painting

Prerequisite: ART 236

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in painting beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299PP

Directed Study in Portfolio Preparation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; Any one of the following: ART 131, 136, 141, 142, 165, 231, or PHTO 191

Transfers to: CSU

The course provides an opportunity for Visual Arts students to prepare and develop a professional portfolio. The portfolio project will be arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ART 299S

Directed Study in Sculpture

Prerequisite: ART 121 or ART 142 or ART 146

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in sculpture and three-dimensional form beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ASSOCIATE DEGREE NURSING

Division of Health Science & Nursing

ADN 075

LVN Transition into the Associate Degree Nursing Program

Prerequisite: Acceptance into Nursing Program and Current LVN License
Advisory: READ 043 or appropriate assessment; MATH 070 or MATH 070D or MATH 073 or appropriate assessment

This short-term course provides an overview of the Associate Degree Nursing Program. The focus is on successful learning strategies and the development of critical thinking skills. An overview of the Systems Developmental Stress Model is included as a framework for the nursing process and the Associate Degree Nursing Curriculum. Also included is an in depth study of the nursing process including physical assessment, nursing diagnosis, interventions and evaluations. The nursing skills required for physical assessment and basic patient care will be presented. This course is open to all career ladder LVN and 30 Units option students entering the second year of the Associate Degree Nursing Program.

2.5 Units

36 Lecture hours

27 Lab hours

ADN 150

Medical/Surgical Nursing I

Prerequisite: ADN 151, ADN 151L, BIOL 222, and ENGL 101

Corequisite: ADN 150L and ADN 154

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on the application of the nursing process for patients with disturbances in the digestive and renal systems, fluid and electrolyte status and acid/base balance, endocrine, cardiovascular and respiratory systems. The pathophysiology of disease processes, as well as medical and nursing interventions, is discussed. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 150 and ADN 150L, and pass both courses together. They cannot be taken individually for credit.

4 Units

72 Lecture hours

ADN 150L

Medical/Surgical Nursing I Lab

Prerequisite: ADN 151, ADN 151L, BIOL 222, and ENGL 101

Corequisite: ADN 150 and ADN 154

Transfers to: CSU

This course focuses on the application of the nursing process in caring for patients with disturbances in the digestive and renal systems, fluid and electrolyte status and acid/base balance, endocrine, cardiovascular and respiratory systems. The pathophysiology of disease processes, as well as medical and nursing interventions, is discussed. The students will apply the theoretical concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 150 and ADN 150L, and pass both courses together. They cannot be taken individually for credit.

4 Units

216 Lab hours

ADN 151

Clinical Nursing Concepts

Prerequisite: BIOL 125, BIOL 222, BIOL 226 and ENGL 101

Corequisite: ADN 151L

Advisory: READ 043 or appropriate assessment; MATH 070 or MATH 070D or MATH 073 or appropriate assessment
Transfers to: CSU

This is an introductory course in basic clinical nursing concepts. The student will be introduced to a theoretical framework for nursing practice including the nursing process, the conceptual model used in the Associate Degree Nursing program and QSEN. Concepts related to therapeutic

communication, legal and ethical issues, documentation and safety are included. In addition, concepts related to assessment, nursing interventions and individualization of patient care will be presented. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 151 and ADN 151L, and pass both courses together. They cannot be taken individually for credit.

2 Units

36 Lecture hours

ADN 151L

Clinical Nursing Concepts Lab

Prerequisite: BIOL 125, BIOL 222, BIOL 226 and ENGL 101

Corequisite: ADN 151

Advisory: READ 043 or appropriate assessment; MATH 070 or MATH 070D or MATH 073 or appropriate assessment
Transfers to: CSU

This is an introductory laboratory and clinical course designed to familiarize the student with the nursing process and its application to patient care. Principles and techniques for nursing skills will be introduced in order to provide the student with the opportunity to demonstrate mastery of those skills and subsequently the ability to function safely and appropriately in the laboratory and clinical setting. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 151 and ADN 151L, and pass both courses together. They cannot be taken individually for credit.

2 Units

108 Lab hours

ADN 154

Pharmacology

Prerequisite: ADN 151

Corequisite: ADN 150 and ADN 150L

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This is an introduction pharmacology course that focuses on the study of drugs most frequently prescribed. The course emphasis is on basic techniques and computations used in the administration of medications as well as the special nursing considerations that pertain to the safe administration of medication. Completion of this course allows the Associate Degree Nursing student to safely administer medication to patients under the supervision of the nursing instructor.

2 Units

27 Lecture hours

27 Lab hours

ADN 155

Nursing Process: Childbearing Family/Women's Health

Prerequisite: ADN 150, ADN 150L, ADN 151, ADN 151L, and ADN 154

Corequisite: ADN 155L

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the Associate Degree Nursing student. It focuses on the biological, intrapersonal/interpersonal and developmental aspects of human reproduction. The nursing process is utilized in meeting maternal, newborn, and family needs as they relate to human reproduction. This course also focuses on women's health issues with regard to fertility, family planning, gynecological problems and related needs, and the utilization of the nursing process to meet those needs. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 155 and ADN 155L, and pass both courses together. They cannot be taken individually for credit.

2 Units

36 Lecture hours

ADN 155L

Nursing Process: Childbearing Family/ Women's Health Lab

Prerequisite: ADN 150, ADN 150L, ADN 151, ADN 151L, and ADN 154

Corequisite: ADN 155

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on the application of the nursing process in caring for childbearing women, their newborns, and their families through the normal childbearing process with attention to common pathophysiology's associated with childbearing and the newborn. Students will use evidence-based practice to guide their clinical practice and enhance their cultural sensitivity to the diverse population served. Development of patient teaching skills is emphasized. The nursing process is integrated throughout the clinical experience. The students will be able to apply the theoretical concepts learned in theory in the clinical setting. This course is designed for students in the Associate degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 155 and ADN 155L, and pass both courses together. They cannot be taken individually for credit.

2 Units

108 Lab hours

ADN 156

Nursing Process Applied to the Care of Children

Prerequisite: ADN 150, ADN 150L, and ADN 154

Corequisite: ADN 156L

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on the application of the nursing process in caring for children. Emphasis is placed on normal growth and development patterns of the growing child and developmental, biological, interpersonal and intrapersonal stressors affecting children and their families. The pathophysiology of disease process that may occur during childhood and related medical and nursing interventions are discussed. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 156 and ADN 156L, and pass both courses together. They cannot be taken individually for credit.

2 Units

36 Lecture hours

ADN 156L

Nursing Process Applied to the Care of Children Lab

Prerequisite: ADN 150, ADN 150L, and ADN 154

Corequisite: ADN 156

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on the application of the nursing process in caring for children. Emphasis is placed on normal growth and development patterns of the growing child and developmental, biological, interpersonal and intrapersonal stressors affecting children and their families. The pathophysiology of disease process that may occur during childhood and related medical and nursing interventions are discussed. The students will apply the theoretical concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 156 and ADN 156L, and pass both courses together. They cannot be taken individually for credit.

2 Units

108 Lab hours

ADN 200

Advanced Pharmacology

Prerequisite: ADN 155 and ADN 156 (for generic ADN students); ADN 075 (for LVN to ADN students)

Advisory: ENGL 101; READ 043 or appropriate assessment; MATH 070 or MATH 070D or MATH 073 or appropriate assessment

Transfers to: CSU

This is an advanced pharmacology course that focuses on the skills and study of medications used for neurological, psychiatric, and medical-surgical concepts. The course

emphasis is on advanced techniques and computations used in the administration of medications utilizing the nursing process and the Systems Developmental Stress Model, as well as the special nursing considerations that pertain to the safe administration of medication. Study of this course allows the Associate Degree Nursing student to continue to safely administer medications to patients.

1 Unit

18 Lecture hours

ADN 251

Medical/Surgical Nursing II

Prerequisite: ADN 155, ADN 155L and ADN 156, ADN 156L (for generic ADN students); ADN 075 (for LVN to ADN students)

Corequisite: ADN 252 and ADN 252L (students who have an active Psychiatric Technician license are exempt from the ADN 252 and ADN 252L corequisite); ADN 250 and ADN 251L

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on the aging process as it relates to normal aging, changing biological, interpersonal and intrapersonal needs. It also focuses on the application of the nursing process in caring for patients with disturbances in perception, coordination and mobility. The pathophysiology of disease processes, as well as medical and nursing interventions and rehabilitative approaches to restoring and maintaining optimum health are discussed. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 251 and ADN 251L, and pass both courses together. They cannot be taken individually for credit.

2 Units

36 Lecture hours

ADN 251L

Medical/Surgical Nursing II Lab

Prerequisite: ADN 155, ADN 155L and ADN 156, ADN 156L (for generic ADN students); ADN 075 (for LVN to ADN students)

Corequisite: ADN 252 and ADN 252L (students who have an active Psychiatric Technician license are exempt from ADN 252 and ADN 252L corequisites); ADN 250 and ADN 251

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on the aging process as it relates to normal aging, changing biological, interpersonal and intrapersonal needs. It also focuses on the application of the

nursing process in caring for patients with disturbances in perception, coordination and mobility. The pathophysiology of disease processes, as well as medical and nursing interventions and rehabilitative approaches to restoring and maintaining optimum health are discussed. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 251 and ADN 251L, and pass both courses together. They cannot be taken individually for credit.

2.5 Units
136 Lab hours

ADN 252
Psychiatric/Mental Health Nursing

Prerequisite: ADN 155, ADN 155L and ADN 156, ADN 156L; OR ADN 075 and active California Vocational Nursing License

Corequisite: ADN 252L

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on application of the nursing process as a problem solving approach to assessment, problem identification and intervention for patients with psychiatric and mental health problems. Basic concepts related to biological, intrapersonal and interpersonal factors in mental health and mental illness are discussed. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 252 and ADN 252L, and pass both courses together. They cannot be taken individually for credit.

2 Units
36 Lecture hours

ADN 252L
Psychiatric/Mental Health Nursing Lab

Prerequisite: ADN 155, ADN 155L and ADN 156, ADN 156L; OR ADN 075 and active California Vocational Nursing License

Corequisite: ADN 252

Transfers to: CSU

This course focuses on application of the nursing process as a problem solving approach to assessment, problem identification and intervention for patients with psychiatric and mental health problems. Basic concepts related to biological, intrapersonal and interpersonal factors in mental health and mental illness are discussed. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 252 and ADN 252L, and pass

both courses together. They cannot be taken individually for credit.

1.5 Units
81 Lab hours

ADN 253
Medical/Surgical Nursing III

Prerequisite: ADN 250, ADN 250L, ADN 251, ADN 251L, ADN 252, and ADN 252L

Corequisite: ADN 253L

Transfers to: CSU

This course focuses on the nursing process with patients requiring complex nursing care. The course emphasizes generalized emergencies, immunologic problems and oncologic problems. The course integrates all past nursing theory to assist the nursing student with advanced nursing concepts. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 253 and ADN 253L, and pass both courses together. They cannot be taken individually for credit.

2 Units
36 Lecture hours

ADN 253L
Medical/Surgical Nursing III Lab

Prerequisite: ADN 250, ADN 251, ADN 251L, ADN 252, and ADN 252L

Corequisite: ADN 253

Transfers to: CSU

This course focuses on the nursing process with patients requiring complex nursing care. The course emphasizes generalized emergencies, immunologic problems and oncologic problems. The course integrates all past nursing theory to assist the nursing student with advanced nursing concepts. The students will apply the theoretical concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 253 and ADN 253L, and pass both courses together. They cannot be taken individually for credit.

3 Units
162 Lab hours

ADN 254
Leadership and Management in Nursing

Prerequisite: ADN 253 and ADN 253L

Corequisite: ADN 254L

Transfers to: CSU

This course focuses on principles of leadership and management as well as current trends in nursing practice. The legal and ethical responsibilities of the professional nurse will be discussed as well as the specific skills and attributes needed as students' transition to nursing practice as a

member of a team. Methods to maintain professional competence and advancement in the profession will be explored. This course is designed for students in the Associate Degree Nursing Program. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 254 and ADN 254L, and pass both courses together. They cannot be taken individually for credit.

1.5 Units
27 Lecture hours

ADN 254L
Leadership and Management in Nursing Lab

Prerequisite: ADN 253 and ADN 253L

Corequisite: ADN 254

Transfers to: CSU

This course focuses on the application of theories and principles of leadership and management. Students will apply theory content while working in a clinical preceptorship, providing care under the guidance of an RN preceptor. The Board of Registered Nursing requires that students must be concurrently enrolled in both ADN 254 and ADN 254L, and pass both courses together. They cannot be taken individually for credit.

2.5 Units
135 Lab hours

ADN 290
Cooperative Work Experience/RN Transition

Prerequisite: California Registered Nurse License; Recent graduate of an RN program within the last 12 months

Transfers to: CSU

This course is designed for students who have already obtained their Registered Nurse license but have not been able to obtain employment. This course is a collaboration between Rio Hondo College and local Medical Centers that will provide a structured clinical practice environment and learning opportunities that support a deeper understanding of the health-care environment in which Registered Nurses work. The course will be structured with 5 hours of theory at Rio Hondo College and 235 hours of clinical/simulation course work. The theory course work will review professionalism, interview skills and knowledge, skills and attitudes necessary to improve the quality and safety of the healthcare system. The clinical and simulation experience will provide the new graduate the opportunity to increase competence with clinical skills, critical thinking and professional role assimilation. Unlike other CWE courses, this course may only be taken once for 4 units of credit.

4 Units
5 Lecture hours
235 Other hours

ASTRONOMY

Division of Mathematics, Sciences, and Engineering

ASTR 110

General Astronomy

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC (credit limit), CSU (*Students will receive credit from UC for only one of the following courses: ASTR 110 or ASTR 110H)*

This course is designed to develop an appreciation of astronomy and a broad cosmic perspective. The emphasis of the course is on the current state of knowledge of our solar system, our galaxy, and the universe. Topics on the frontier of astronomical knowledge such as black holes and the search for extraterrestrial life will be explored. This course is designed for those with an interest in astronomy or anyone who desires to expand their cosmic horizons.

3 Units

54 Lecture hours

ASTR 110H

General Astronomy Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ASTR 110 or ASTR 110H)

This course is designed to develop an appreciation of astronomy and a broad cosmic perspective. The emphasis of the course is on the current state of knowledge of our solar system, our galaxy, and the universe. Topics on the frontier of astronomical knowledge such as black holes and the search for extraterrestrial life will be explored. This course is designed for those with an interest in astronomy or anyone who desires to expand their cosmic horizons.

3 Units

54 Lecture hours

ASTR 112

Observational Astronomy

Prerequisite/Corequisite: ASTR 110

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ASTR 112 or ASTR 114)

This course is designed to acquaint the student with the methods, tech-

niques, and tools of the astronomer. Indoor labs will demonstrate classical methods and techniques of science. Students will learn the critical thinking processes needed to acquire and analyze scientific data. Students will become familiar with visible objects including constellations, planets, star clusters, galaxies, meteor, and the phases of the moon. Students will learn to locate objects visually and use astronomical coordinate systems. The development of skill in the operation of optical telescopes is emphasized. This course is designed for those with an interest in learning night skies and the tools astronomers use to explore the cosmos. Observatory facilities will be utilized often, weather permitting.

1 Unit

54 Lab hours

ASTR 299

Directed Study: Astronomy

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

AUTOMOTIVE TECHNOLOGY

Division of Career & Technical Education

AUTO 045

Honda/Acura Express Service

Prerequisite: AUTO 101 or AUTO 102
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course introduces maintenance light repair and service operations for late model Honda/ Acura vehicles. Students will engage in MLRS interactive activities, lessons and/or special assignments via distant learning using Honda's Interactive Training and Support Network. Upon completion of each MLRS training module students will be assessed on the subject matter. Successful completion of all MLRS modules will then be accompanied by an Express Service performance evaluation. During Express Service students will have an opportunity to demonstrate their skills in MLRS areas in a mock dealership environment. Successful completion of all MLRS modules and the Express Service evaluation will count toward the students MRLS certification/certificate.

4 Units

72 Lecture hours

AUTO 045I

Honda/Acura Chassis Electrical Systems

Prerequisite: AUTO 106 or AUTO 140
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

AUTO 045I is a course in automotive chassis electronics. The content reflects operation of digital circuits, semi-conductor devices, and methods for troubleshooting complex problems. Students will engage in a variety of activities using diagnostic equipment, the five-step diagnostic method, and research to discover vehicle failures. Students will also be expected to obtain research materials from Honda's interactive active Technical Library to support their diagnosis. The course intention is to build upon the student's prior knowledge of electronics using basic parallel/series circuit design fundamentals as the foundation. Students will learn how to make circuit performance predictions from schematics; along with test data, they will be able to navigate a circuit's operation via diagnostic flow charts. Successful course completion shall include the following: finish designated Honda Interactive Network Training (HINT) modules with proof of module post-

ing on the students Dealer Personal Tracking System (DPTS), correctly diagnose vehicle failures, completion of homework assignments and perform satisfactorily on practical exams. AUTO 0451 is a requirement for the Honda PACT Certificate or AS Degree.

4 Units

72 Lecture hours

AUTO 046

Honda/Acura Automatic Transmission Systems

Corequisite: AUTO 125

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course provides instruction relating to specific automatic transmission internal operation: drive, driven, and holding components, along with fluid pressures and sensor voltages. Students will engage in activities using special Honda diagnostic equipment to research automatic transmission topics from the Honda Interactive Training Network (HINT). Students will also participate in instructor lead demonstrations and interactive classroom assignments. Course completion shall include finishing all required HINT course training modules and proof of module posting on American Honda's Dealer Personal Tracking System (DPTS). The course is a requirement for the Honda/Acura Professional Career Training Program (PACT Program) Powertrain and Transmission Systems Certificate of Achievement and is in partial fulfillment of the Honda PACT AS degree.

4 Units

72 Lecture hours

AUTO 0461

Honda/Acura Occupant Safety Systems

Corequisite: AUTO 240

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course provides instruction relating to specific supplemental restraint systems: cable reel, Occupant Detection Systems (ODS), electrical system voltage thresholds, impact sensor inputs, air bag deployment and Supplement Restraint Systems (SRS) safety. Students will engage in activities using special Honda diagnostic equipment to research SRS repair and safety precaution topics from the Honda Interactive Training Network (HINT). Students will also participate in instructor led demonstrations and interactive classroom assignments. Course completion shall include finishing all of the HINT course training modules and proof of module posting on American Honda's Dealer Personal Tracking System (DPTS). The course is a requirement for the Honda/Acura Professional Training

Program (PACT Program) Air Conditioning and Supplemental Restraint Systems Certificate of Achievement and is in partial fulfillment of the Honda PACT Program AS degree.

4 Units

72 Lecture hours

AUTO 065

Smog Technician Diagnostic and Repair Procedures

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to provide the student with the ability to satisfy the Bureau of Automotive Repair (BAR) Smog Check Technician training requirement of successfully completing the Specified Diagnostic and Repair Training Course when applying for the California Smog Check Technician licensing examination. Course content includes diagnostic and repair strategies in Electrical and Electronic Systems, Engine Performance, and Advanced Engine Performance. This course is also intended for the student as a test preparation course for the Automotive Service Excellence (ASE) A6, A8, and L1 certification exams. Upon successful completion of this course, the student will receive a certificate of completion from the Rio Hondo Automotive Technology Department. Students, with permission from the Division, may re-enroll only one time for certification or licensure standards.

3 Units

45 Lecture hours

27 Lab hours

AUTO 101

Introduction to Automotive Service and Repair: Underhood Service

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is an introductory course designed to provide the student with the fundamentals of the engine and its subsystems of the modern automobile. Students will learn basic automotive tool and equipment use and how to safely perform basic repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own vehicles to complete required tasks. This course is designed to be a companion course to AUTO 103 and AUTO 106, and is one of the three prerequisite courses for AUTO 107. Students are encouraged to complete all three courses in order to obtain a firm foundation in this subject, and it is required for the General Service Technician Certificate Program.

3 Units

45 Lecture hours

27 Lab hours

AUTO 102

Introduction to Honda/Acura Service and Repair

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This is an introductory course designed to provide the student with the fundamentals of operation of the various systems of Honda and Acura vehicles. Students will learn basic automotive tool and equipment use and how to safely perform many basic repair and maintenance operations. Students will learn using Honda and Acura vehicles, and school provided units and automotive component parts. All completed work will be reported on American Honda's Dealer Personal Tracking System (DPTS). This course is part of American Honda's Professional Automotive Career Training (PACT) program.

3 Units

45 Lecture hours

27 Lab hours

AUTO 103

Introduction to Automotive Service and Repair: Undercar Service

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is an introductory course designed to provide the student with the fundamentals of the transmission, brakes, suspension, heating and air conditioning, engine performance, and emission control systems of the modern automobile. Students will learn basic automotive tool and equipment use and how to safely perform basic repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own vehicles to complete required tasks. This course is designed to be a companion course to AUTO 101 and AUTO 106, and is one of the three prerequisite courses for AUTO 107. Students are encouraged to complete all three courses in order to obtain a firm foundation in this subject, and it is required for the General Service Technician Certificate Program.

3 Units

45 Lecture hours

27 Lab hours

AUTO 106

Automotive Electrical Tools and Diagnostic Procedures

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is an introductory course designed to provide the student with the fundamentals of the electrical systems of the modern automobile.

Emphasis will be placed on electrical fundamentals, symbols and circuit diagrams, batteries, starting, charging, ignition, and lighting systems. Students will learn the proper use of automotive electrical tools and equipment, and how to safely perform basic vehicle electrical repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own vehicles to complete required tasks. This course is designed to be a companion course to AUTO 101 and AUTO 103, and is one of the three prerequisite courses for AUTO 107. Students are encouraged to complete all three courses in order to obtain a firm foundation in this subject, and it is required for the General Service Technician Certificate Program.

3 Units
45 Lecture hours
27 Lab hours

AUTO 107
Introduction to Automotive Light Service

Prerequisite: AUTO 101, AUTO 103, and AUTO 106

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This is an introductory course to provide students with working knowledge of light duty service. Students will learn underhood and undercar systems service, battery and basic electrical service, pre-delivery inspection procedures, and preventative maintenance operations. Emphasis will be placed on the safe operation of light-duty service tools and equipment, and general repair procedures of wheels and tires, suspension & steering components, engine and transmission components, engine & vehicle electrical components, and brake system components. This course offers further practice and more experience in the subjects taught in three other introduction courses (AUTO 101, AUTO 103, & AUTO 106).

3 Units
45 Lecture hours
27 Lab hours

AUTO 108
Introduction to Automotive Diesel Service & Operation

Prerequisite: AUTO 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This beginning course introduces students to the field of diesel powered passenger cars theory of operation and general service procedures. This course covers the principals of operation, fuel systems, electrical, exhaust

systems, and controls. This course is for the beginning student, general technicians and emission control (smog) technicians interested in automotive diesel technology.

3 Units
54 Lecture hours

AUTO 110
Introduction to Engine Diagnosis and Tune-Up

Prerequisite: AUTO 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This is an introductory study of automotive diagnosis and tune-up procedures as they pertain to the function and control of the engine, fuel, ignition, starting, and charging systems. This course is first in a series of Engine Diagnosis and Tune-Up classes, and is designed for the student who wants to enter the field of Tune-Up, Driveability, and Emissions.

3 Units
45 Lecture hours
27 Lab hours

AUTO 115
Computerized Engine Controls and Diagnostics

Prerequisite: AUTO 106
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide the student with an introduction to the ASE L1 Advanced Engine Performance "Composite Vehicle" by the use of simulator boards and computer-based training methods. This is an introductory study of computerized engine controls and diagnosis as it pertains to the function and control of the engine, fuel, ignition, and emission control systems. Emphasis will be placed upon system components and their operational characteristics. Basic troubleshooting techniques of the engine, fuel, ignition, and emission control systems will be demonstrated.

3 Units
54 Lecture hours

AUTO 118
Light Duty Vehicle Diesel Fuel Systems & Emission Control Diagnostics

Prerequisite: AUTO 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 108
Transfers to: CSU

This course is designed to strengthen existing student skills in the field of diagnosing Light Duty Vehicle diesel fuel systems and related driveability and emission control concerns. This course is also for emission control

(smog) technicians desiring to take and pass the ASE A9 Light Vehicle Diesel Engines certification exam covering advanced auto/truck diesel technology. Course content includes an advanced study emphasizing the latest theories and principles and troubleshooting procedures of late-model vehicle diesel fuel systems. Emphasis will be placed on advanced diesel engine diagnosis and repair, and diesel engine air, fuel, and emission systems diagnosis and repair. The use of a variety of modern diagnostic tools and equipment is included. Students, with permission from the Division, may re-enroll only one time for certification or licensure standards.

3 Units
45 Lecture hours
27 Lab hours

AUTO 120
Engine Tune-Up/Performance

Prerequisite: AUTO 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 110; AUTO 115
Transfers to: CSU

This course is designed to strengthen the student knowledge of modern automotive fuel and ignition systems and the functional knowledge of system components. The class is structured to provide 'hands-on' diagnostic experience in system failure analysis, troubleshooting of components utilizing modern service repair techniques. Emphasis is placed on electronic diagnosis using Scan-Tools, DVOM, Digital Volt Ohm Meters, Lab Scopes, Exhaust Analyzers, information retrieval systems and diagnostic flow charts.

4 Units
54 Lecture hours
54 Lab hours

AUTO 125
Power Train System Service and Transmission Diagnostics

Prerequisite: AUTO 102 or AUTO 103
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course in power train service and light repair addresses topics in Manual Transmissions, Automatic Transmissions/ Transaxles, Differentials, Clutches and Drive shafts. Emphasis will be placed on correct procedures for sustaining transmission service life, identifying service intervals for prolonging component life, procedures for proper transmission removal and reinstallation and inspection of components. Students will be informed to specific power train related faults, how problems are diagnosed, and protocol for updat-

ing transmission shift logic using updated computer software. Topics will be facilitated through class room discussions, live demonstration as well as student laboratory exercises. Students will use scan tools, flushing equipment, computers and a variety of specialty tools to assist them during their classroom and laboratory experiences.

4 Units

54 Lecture hours

54 Lab hours

AUTO 128

Fuel Injection Systems I

Prerequisite: AUTO 106

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 110

Transfers to: CSU

This course is designed to provide the student with the fundamentals of pre-OBD-II Engine Management Systems related to fuel injected vehicles. Students will learn how to use specific tools and equipment, and how to safely perform basic repair and maintenance operations. Emphasis will be placed upon the history and evolution of fuel injection and engine management systems used on vehicles from the late 1960's to 1995. Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other related topics will be discussed. This course requires the student to have a solid background regarding the technical knowledge of basic Gasoline Engine Fuel and Ignition Systems as a prerequisite, and is required for the Automotive Electrical, Fuel & Safety Systems Certificate Program.

3 Units

54 Lecture hours

AUTO 130

Level-I Smog Technician Training Course: Engine and Emission Control Fundamentals

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 065

Transfers to: CSU

This course is designed to provide the student with the ability to satisfy the Bureau of Automotive Repair (BAR) Smog Check Technician training requirement of successfully completing the Level-I Smog Technician Training Course when applying for the California Smog Check Technician licensing examination. Course content includes Engine Theory, Design and Operation, Ignition Systems, Fuel Systems, Engine Management Systems, and Emission Control Systems. Emphasis is placed on proper engine diagnostic procedures and On-Board Diagnostic Systems (OBD-I and OBD-II). Lab activities focus on the use of testing equipment,

scan tools, digital scopes and meters, as well as inspection and repair procedures of vehicles that fail the Smog Test. Upon successful completion of this course, the student will receive a certificate of completion from the Rio Hondo Automotive Technology Department. Students with permission from the Division may re-enroll only one time for certification or licensure standards.

3 Units

45 Lecture hours

27 Lab hours

AUTO 135

Level-II Smog Technician Training Course: Smog Check Inspection Procedures

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 130

Transfers to: CSU

This course is designed to provide the student with the ability to satisfy the Bureau of Automotive Repair (BAR) Smog Check Technician training requirement of successfully completing the Level-II Smog Technician Training Course when applying for the California Smog Check Technician licensing examination. Course content includes Customer Awareness, Program Administration, Equipment Maintenance, Inspection and Testing Procedures, and Pass/Fail Reports. Emphasis is placed on the practical application of the loaded and non-loaded modes of emissions testing. Lab activities focus on vehicle identification, visual and functional inspections, calibration of testing equipment, as well as performing complete smog checks inspections of vehicles. Upon successful completion of this course, the student will receive a certificate of completion from the Rio Hondo Automotive Technology Department. Students with permission from the Division may re-enroll only one time for certification or licensure standards.

3 Units

45 Lecture hours

27 Lab hours

AUTO 138

Fuel Injection Systems II

Prerequisite: AUTO 106

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 110

Transfers to: CSU

This course is designed to provide the student with the fundamentals of post-OBD-II Engine Management Systems related to fuel injected vehicles. Students will learn how to use specific tools and equipment, and how to safely perform basic repair and maintenance operations. Emphasis will be placed upon the history and evolution of fuel injection and

engine management systems used on vehicles from 1996 to the present. Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other related topics will be discussed. This course requires the student to have a solid background regarding the technical knowledge of basic Gasoline Engine Fuel and Ignition Systems as a prerequisite, and is required for the Automotive Electrical, Fuel & Safety Systems Certificate Program.

3 Units

54 Lecture hours

AUTO 140

Body and Chassis Electrical Systems

Prerequisite: AUTO 102 or AUTO 106

Advisory: READ 043 or appropriate assessment; AUTO 157

Transfers to: CSU

This course provides an overview of the modern automobile's electrical system as related to the body and chassis of the vehicle. The theory of operation, operational characteristics and methods of problem diagnostics and repair for the following systems are included: lighting, instruments, windshield wipers, power windows/seats/mirrors, audio systems, convertible tops, safety restraints, (SRS) Supplemental Restraint Systems, and anti-theft systems. This course prepares the student for the (ASE) Automotive service Excellence A-6 exam and is intended for Automotive majors. Students with permission from the Division may re-enroll only one time for certification or licensure standards.

4 Units

54 Lecture hours

54 Lab hours

AUTO 141

Alternative Fuels I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is an introductory course on alternative fuels as they pertain to use in modern vehicles. Various alternative fuels will be compared, such as Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG), Hydrogen, Bio-Fuel, LPG, etc. The theory of operation, system components, and the safe handling of these fuels are included. Students will develop skills in the area of vehicle preparation, system component identification, and repair procedures related to vehicles using alternative fuels. This course is designed for students and technicians working on stationary power engines, transportation and clean fuels seeking to improve skills related to the maintenance and repair

of gaseous fuels. This course provides students with ASE F1 or H1 test prep information.

3 Units

45 Lecture hours

27 Lab hours

AUTO 142

Alternative Fuels II

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; AUTO 141

Transfers to: CSU

This is the second course on alternative fuel systems used to power modern vehicles. Emphasis will be placed on installation, diagnostic procedures, laptop computers, and computer monitoring of Compressed Natural Gas (CNG), and Liquid Natural Gas (LNG) systems. The application of other alternative fuels such as Hydrogen, LPG, Bio Fuels, etc will also be covered. Students will also develop skills that interface with modern technology computer based automotive electronic and network controls. SAE and CAN network control systems will also be covered. This course is designed for the experienced technician working in the field of stationary power engines, transportation and clean energy fuels seeking to improve skills related to the installation and repair of gaseous fuels.

4 Units

54 Lecture hours

54 Lab hours

AUTO 147 (C-ID ALTF 100X)

Introduction to Hybrid and Electric Vehicle Technology

Prerequisite: AUTO 157

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This course explores the use of Hybrid and Electric power for vehicle transportation. Topics will include: safety when using high voltage, maintenance, drivability, inverter power transfer, battery technologies, hydrogen electric power, and fuel cell technology. Physics of battery storage, Hybrid generation systems, Electric vehicle applications and their integrated systems from many manufacturers will be discussed. This course is suitable for student's entering into alternative fuels or power generation and energy technology field. This course is a required course for the Alternative Fuels Certificate and Degree.

3 Units

45 Lecture hours

27 Lab hours

AUTO 148

Vehicle Safety, Comfort and Convenience Systems

Prerequisite: AUTO 106

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfer to: CSU

This course is designed to provide the student with the fundamentals of Automotive Safety, Comfort and Convenience Systems related to the modern automobile. Students will learn how to use specific tools and equipment, and how to safely perform basic repair and maintenance operations. Emphasis will be placed upon the SRS Airbag Restraint Systems, ABS and Traction Control Systems, AC and Heating Systems, Lighting Systems, and Theft-deterrent Systems. Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other related topics will be discussed. This course requires the student to have a solid background regarding the technical knowledge of basic Automotive Electrical and Electronic Systems as a suggested prerequisite, and is required for the Automotive Electrical, Fuel & Safety Systems Certificate Program.

3 Units

54 Lecture hours

AUTO 150

Engine Electrical Systems

Prerequisite: AUTO 102 or AUTO 106

Advisory: AUTO 115

Transfers to: CSU

This course discusses the modern automobile's electrical system as related to the engine and various engine related systems. The theory of operation, operational characteristics and methods of problem diagnosis and repair for the following systems are included; electronic ignition systems, electronic fuel injection, engine management, emission control, charging, cooling and starting. This course prepares the student for the (ASE) Automotive Service Excellence; A-8 Engine Performance Exam and is intended for Automotive majors. Students with permission from the Division may re-enroll only one time for certification and licensure standards.

4 Units

54 Lecture hours

54 Lab hours

AUTO 155

Automotive On-Board Diagnostics Generations One and Two (OBD I and OBD II)

Prerequisite: AUTO 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 106; AUTO 120

Transfers to: CSU

This course will provide students with the fundamentals of Automotive On-Board Diagnostics, Generations One and Two (OBD-I and OBD-II). Students will discuss the history, regulations, vocabulary, and diagnostic strategies of OBD-I and OBD-II equipped vehicles. Topics of discussion include Safety, Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other Fuel & Ignition-related subjects. This course requires the student to have a solid background regarding the technical knowledge of basic Gasoline Engine Fuel and Ignition Systems. This course is designed for all automotive majors with a background in advanced emission repair.

3 Units

45 Lecture hours

27 Lab hours

AUTO 157

Automotive Specialized Electronics Training

Prerequisite: AUTO 106

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an overview of the principles of automotive electronics. Topics covered include electrical theory, fundamentals of circuit construction, computers, semiconductors, microprocessors, integrated circuits (IC), types of output signals, wire repair techniques, meter usage and strategy based diagnostics. A demonstration General Motors circuit board will be used to illustrate circuit board function. This course is designed for entry level technicians or students who need an understanding of the basics of automotive electronics.

4 Units

72 Lecture hours

AUTO 158

Automotive High Voltage Safety

Prerequisite: AUTO 157

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course continues the study of the use and service of hybrid electronic generation, plug-in battery-electric power, and fuel cell power generation for vehicles. Topics will include OSHA/NEC/NFPA high-voltage safety specifically for the service technician. Dynamics of high-voltage battery energy, hybrid generation systems, electric vehicle applications and their integrated systems from many manufacturers will be discussed. Battery storage systems for home charging usage as they apply to the home charging of a plug-in vehicle will also be addressed. High-voltage battery management systems

including active/passive designs that control charging system safe operation, diagnosing with proper test tools and equipment, will be the primary focus of this course. This course is for students working in the hybrid/electric vehicle energy, fuel cell power engineering and technology fields.

2 Units
27 Lecture hours
27 Lab hours

AUTO 160 **Upper End Engine Rebuilding and Machining**

Prerequisite: AUTO 101 or AUTO 102
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course provides occupational preparation in the skills required in the adjustment and repair of the modern automobile engine upper end and valve train assembly. Emphasis is placed on problem diagnosis, repair techniques, service procedures, and machining operations. This course prepares the student for the (ASE) Automotive Service Excellence A-1 exam and is intended for automotive majors. Students with permission from the Division may re-enroll only one time for certification or licensure standards.

4 Units
54 Lecture hours
54 Lab hours

AUTO 170 **Lower End Engine Rebuilding and Machining**

Prerequisite: AUTO 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 160
Transfers to: CSU

This course provides occupational preparation in the skills required for adjustment and repair of modern automobile engine lower end assembly. Emphasis is placed on problem diagnosis, repair techniques, service procedures, and machining operations. This course prepares students for the Automotive Service Excellence (ASE) A-1 exam and is intended for automotive majors.

4 Units
54 Lecture hours
54 Lab hours

AUTO 180 **Advanced Automotive Diagnostic Procedures and Practices**

Prerequisite: AUTO 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to strengthen existing student skills in the field

of modern automotive technology, service, and repair. Course content includes an advanced study emphasizing the latest theories and principles of automotive diagnosis and troubleshooting procedures. Emphasis will be placed on advanced powertrain and powertrain management systems, electronically controlled systems, and vehicle network systems diagnosis and repair. The use of a variety of modern diagnostic tools and equipment is included.

3 Units
45 Lecture hours
27 Lab hours

AUTO 190 **Engine Blueprinting & Machining**

Advisory: AUTO 160 or AUTO 170; READ 043 or appropriate assessment
Transfers to: CSU

This is an advanced course for students interested in engine blueprinting and engine machining practices. Topics include: cylinder block machining and preparation, cylinder head machining and repair, crankshaft materials and construction, connecting rod applications and machining, piston design and applications as well as camshaft lobe applications and profile analysis. Students must be proficient with basic precision instruments or have prior experience with engine machining or assembly practices. Emphasis will be placed upon engine blueprinting methods machining operations and component applications.

3 Units
45 Lecture hours
27 Lab hours

AUTO 200 **Suspension, Steering, and Alignment Service**

Prerequisite: AUTO 103
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course discusses the principles of suspension, steering and wheel alignment for modern imported and domestic automobiles and light trucks. Emphasis is placed on developing skills required in the diagnosis, and/or repair and adjustment to steering systems and wheel alignment angles. Complete suspension and steering system overhaul will be covered in the laboratory. Computerized wheel alignment and computerized wheel balancing equipment will be used / demonstrated. This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in suspension, steering and alignment. Students with permission from the Division may reenroll only one

time for certification or licensure standards.

4 Units
54 Lecture hours
54 Lab hours

AUTO 201 **Automotive Brake and Suspension Service**

Prerequisite: AUTO 102 or AUTO 103
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course discusses brakes and suspension theory of operation, service and repair procedures, related tool and equipment use and strategy based problem diagnosis. These procedures for imported and domestic automobiles and light trucks are developed through classroom discussions, demonstrations and laboratory experiences. This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in brake and suspension service.

4 Units
54 Lecture hours
54 Lab hours

AUTO 210 **Automotive Brake Systems**

Prerequisite: AUTO 103
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course discusses modern disc and drum brake theory of operation, service and repair procedures, related tool and equipment use and strategy based problem diagnosis. These procedures for imported and domestic automobiles and light trucks are developed through classroom discussions, demonstrations and laboratory experiences. This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in Brake service. Students with permission from the Division may reenroll only one time for certification or licensure standards.

4 Units
54 Lecture hours
54 Lab hours

AUTO 211 **Antilock Brakes/Traction Control Systems**

Prerequisite: AUTO 103
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 210
Transfers to: CSU

This course is designed for students wanting to work in the automotive sector or automotive technicians

needing to improve their skills and knowledge in modern Anti-lock and/or Traction Control systems. This course will provide instruction in automotive anti-lock brake systems, traction control systems and vehicle stabling assist (VSA), including diagnosis, operation and maintenance of ABS/TCS/VSA. The course will include the use of scanners, DVOM meters and lab-scopes in diagnosis of various ABS/TCS/VSA systems; both 2 wheel and 4 wheel systems will be covered.

3 Units

54 Lecture hours

AUTO 220

Manual Drive Trains and Axles

Prerequisite: AUTO 103

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 125

Transfers to: CSU

This course discusses modern manual transmissions, transaxles, drivelines, differentials, and 4WD/AWD systems theory of operation, methods of repair, service, equipment operation and techniques of problem diagnosis. Procedures for import and domestic vehicles are developed through classroom discussion, demonstrations and laboratory experiences. This course prepares the student for the (ASE) Automotive Service Excellence A-3 Exam and is intended for automotive majors. Students with permission from the Division may re-enroll only one time for certification or licensure standards.

4 Units

54 Lecture hours

54 Lab hours

AUTO 230

Automatic Transmission/Transaxle

Prerequisite: AUTO 103

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AUTO 125

Transfers to: CSU

This course is designed to provide instruction in Automatic Transmission/Transaxle systems. Included will be the application of friction materials, planetary gear components, hydraulic components; both hydraulically controlled and electronically controlled, fluid types and sealing materials. The student will achieve skill in diagnosis, removal, disassembly, reassembly and rebuilding transmission units to manufacturer's specifications and learn part nomenclature and function. Students with permission from the Division may reenroll only one time for certification and licensure standards.

4 Units

54 Lecture hours

54 Lab hours

AUTO 240

Heating and Air Conditioning

Prerequisite: AUTO 102 or AUTO 103

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to provide instruction on the operating principles of common automotive heating and air conditioning systems. Topics include new service equipment, contamination issues, servicing and diagnosing manual and automatic systems, and retrofitting R-12 systems to R-134a, as well as the rules of AQMD/EPA. Students will be given the opportunity to earn their certification license (EPA Rule 1411). Students with permission from the Division may enroll in this course only one time for certification or licensure standards.

4 Units

54 Lecture hours

54 Lab hours

AUTO 256

Automotive Scantools and Vehicle Network Systems

Prerequisite: AUTO 106

Advisory: READ 043 or appropriate assessment; AUTO 150

Transfers to: CSU

This course is designed to enhance the student's electrical and electronic diagnostic skills in both the automotive powertrain management spectrum. This course emphasizes an in-depth study of various automotive computer systems, vehicle communication network systems, as well as the latest Scantools available to help aid in diagnostics of these systems. Course content includes advanced electrical and electronic systems theory and diagnosis, OBD-I and OBD-II engine and transmission management systems diagnostics, and basic vehicle network systems diagnostics. The majority of the course content focuses on proper Scantool usage, including proper tool selection, updating software, identifying and using data streams, and understanding the numerous serial data protocols, including CAN data communications.

3 Units

54 Lecture hours

AUTO 260

Advanced Hybrid/Electric Vehicle

Prerequisite: AUTO 147

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; AUTO 157

Transfer to: CSU

This course continues the study of the use and service of Hybrid Electronic generation and Plug-in Battery

Electric power for vehicle transportation. The course is not for beginner technicians. Topics will include: OSHA/NEC/NFPA safety when using high voltage, vehicle maintenance, drivability conditions, inverter power transfer, battery storage technologies, regeneration of electrical power from kinetic energy, Level I, Level II, Level II battery charging and fuel cell technology. Dynamics of battery storage, Hybrid generation systems, Electric vehicle applications and their integrated systems from many manufacturers will be discussed. High-Voltage battery management systems including active/passive design to charging systems will be primary focus of this course. This course is for student's working in the Hybrid and Electric vehicle, power engineering and technology field.

4 Units

54 Lecture hours

54 Lab hours

AUTO 265

Fuel Cell Technology Fundamentals

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; AUTO 106

Transfer to: CSU

This course creates the fundamental learning process of the different types of fuel cells and the application for power generation for mobile, vehicular, and stationary power. Topics will include: OSHA/NEC/NFPA safety standards when developing, servicing and working in a high voltage/power inverter transfer, battery storage technologies, regeneration of electrical power from kinetic energy. A descriptive overview of key fuel cell technologies including proton exchange membrane (PEM), direct methanol fuel cell, and solid oxide fuel cell will be provided together with potential applications for transportation, stationary, and portable power. Hydrogen production/storage will also be covered.

4 Units

54 Lecture hours

54 Lab hours

AUTO 290

Cooperative Work Experience/Internship for Automotive Technology Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under the supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or profes-

sional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the automotive/transportation field and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 hours

AUTO 299

Directed Study in Automotive Technology

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Automotive Technology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

AUTO 300

Assessment of the Automotive Industry

Prerequisite: Enrollment requires an AS degree in Automotive Technology or similar field, and special approval from the program advisor
Advisory: PHY 120, ENGL 201 or ENGL 201H, and MATH 130 or MATH 130H or MATH 160

This course provides the Automotive Technology student with a detailed practical study of how to be successful in the Automotive Service, Parts, and Sales Industry. This is a practical study of current service, parts, and sales practices performed in dealerships and independent repair shops, while also discussing the review and preparation of the theory and

skills necessary to successfully pass the Automotive Service Excellence (ASE) Exams relevant to Industry Standards. Topics include becoming efficient in the shop, mastering the various pay systems, understanding managers and owners, building customer loyalty, demonstrating workplace and social ethics, and making Customer Satisfaction Index (CSI) values work for all employees. In addition, vehicle engines, transmissions, brakes, suspension, air conditioning, and engine performance systems, parts, and components, and new and emerging technologies that support the service and repair of the modern automobile will be discussed. Emphasis will be placed upon the important tasks of proper repair procedures, the safe use of tools, equipment, technical data, and scan tools, as well as the ins-and-outs of the business of service, parts, and sales. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 310

The Global Development and Advancement of the Automobile

Prerequisite: Enrollment requires an AS degree in Automotive Technology or similar field, and special approval from the program advisor
Advisory: PHY 120, ENGL 201 or ENGL 201H, and MATH 130 or MATH 130H or MATH 160

This course provides the Automotive Technology student with a detailed practical study of the development of the Automobile from its beginnings to the present day. This is a practical study of the invention of the first suitable power source to be adopted to self-propel a road vehicle and how it resulted in a major paradigm shift to revolutionize transportation and the ability of individual mobility. Topics include the development of animal-drawn transportation devices and the quest for a prime mover, the pioneering era of the automobile and how it lead to it being an industrial product, mass-production of the automobile and how it became a consumer product, and new and emerging technologies that support the automobile and motorized traffic and transportation systems. Emphasis will be placed upon the global perspective, particularly the developments that occurred in the United States, Europe, and Asia, and the numerous technological

and business revolutions of the first and second half of the 20th century. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle-After Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 320

The Progressive Growth of Automotive Technology

Prerequisite: Enrollment requires an AS degree in Automotive Technology or similar field, and special approval from the program advisor

Advisory: PHY 120, ENGL 201 or ENGL 201H, and MATH 130 or MATH 130H or MATH 160

This course provides the Automotive Technology student with a detailed practical study of the development of Automotive Technology from its beginnings to the present day, focusing on the basics and its long-term development. This is a practical and contextualized study of the importance of the automotive technological changes that have evolved from both engineering improvements and cultural changes. Topics include the development of vehicle layout and design, the needs and behaviors of drivers, producers, non-users, and other stakeholders, and the ever-changing computerized control of its systems and other emerging technologies. Emphasis will be placed upon the systematic overview of the mechanization and electrification of the automobile, not only as machines, but as a testimony of their important role in the way we live today. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 340

Analyzing Vehicle Electrical/Electronic Systems

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 160, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of Electrical and Electronic Systems of the Modern

Automobile. This is a practical study of computerized vehicle controls and diagnostic strategies as it pertains to the function, operation, and vehicle on-board diagnostic and communication systems of the engine, powertrain, brakes, suspension, safety, convenience, and emission control systems. Topics include emerging technologies, such as modern instrumentation, navigation, and telematics, and the use of vehicle network configuration systems used by late-model automotive manufacturers. Emphasis will be placed upon the design of system parts, components, subsystems, and their operational characteristics, including programmed microprocessors, micro-controllers, and computer-language protocol. Current Industry-approved diagnostic, troubleshooting, and reprogramming techniques and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 350

Principles of Automotive Service Management

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 130 or MATH 130H, PHY 120, MGMT 146

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical study of the management of an automotive and/or transportation-related business. This is a practical and contextualized study of the importance of business practices of the automotive industry that have evolved from dealerships, franchises, and independently-owned service operations. Topics include an understanding of automotive business regulations in the areas of competition, labor laws, securities regulation, consumer protection, and environmental laws. Emphasis will be placed upon an overview of basic business structure, ownership, and various facilities, as well as service operations & management, financial & marketing issues, and customer/employee relations. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment

in the Vehicle Sales and Service Fixed Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 360

Analyzing Vehicle Fuels, Lubricants and Combustion

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 160, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of Fuels, Lubricants, and Combustion of the Modern Automobile. This is a realistic study of the physical and chemical properties of fuels, lubricants, and combustion, including diagnostic strategies as it pertains to the function, operation, and every-day use of the systems and sub-systems of the automotive internal combustion engine and related powertrain components. Topics include emerging technologies, such as modern fuel and lubricant requirements and how they affect combustion, emissions, and maintenance schedules used by late-model automotive manufacturers. Emphasis will be placed upon the design of system parts, components, subsystems, and their operational characteristics, including failure analysis. Current Industry-approved diagnostic and troubleshooting techniques and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 370

Standard Accounting Systems of the Automotive Industry

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 130 or MATH 130H, PHY 120, ACCT 101

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of accounting fundamentals and business management principles, and the adaptation of them to factory-to-store and day-to-day operations. This is a practical study of the theory, principles, and practice of the preparation and interpretation of accounting statements and business management reports. Topics include an overview of computerized accounting information systems, and practices in business management techniques, such as the importance of strong financial

and management control, financial statements and statement analysis. Emphasis will be placed upon the concepts of using accounting fundamental principles, cash & contracts, short-term and long-term liabilities and assets, and stockholders' equity of reporting documents, which are essential to a successful automotive business operation. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle Sales and Service Fixed Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 400

Analyzing Stability, Dynamics, and NVH

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 160, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of Stability, Dynamics, and Noise-Vibration-Harshness (NVH) of the Modern Automobile. This is a practical study of the systems that provide vehicle operation safety, including diagnostic strategies as it pertains to the function, operation, and every-day use of the automotive tires, brakes, steering, and suspension systems. Topics include emerging technologies, such as modern antilock brakes, traction control, electronic stability assist, electronic power steering, active suspension, and tire construction and pressure monitoring systems used by late-model automotive manufacturers. Emphasis will be placed upon the design of system parts, components, subsystems, and their operational characteristics, including techniques in reducing NVH. Current Industry-approved diagnostic and troubleshooting techniques and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 410

Digital Marketing for the Automotive Industry

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 130 or MATH 130H, PHY 120, MRKT 170

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of the various internet and social media marketing strategies, including category-based guidelines impacting the operations of the automotive wholesale and retail business. This is a practical study of the policies and practices of digital marketing, and the necessary tools, templates, and checklists needed to develop a strategic and successful marketing campaign. Topics include in-sourcing and out-sourcing, responsive and adaptive website technologies, developing content, and policies and processes. Emphasis will be placed upon the use of on-line and off-line media to increase customer satisfaction, including the preparation of business management and marketing reports. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle Sales and Service Fixed Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 420

Analyzing Dynamic Functions of Vehicle Drivetrain Systems

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 160, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of Electro-Mechanical and Hydraulic Functions of Transmission and Drivetrain Systems of the Modern Automobile. This is a practical study of the systems that provide vehicle mobility, including diagnostic strategies as it pertains to the function, operation, and everyday use of the automotive transmission, differential, and drive axle systems. Topics include emerging technologies, such as modern dual-clutch transmissions, continuously-variable transmissions, real-time gear shifting mechanisms and controls, torque convertor and convertor clutch designs, torque-management strategies, and innovative designs of gears, bearings, seals, and friction materials used by late-model automotive manufacturers. Emphasis will be placed upon the design of system parts, components, subsystems, and their operational characteristics, including techniques in reducing Noise-Vibration-Harshness (NVH). Current Industry-approved diagnostic and troubleshooting

techniques and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 430

Finance & Insurance Regulations for the Automotive Industry

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 130 or MATH 130H, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of the numerous federal, state, and local agencies and their laws and regulations pertaining to the operation of an automotive wholesale and retail business. This is a practical study of a broad scope of regulatory agencies and regulations such as Department of Motor Vehicles, Internal Revenue Service, Franchise Tax Board, OSHA, EPA, AQMD, NHTSA, Federal Trade Commission, Fair Labor Standards, Truth in Advertising, Truth in Lending, Consumer Leasing Act, Equal Credit Opportunity Act, Fair Credit Reporting Act, and other related agencies and regulations. Topics include an in-depth study of automotive business finance, insurance, and new and certified used vehicle departments within an organization. Emphasis will be placed upon the services offered in these departments and their potential of generating profits and improving customer satisfaction. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle Sales and Service Fixed Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 440

Analyzing Vehicle Safety, Comfort, and Security Systems

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 160, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of Vehicle Occupant Protection, Comfort, and Security Systems of the Modern Automobile. This is a practical study of the systems that provide integrated

vehicle and driving protection against hazardous and inadvertent situations, as well as occupant amenities, including diagnostic strategies as it pertains to the function, operation, and everyday use of active/passive safety, comfort, and convenience systems. Topics include emerging technologies, such as modern airbag systems, accident avoidance and pre-crash/post-crash mitigation of injuries, vehicle-to-vehicle (V2V) infrastructure technology, and innovative driver assistance, infotainment, and occupant contentment and security systems used by late-model automotive manufacturers. Emphasis will be placed upon the design of system parts, components, subsystems, and their operational characteristics, including techniques in reducing vehicle crashes and improving occupant/pedestrian protection. Current Industry-approved diagnostic and troubleshooting techniques and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle After-Sales Field Operations Management spectrum.

3 Units

54 Lecture hours

AUTO 450

Variable & Fixed Operations of the Automotive Industry

Prerequisite: AUTO 300, AUTO 310, AUTO 320, ENGL 201 or ENGL 201H, MATH 130 or MATH 130H, PHY 120

Advisory: ENGL 325

This course provides the Automotive Technology student with a detailed practical application of successful automotive business models of new and used vehicle operations, as well as the operations of service and parts. Topics include an in-depth study of facilities and shop utilization, scheduling of work, sales promotions, using advertising media, inventory control, repair order generation and control, selecting and motivating employees, and directing sales, parts and service staff. Emphasis will be placed upon maximizing and balancing inventory turnaround, wholesale practices, trade-in appraising, vehicle reconditioning, the role that auctions play, the important relationship between the parts and service departments, technician productivity and efficiency, wholesale and retail parts sales, stock and non-stock parts inventory and ordering practices, and part phase-in/phase-out criteria. Current Automotive Industry practices and relevant case studies will be discussed and demonstrated throughout the course. The overall goal of this course is for the student to apply and

demonstrate knowledge and skills that will enable them to advance their employment in the Vehicle Sales and Service Fixed Operations Management spectrum.

3 Units
54 Lecture hours

AUTO 499

Directed Study in Automotive Technology

Prerequisite: Enrollment requires an AS Degree in Automotive Technology or similar field, and special approval from the program advisor; AUTO 440; AUTO 450

Advisory: ENGL 201 or ENGL 201H, MATH 130 or MATH 130H, or MATH 160, PHY 120

The course provides an opportunity for the Automotive Technology student to expand their studies in the Bachelor of Science Degree beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contact the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students are required to take 4 units of Directed Study within a discipline to graduate with a Bachelor of Science degree in Automotive Technology.

4 Units
72 Lecture hours

BIOLOGY

Division of Mathematics, Sciences, and Engineering

BIOL 101

General Biology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: BIOL 101 or BIOL 200)

General Biology 101 is a general education course, open to all students, and is designed to provide an introduction to concepts and principles of modern biology. Topics covered will include cell structure and function, energy relationships, genetic control mechanisms, concepts of evolution, biological diversity, and ecosystem function. The laboratory component of the course emphasizes the applica-

tion of the scientific method as a tool to understanding living systems.

4 Units
54 Lecture hours
54 Lab hours

BIOL 105

Human Biology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course will provide an introduction to the basic principles, structures, functions and biological processes of the human body. This lecture only course will emphasize a scientific viewpoint of the workings of the human body and its interactions with the environment as well as the necessary practices needed to promote a healthy body. The course's target audience are those students pursuing a liberal arts education who are interested in furthering their own knowledge of human biology.

3 Units
54 Lecture hours

BIOL 105L

Human Biology Laboratory

Prerequisite/Corequisite: BIOL 105
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This laboratory course is intended for non-Biology majors as an accompaniment to the lecture course (BIOL 105). The course will provide students with hands-on laboratory experiences to demonstrate and enhance concepts and principles essential to an understanding of the functions of the human body.

1 Unit
54 Lab hours

BIOL 111

Marine Biology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate assessment

Transfers to: UC, CSU

This course is designed to give the student a better understanding of the basic principles of Marine Biology and fulfills the general education lecture requirement for the life sciences. Emphasis is placed on how the scientific method is used to investigate the chemical, physical, and geological properties of the marine environment. Students will learn to distinguish among the diverse organisms and habitats that comprise the ocean's ecosystems. An introduction to the structure and function of

marine ecosystems is provided and the impact of human activity on those systems will be addressed.

3 Units
54 Lecture hours

BIOL 111L

Marine Biology Laboratory

Prerequisite: BIOL 111

Corequisite: BIOL 111

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate assessment

Transfers to: UC, CSU

This laboratory course complements the Marine Biology lecture course and is designed for the student interested in furthering their understanding of the marine environment and its organisms, with emphasis on marine life of the local coasts. The scientific method will be employed to investigate the chemical and physical properties of seawater, the role of pigments in marine algae, the behavior of marine organisms, the basic classification and morphology of marine producers, invertebrates and vertebrates, and adaptations of organisms to specific habitats. Students will use basic laboratory equipment and techniques in both classroom and field-based investigations. Field trips to coastal marine habitats and public aquaria are conducted.

1 Unit
54 Lab hours

BIOL 112

Outdoor Biology

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 033 or MATH 033B or appropriate assessment

Transfers to: UC, CSU

This course is intended for the student who has an interest in the natural world and the ecological relationships of the organisms found within it. The course emphasizes the natural habitats of Southern California and the plants and animals associated with them. Also discussed is the impact human beings have had upon these natural habitats. Field work utilizes the Rio Hondo College Wildlife Sanctuary which allows students to gather original data through firsthand observation and experience. Several additional more distant trips requiring driving explore some of the variety of natural habitats in Southern California.

4 Units
54 Lecture hours
54 Lab hours

BIOL 120**Environmental Biology**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: UC, CSU

Utilizing basic biological concepts, an interdisciplinary approach is used to address environmental challenges. Topics addressed may include ecosystem characteristics and functions, population dynamics, energy and material resource use, pollution, and alternative energy sources. Students in many disciplines will benefit from this course as the social, political, and economic implications of environmental decisions are addressed. This course fulfills the general education requirement in life sciences.

3 Units

54 Lecture hours

BIOL 120L**Environmental Biology Laboratory**

Prerequisite/Corequisite: BIOL 120
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU

This laboratory course compliments the Environmental Biology lecture course and is designed for students interested in furthering their understanding of the environmental sciences. The scientific method will be employed to investigate ecosystems and their functions, natural selection, population interactions, environmental toxicology, radiation exposure effects, soil and groundwater systems, water pollution, alternative energy systems, and environmental resistance.

1 Unit

54 Lab hours

BIOL 125 (C-ID BIOL 110B)**Human Anatomy**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate assessment; BIOL 101, BIOL 105

Transfers to: UC, CSU

This course is primarily a systems approach to the study of human body structure. The study of each body system includes structural specializations and functions from the microscopic to the system level emphasizing the interdependence of form and function. Additional topics include methods of anatomical study, human genetics, and embryonic development. The laboratory exercises will also include vertebrate dissections. This course is intended for

students preparing to enter careers in the health sciences.

4 Units

54 Lecture hours

54 Lab hours

BIOL 200 (C-ID BIOL 135S, BIOL 190) Principles of Biology 1 (Molecular and Cellular Biology)

Prerequisite: CHEM 120 and MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate assessment
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC (credit limit), CSU (*Students will receive credit from UC for only one of the following courses: BIOL 101 or BIOL 200)*

This course is first in a sequence of courses for undergraduate preparation for biology majors. This course will cover principles and applications of prokaryotic and eukaryotic cell structure and function, biological molecules, homeostasis, cell reproduction and its controls, molecular genetics, classical/Mendelian genetics, cell metabolism including photosynthesis and respiration, and cellular communication. Additional areas of focus include evolution and ecology. The laboratory portion of the course applies the processes of scientific inquiry and experimental design to the study of biological concepts focusing on observations, experimentation, record keeping, data collection and analysis, and presentation of outcomes. The course sequence also provides excellent preparation for those students intending to pursue post-graduate studies in the medical sciences.

5 Units

54 Lecture hours

108 Lab hours

BIOL 201 (C-ID BIOL 135S)**Principles of Biology 2 (Diversity and Ecology)**

Prerequisite: BIOL 200

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course continues the sequence of undergraduate preparation for biology majors. The course is a survey of the diversity of unicellular and multicellular life on earth, focusing on the relationships between structure and function, as well as evolutionary adaptations to their environments. Topics deal with classification, development, evolutionary relationships and ecological functions of living organisms inclusive of prokaryotes, fungi, protists, plants and animals. Laboratories will emphasize life forms, experimentation and dissections. Field trips will be used to

examine organisms in their natural settings.

5 Units

54 Lecture hours

108 Lab hours

BIOL 205**Molecular Biology and Biotechnology**

Prerequisite: BIOL 200; CHEM 130
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for Life Science majors and introduces them to the basic concepts of biochemistry, molecular biology and molecular genetics; including protein structure and function, DNA structure and replication, transcription, RNA processing, translation, and recombinant DNA technology. Students will also be introduced to the science of biotechnology by providing both the theory and hands-on experience with laboratory protocols that include the isolation, purification, and cloning of a gene; including the use of restriction enzymes, electrophoresis, library construction, blotting and hybridization and sequencing. Polymerase chain reaction (PCR) will be explained in detail, particularly how it has revolutionized research in molecular biology, medicine, forensics, systematics and evolutionary biology.

4 Units

54 Lecture hours

54 Lab hours

BIOL 206**Principles of Genetics**

Prerequisite: BIOL 200

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: UC, CSU

This course is designed for Life Science majors as a continuance of their general biology studies. This course will cover a variety of topics relevant to the study of genetics, ranging from classical to nontraditional Mendelian genetics, from bacterial and viral genetics to human genetics, and include studies on molecular techniques and their applications. Other topics will include chromosome analysis, population genetics and genomics.

3 Units

54 Lecture hours

BIOL 222**Microbiology**

Prerequisite: CHEM 110

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; BIOL 101

Transfers to: UC, CSU

The course encompasses the biology of microorganisms with an emphasis on the role of bacteria and viruses on human health and disease. Other topics include resistance and immunity to disease, basic biological principles, microbial genetics and physiology, the harmful and useful aspects of microorganisms in nature, medicine and industry. Laboratory exercises emphasize sterile culture techniques, the detection, isolation and identification of microorganisms. This course is intended for students preparing to enter careers in the health sciences.

5 Units

54 Lecture hours

108 Lab hours

BIOL 226 (C-ID BIOL 120B)

Human Physiology

Prerequisite: BIOL 125 and CHEM 110
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; BIOL 101
Transfers to: UC, CSU

Human Physiology provides a general introduction to the function and regulation of human body systems. Physiological integration of the systems to maintain homeostasis and the significance of biochemistry is emphasized throughout the course. Course content will include neural and hormonal homeostatic control mechanisms, and a study of the musculoskeletal, circulatory, respiratory, digestive, urinary, immune and endocrine systems. Laboratory exercises will allow students to gather physiological data and draw conclusions on how physiological mechanisms are regulated. This course is intended for students preparing to enter careers in the health sciences.

4 Units

54 Lecture hours

54 Lab hours

BIOL 299A

Directed Study in Biology

Prerequisite: BIOL 200
Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Biology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

BIOL 299B

Directed Study in Health Science Biology

Prerequisite: BIOL 222 or BIOL 226
Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Health Science Biology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

BIOL 299C

Directed Study in Environmental Technology

Prerequisite: BIOL 120
Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Environmental Technology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

the students with hands-on introductory experiences in biotechnology techniques.

4 Units

54 Lecture hours

54 Lab hours

BIOT 110

Introduction to Biotechnology Techniques and Applications

Prerequisite BIOT 100

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The course will introduce students to the biotechnological techniques and their applications. The significant laboratory component will enable students to become familiar with the techniques and concerns of the biotechnology laboratory and its business applications. Techniques studied will include macromolecule isolation, purification and identification, solution preparation and monitoring, as well as best practices for laboratory operation and documentation.

4 Units

36 Lecture hours

108 Lab hours

BUSINESS LAW

Division of Business

BUSL 110 (C-ID BUS 120)

Legal Environment of Business

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

*Transfers to: UC (*credit limit), CSU (*Students will receive credit from UC for only one of the following courses: BUSL 110 or BUSL 220)*

This course examines the legal regulatory, and international environment of business. Included are the topics of alternative dispute resolution, the forms of business organization, regulations affecting employment, and current environmental statutes. Case studies are used to discuss torts, crimes, contracts and sales, warranty and product liability, labor law, employment discrimination, and environmental law.

3 Units

54 Lecture hours

BIOTECHNOLOGY

Division of Mathematics, Sciences, and Engineering

BIOT 100

Introduction to Biotechnology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The course will introduce students to the study of the biological sciences with an emphasis on the role that biotechnology plays in basic research and product development. The laboratory component will provide

CARPENTRY

Division of Career & Technical Education

CARP 020H Welding

Prerequisite: Indentured Apprentice with the State of California

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

1 Unit

20 Lecture hours

20 Lab hours

CARP 020I Advanced Welding

Prerequisite: Indentured Apprentice with the State of California

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

1 Unit

20 Lecture hours

20 Lab hours

CARP 040A Orientation

Prerequisite: State Indentured Carpenter Union Apprentice

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are

interested in the Carpentry Industry by examining fundamental trade skills, employee-employer roles and responsibilities, and safe work practices needed for entry level performance in the construction industry. While emphasis will be placed on attaining standard industry safety credentials, the course is designed to provide students with practical experience using construction terminology, math operations and basic measuring techniques, tool identification and proper usage. Safety will cover OSHA training for jobsite hazard recognition, accident prevention, and safe tool and equipment operation. Upon successful completion, students will receive Occupational Safety and Health Administration (OSHA) 10 Hour Certification.

2 Units

30 Lecture hours

10 Lab hours

CARP 040B Safety and Health Certifications

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Carpentry Industry by covering safe and appropriate use of hazardous communication systems, fall protection, fork lifts, and emergency response procedures. Students will acquire the ability to assess danger, employ prevention measures, and take appropriate action in emergencies. This training will expose students to various health emergency scenarios and provide students with ample opportunities to practice CPR and first aid response.

Upon successful completion, students will be issued an American Red Cross First Aid/CPR Certification Card, and United Brotherhood of Carpenters (UBC) Fall Protection, Hazard Communication and Chemical Safety, and Forklift Qualification Cards.

2 Units

30 Lecture hours

10 Lab hours

CARP 040C Print Reading

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are

interested in the Carpentry Industry by providing basic skills needed for reading and interpreting construction prints. Material covered will focus on developing the student's ability to interpret two dimensional views in such a way to convey the shape and characteristics of construction elements, and to provide an overview of the scope of the project. Students will be able to recognize standard drawing methods, pictorial views, and how to read visual and verbal communication cues.

2 Units

30 Lecture hours

10 Lab hours

CARP 040D Transit Level/Laser

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing terminology, optical principles and operating procedures for the transit laser levels. The conventional methods for measuring angles, using degrees, minutes and seconds on veneer scales will be included in the transit portion of this class. Students will set up levels, determine benchmarks, take and record elevation readings.

2 Units

30 Lecture hours

10 Lab hours

CARP 040E Foundations and Flatwork

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Carpentry Industry by providing the required and supplemental instruction for the design and function of several types of foundations and concrete flatwork. The methods, techniques and procedures for formwork layout, elevation, and construction will be presented. Jobsite safety, print interpretation, material identification, and basic use of the builders' level will be included in the training.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 040F
Wall Forming

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the skills and procedures for forming reinforced concrete walls using single and double waler systems. Identification of the characteristics and applications of built-in-place, prefabricated and specialty forms will be covered. Practical exercises will prepare students for locating wall forming information on project plans, calculating layout dimensions, and for estimating material requirements. Basic wall panel forming and reinforcement methods, material preparation and hardware installation are included in this course.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040G
Stair and Ramp Forming

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing methods, procedures and practices used to form stair and ramp structures. Students will review project plans to determine stair and ramp configuration and overall dimensions. Stinger riser and stair thread calculations will be explained and practiced. State and federal building codes pertaining to stairs, ramps and handrail requirements will be covered in this class.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040H
Commercial Floor Framing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are

interested in the carpentry industry by providing procedures for floor joist construction and the various installation techniques used in the commercial industry. Students will interpret floor plans for job planning, identify floor joist system, and calculate material take offs. Integration of wall plating, joist layout and floor sheathing methods will be included. Instruction will incorporate measuring skills, use of math operations, specialty hardware applications and identification of appropriate building codes.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040I
Basic Roof Framing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing an introduction to basic gable roof framing, terminology, characteristics and construction methods. Students will interpret print views and drawing elevations for job planning, and to determine rafter systems and layout details. Basic rise, run, rafter angles and length calculations will be practiced. Framed wall construction will be incorporated to facilitate the gable roof assembly techniques and installation procedures that are the focus of this course.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040J
Advanced Print Reading

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Carpentry Industry by providing the required and supplemental instruction for carpentry apprentices in advanced print reading. In this course, students will analyze multi-view drawings to determine construction type, locate benchmark and building elements; review codes, references, and perform calculations for construction planning. A closer look at specifications (verbal communication), will

explain to students how they are formatted and used to clarify the specific project design outcomes. Tips for troubleshooting installation, code compliance, and managing project scope and quality of construction will prepare students for jobsite leadership.

2 Units
30 Lecture hours
10 Lab hours

CARP 040K
Rigging

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing lifting and practical rigging methods and procedures. This course provides a historical perspective while educating workers on the industry recognized standards, applicable regulations, specific hazards, and general safety concerns associated with construction rigging. Detailed descriptions of hoisting and rigging configurations, lifting hardware, crane types and operating issues will be presented. This training will identify standard signaling and communication methods, and stress the importance of load calculations, manufacturer load limits, inspection criteria, and safe operator/operating parameters applicable to the carpenter trade. Upon successful completion, students will receive UBC Rigging Qualification Card.

2 Units
30 Lecture hours
10 Lab hours

CARP 040L
Solar Installer Level I

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. This course will provide workers with an industry overview and outlook for photovoltaic (renewable) energy production. Key terms and concepts of photovoltaic system operations will include solar cell technology, PV array configuration, series and parallel circuits, testing equipment, inspection, balance of system components, mounting methods, and

applicable codes. Practical training will cover site analysis, system orientation based on site location, safety concerns, utilization of construction tools and skills for rooftop and ground mount system installations. Upon successful completion students will receive a UBC Solar Installer Level 1 Qualification Card.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040M

Water Treatment Facilities

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. This course provides instruction in the detailing, layout and construction of concrete formwork and waterstop used in water treatment facilities. The terms, components, materials, building techniques and procedures will be presented. The class project includes keyway, panel, waterstop, head wall and wing wall construction.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040N

Green Building and Weatherization

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are in the carpentry industry. This course begins with a detailed explanation of sustainable building science, recycling of materials, whole house audits, and discussion of construction components and systems that contribute to energy efficiency. The differences in structural design such as joints, framing, windows and door openings, floor and attics will be evaluated for issues related to air flow and stack effect in conditioned spaces. Instruction will include thermal principles, air exchange rates, controlling air leakage, and ratings for insulation, and fenestration, as well as air sealing methods. Best practices for renovation construction will be demonstrated during practical exercises focused on implementing energy audit recommendations

for insulation, air leak/duct sealing, window replacement, water conservation, hazard and moisture remediation, and appliance upgrades (CAZ). Techniques and devices used to maintain healthy air quality during construction will be employed for applicable activities.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040P

Basic Wall Framing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment.

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. This course presents the theory, methods, and procedures required to frame basic walls. Hands-on practice using proper tool techniques and appropriate materials will enhance fundamental skill development. Beginning with an introduction to print reading, students will perform basic wall layout, plating procedures, framing assembly and bracing, before aligning and completing selected wall construction project to industry standards.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040R

Tool/Equipment Applications

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing hand/power tool and equipment skill development for various construction applications. Students will identify the correct practices for handling and preparing materials. Training will include how to correctly select, use, and operate tools and aerial lifts to prevent accidents and injuries. Scaffold safety and the proper procedures to erect and dismantle welded frame scaffold will also be covered. Upon successful completion, students will be issued United Brotherhood of Carpenters (UBC) Aerial Lift and Scaffold

Erector-Welded Frame Qualification Card.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040S

Moldings and Trims

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment. This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. This course covers how moldings and trims are utilized to finish exterior and interior construction design features. Product styles, characteristics, applications, and installation methods are covered. The tools, techniques for cutting, coping and installing various molding and trim types are presented and practiced throughout the course.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040T

Storefront Installations

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment.

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the installation process from constructing storefront openings thru placement of glass components into the commercial store front metal framing. An emphasis will be placed on print interpretation, window and door schedules, symbols and material recognition. Key discussions will draw attention to the typical problems, causes and solutions frequently encountered during the glazing assembly and installation process. This training will utilize glazing tools and techniques, applicable building/fire codes, layout accuracy and address proper fit and alignment.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 040V

Basic Metal Framing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or

appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing an overview of residential metal framing theory and construction techniques. Students will interpret prints for job planning and to estimate materials. Students will layout and detail wall plates for locating all wall and truss components and openings. Instruction will include measuring techniques, mathematical principles, wall and roof assembly and installation techniques.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050A

Basic Commercial Framing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing an introduction to the basic rake wall framing theory and commercial construction techniques and materials. Floor plan interpretation will be used by students for job planning, design recognition, and to determine materials. Students will layout and detail wall plates for locating basic rake wall components and door openings typically found in commercial construction applications. Instruction will include measuring skills, mathematical principles, wall assembly and installation procedures and detail on how structural connections are made.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050B

Cabinet Installation

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing procedures for design layout, cabinet installation and attaching countertops. An emphasis will be placed on print interpretation, job planning, scribing techniques and proper installation sequence.

Students will use methods and specific procedures to install typical upper and lower cabinetry units and countertops.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050C

Doors and Door Hardware

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the installation process for several types of security and exit door hardware. Discussion of electrical and card reader systems will be included. An emphasis will be placed on print interpretation, codes, door schedules, symbols, and hardware recognition. Students will use the methods and procedures presented to install selected door and hardware systems.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050D

Basic Stairs

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing an introduction to stair framing theory, terminology and construction techniques. Students will interpret floor plans and drawing elevations for job planning and to layout and detail stair stringers. Methods for calculating the number of stairs, landing height, stair threads and riser dimensions will be presented and practiced. Instruction will include measuring skills, mathematical principles, stair and handrail fabrication, assembly and installation.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050E

Bridge Construction

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or

appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing bridge design and construction methods and procedures. Students will construct bridge and deck formwork using job-built forming methods. Descriptions for exterior and interior girders, edge forms, bulkheads and hinge forms will be presented. Both job-built and precast formwork methods will be discussed. Formwork project will include panel construction, assembly, and hardware installation tasks. Related safety, math and print reading will be covered in the training.

1.5 Units
20 Lecture hours
20 Lab hours

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050F

Tilt Up Construction

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing layout techniques and building procedures for commercial structures using the tilt up panel construction method. Various wall types, position and sequence for raising panels will be discussed. Students will be able to explain the importance of layout methods in squaring panel formwork. A focus will be placed on identifying specific types of openings and the location of finish floor and roof lines on prints.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050G

Beam and Deck Forming

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing an introduction to the use of various woods and patented forming systems for construction of concrete beams and decks. Students will identify formwork types and installation techniques including calculating materials and setting beam

and deck forms. Metal beam forms and capitals will be highlighted. Additionally, layout and builders level skills will be used in this class.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050H **Gang Forms/Columns**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing an introduction to formwork types, applications and construction methods for gang and column forms using built and manufactured forming systems. Discussions will cover heavy timber gang forms and use of taper ties, bracing, and bulkhead tables. The course project will include gang and column formwork construction, assembly, and hardware using selected manufactured products. Related safety, math and print reading will be covered in this course.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050I **Abutments**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing formwork construction skills for the abutment support structure used in most bridge and heavy highway projects. Students will identify abutment anatomy and will be instructed on footing layout, form detailing and construction techniques used in the industry. Terminology, components, form materials, building code requirements and sequence of construction will be presented. Students will work collectively to complete an abutment formwork project including keyway, panel, head wall and wing wall construction.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050J **Exterior Finish Details**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the terminology, design considerations and construction techniques for various types of exterior finish detail installations. Students will use plan views and drawing elevations for job planning activities, including calculating dimensions and materials, identifying wall covering types and other exterior construction details. Students will use the construction techniques presented to complete various exterior detail installations to print specifications.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050K **Advanced Stairs**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing basic stair construction before presenting advance skill needed to perform circular and "u" shaped stair framing tasks. Students will interpret floor plans and drawing elevations for job planning and to layout and construct advanced stair designs. Students will adapt stair calculations to determine the number of stairs, landing height, stair thread and riser dimensions. In addition to measuring skills, mathematical principles, stair and handrail fabrication and assembly, the installation techniques required for circular and "u" shaped stair configurations will be covered.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050L **Advanced Commercial Framing**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing advanced commercial wall framing theory and construction techniques with structural hardware and shear panel installation. Students will interpret floor plans for job planning and to layout and detail plates for complex wall configurations, rake walls and openings. Instruction will include measuring skills, use of mathematical principles, advanced rake wall construction design, plywood shear panel installation, and structural hardware attachment.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050M **Bridge Falsework**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing bridge falsework design and construction methods and procedures. The techniques for bent assemblies, base sub-assemblies, deck soffits and hardware installation will be presented. Falsework tasks will include rigging and alignment techniques. Related safety, math and print reading will be covered in the training.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 050N **Advanced Roof Framing**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the advanced skills used to frame hip roof types, terminology, roof characteristics and construction methods. Students will interpret print views and elevations for job planning to determine hip roof rafter systems and layout details. Students will perform rise, run, rafter angles and length calculations. Framed wall construction will be

incorporated to facilitate the hip roof assemble techniques and installation procedures.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050P

Panelized Roofing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the structural components and building techniques associated with heavy timber construction and panelized roof systems. The advantages and types of manufactured wood used, and their load carrying strength, span and spacing will be discussed. A distinction between standard post and beam, and heavy timber construction will be emphasized. Students will interpret floor plan, section views and drawing elevations for job planning, and to layout and construct a heavy timber post and beam supported panelized roof.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050R

Intermediate Commercial Framing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course enhances basic wall framing theory, and wall construction techniques are applied at increased skill levels. A review of basic wall framing and floor plans used for job planning, design recognition, and materials lists is included. Students will layout and detail wall plates for locating basic wall components and door openings. Instruction will include measuring skills, mathematical principles, wall assembly and installation procedures, and detail how structural connections are made.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050S

Intermediate Stairs

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or

appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course uses floor plans and print elevations at an intermediate level to enhance development of basic stair construction skills. Students will interpret prints to complete job planning, project layout, and material cut list for "L" shaped stair designs. Stair calculations will be used to determine the number of stairs, landing height, stair thread and riser dimensions for the assigned project.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050T

Drywall Applications

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course will focus on the needed commercial and residential skills to properly handle and install drywall used in specialized applications including fire resistance, sound control, and for life safety. Layout, cutting, attachment procedures and productivity techniques will be discussed and practiced under jobsite conditions. Wall framing and drywall finishing methods will be incorporated into the hands-on activity.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050U

Interior Evaluations

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course covers the techniques and skills used in construction of interior spaces. Print elevation views and details will be utilized for job planning, design recognition, and to determine materials. Students will layout and detail interior walls, surfaces for arches, soffits, and trim installation. Instruction will include a review of transit and builder levels, measuring skills, and cutting techniques for inside/outside corners and radius cuts.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 050V

Welding Fabrication

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed as an introduction to layout, and basic welding and fabrication. The students will be introduced to the basic skills of measuring, equipment set-up and cutting, shaping, grinding, welding, filing, heating and bending of metal parts. Training will include fundamental arc welding techniques to fabricate project components.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060A

Cabinet, Millwork and Assembly

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing details of cabinetry fabrication from design and function through the complete production process. An emphasis will be placed on print interpretation, job planning and proper construction sequence. Countertops and hardware styles and types will be discussed. Students will use the methods and procedures presented to build typical base casework to industry standards.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060B

Plastic Laminates

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by covering the materials, tools, and adhesive application techniques for fabricating plastic laminated countertops. This course covers installation of plastic laminates including function and design. Students will review prints to determine substrates, laminate material types and to calculate countertop dimensions. Installation methods and techniques for drop edge and back splash together with cleaning and repair will be emphasized. A countertop will be designed and installed to specifications. Cor-

rect use of tools and other equipment will be stressed.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060C

Doors and Door Frames

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the installation process from constructing rough openings to hanging and adjusting doors. An emphasis will be placed on print interpretation, door schedules, symbols and hardware recognition. Students will use the methods and procedures presented to install selected frames and doors.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060D

Stair Trim

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing how various trims are utilized to finish stair construction design features. Students will use the techniques presented to complete a stair, railing and wall project. Product styles, characteristics, applications, and installation methods are included in the discussions. The tools techniques for cutting materials, mitering corners, and installing selected trim types are presented and practiced throughout the training.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060E

Commercial Fixtures

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are

interested in the carpentry industry by providing print interpretation and fabrication techniques used in the preparation and installation of commercial store fixtures. An emphasis will be placed on pre-job planning, proper hand and power tool use and safety measures. Students will apply the procedures presented to complete valance and wall panel installations.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060F

Fitting Rooms/Partitions

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing style comparison, attachment methods and installation techniques for various fitting room and partition fixtures. Framing elements, mounting brackets, and panel products will be covered. The procedures presented will be applied during fitting room and partition application projects.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060G

Exit & Electrical Security Devices

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the classifications, types, models, codes, and uses for accident hazard exit ("panic") devices and fire exit devices. A range of security products and door hardware used in the industry such as crossbars, latches, flush bolts, and kick plates will be discussed. Proper selection, installation and adjustment techniques for selected devices will be covered.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060H

Solid and Stone Surfaces

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the mill and cabinet work industry by providing both basic and advanced assembly and installation techniques for solid surface, natural stone and manufactured materials. Various products, designs, materials, accessories, maintenance, repairs and safety considerations will be included. A discussion of typical applications for different surface types will aid in the identification of suitable materials. Students will use the procedures presented to fabricate countertops with backsplash and create a design inlay.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060I

Hand/Power Tool Usage

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing proper selection, safe use and maintenance of both hand and power tools. Students will distinguish conditions when uses of hand and power tools are an appropriate alternative to stationary saws and equipment. Discussions will enable students to identify key tool features, accessories and tasks that can be performed using a variety of methods and techniques. Practical exercises will focus on various saw types, hand planes and hand held drills.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060J

Power Tools and Stationary Equipment

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing instruction for both power tools and stationary equipment typically used in millwork production. Students will identify the

appropriate procedures and machining operation for various milling applications. Practical exercises will focus on shaping materials using various types of stationary saws, planes, sharpeners and power tools.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060K

Print Reading and Stock Billing

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing instruction on working drawings used in the designing and building of a project. Instruction will include an explanation of the methods and procedures used to identify components and materials needed to finish the project. Students will study floor plans, elevations and detail drawings to determine design, wood types, style and features of construction and assembly details.

2 Units

30 Lecture hours

10 Lab hours

CARP 060L

Material and Hardware Applications

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the characteristics and construction suitability of various types of wood, woodworking materials, and hardware typically used in the cabinet making industry. Instruction on cabinet making design and wood selection will be emphasized. Working with a variety of wood samples, students will develop the ability to recognize the natural qualities associated with a particular wood species. Practical exercises will include handling selected wood species and experience working with a variety of hardware.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060M

Production Casework and Assembly

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Mill and Cabinet Work industry by providing details of cabinetry fabrication from design and function through the complete production process. An emphasis will be placed on print interpretation, job planning and proper construction sequence. Countertops and hardware styles and types will be discussed. Students will use the methods and procedures presented to build typical base casework to industry standards.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060N

Laminates and Overlays

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Mill and Cabinet Work industry by covering the materials, tools, and adhesive application techniques for fabricating plastic laminated countertops. This course covers installation of plastic laminates including function and design. Students will review prints to determine substrates, laminate material types and to calculate countertop dimensions. Installation methods and techniques for drop edge and back splash together with cleaning and repair will be emphasized. A countertop will be designed and installed to specifications. Correct use of tools and other equipment will be stressed.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060P

Jigs, Fixtures and Accessories

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are

interested in the Mill and Cabinet Work industry by providing instruction for jigs, fixtures and other accessories typically used with power and stationary tools for the production of millwork. A wide range of accessories and their applications will be identified during training. Discussions will enable students to explain when and how add-on equipment makes work easier and improves productivity. Students will use the techniques presented to select and attach accessories and to fabricate custom jigs.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060R

Millwork and Specialty Applications

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the mill and cabinet work industry. This course covers how moldings and trims are utilized to finish wall and cabinets. Students will be introduced to product styles, characteristics, millwork and specialty applications and installation methods are included in this training. The tool techniques for milling profiles, measuring and cutting, coping and installing various molding, trim and specialty items are presented and practiced throughout this course.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 060S

Computerized Project Planning and Estimating

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the mill and cabinet maker industry by providing computerized project planning and estimating tasks. Training will begin with a brief review of basic computer operations. Students will use project prints and specifications to determine material types, sizes, quantities and to plan and estimate material and labor costs in Microsoft (MS) Windows, Word, and Excel worksheets.

2 Units

40 Lecture hours

CARP 060T**Computer Applications CAD-CAM**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the mill and cabinet maker industry by providing instruction for computerized software used to create production drawings and cabinetry designs. Training will include a brief review of basic computer operations, access to software, internet and email programs. Students will become familiar with the organization of computer aided design software (AutoCAD 2014) user interface, basic drawing commands and file saving tools. Discussion will include an overview of computer aided manufacturing (CAM) from design to production. Students will use CAD drawing tools to create a base cabinet design.

2 Units

40 Lecture hours

CARP 060V**Building Information Modeling Concepts**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the mill and cabinet maker industry by providing instruction of computerized software used in project management planning, workflow and troubleshooting. Training will include a brief review of basic computer operations, access to software, internet and email programs. Students will navigate building information modeling (BIM) project data to grasp basic concepts related to viewing three dimensional (3D) building models, project scheduling and construction problem solving features.

2 Units

40 Lecture hours

CARP 060W**Building Information Modeling Computer Applications**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or

MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the mill and cabinet maker industry by providing instruction of computerized software used to develop three dimensional models of construction projects. Training will provide an introduction to the design process using various drawing software. Students will practice importing and exporting design elements into building information modeling (BIM) organization structure for project management and work flow assessment. The course will include a review of basic computer skills.

2 Units

40 Lecture hours

CARP 070A**Basic Frame Scaffold**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the basic techniques and procedures to erect frame scaffolds. Construction practices and safety considerations will be a major focus of the class. Scaffold standards and regulations enforced industry-wide are presented and utilized in hands-on projects. Students will identify frame scaffold components and the importance of site and equipment inspections. Students will erect typical frame scaffold assemblies to industry standards.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070B**Basic System Scaffold**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the basic techniques and procedures to erect system scaffolds. Construction practices and safety considerations will be a major focus of the class. Scaffold standards and regulations enforced industry-wide are presented and utilized in hands-on projects. Students will identify system scaffold components

and the importance of site and equipment inspections. Students will erect typical system scaffold assemblies to industry standards.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070C**Basic Tube and Clamp Scaffold**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the basic techniques and procedures to erect tube and clamp scaffolds. Construction practices and safety considerations will be a major focus of the class. Scaffold standards and regulations enforced industrywide are presented and utilized in hands-on projects. Students will identify tube and clamp scaffold components, access, inspection and assembly and disassembly procedures. Students will install components for multi-bay/multi-tier scaffolds to industry standards.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070D**Basic Suspended Scaffold**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by providing the basic techniques and procedures used to install suspended scaffolds. The terminology and use of scaffold components in cable (wire rope) suspended configurations will be the focus of this training. Additional topics will include anchorage systems, structural supports, hoists and suspension devices. Students will form eyes in wire rope using proper clamping techniques. Safety hazards and increased fall protection measures will be taken as students follow design plans to construct cable suspended scaffold.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070E**Intermediate Frame Scaffold**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by introducing the skills required to construct elevated platforms that span a large area. The importance of verifying that the first bay is plumb, level and square will be stressed. The practices for attaching and aligning multi-bay scaffolds in both width and length directions will be explained. Students will access various methods of distributing platform loads. The students will employ proper procedures to elevate each row of bays to maintain a uniform and level platform. Students will use the techniques presented to erect multiple connected and non-connected scaffold bays to industry standards.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070F**Intermediate System Scaffold**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course will introduce the skills required to construct elevated platforms that span a large area. Students will use the techniques presented to erect multiple connected and non-connected scaffold bays.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070G**Advanced Frame Scaffold**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by instructing students how to adapt scaffold configurations to follow the contour of a building's architectural features and height limitations. Students will use the proper terminology to describe structural and design elements typically found in construction.

Students will utilize reach limitation guidelines to determine maximum platform height. Students will erect a frame scaffold to conform to angles, slopes, obstacles and obstructions of walls and /or ceilings.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070H**Advanced System Scaffold**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course will provide the student with the ability to adapt the scaffold configuration to follow the contour of a building's architectural features and height limitations. Students will erect a frame scaffold to conform to angles, slopes, obstacles and obstructions of a wall and/or ceiling.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070I**Advanced Suspended Scaffold**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course will cover the advanced techniques and procedures required when constructing suspended scaffolds supported by structural members. Students will identify the suitable structural components for this application type. The methods used to determine load bearing capability of structural elements will be presented. The hazards and precautionary techniques associated with safely building this type of suspended platform will be the focus of this training.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070J**Confined Space**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry by instructing students in safe access, entry and monitoring methods for

work confined spaces. Terminology, hazard recognition, air quality and use of various types of personal protective and respiratory equipment will be presented. Students will complete simulated work tasks and emergency rescue procedures utilizing a mock up. Upon successful completion of the course students will be issued a United Brotherhood of Carpenters Confined Space Qualification Card.

2 Units

30 Lecture hours

10 Lab hours

CARP 070K**Scaffold Reshoring**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course will cover the basic techniques and procedures associated with frame, system, and tube and clamp scaffold components used in industrial settings. The regulations, terminology and components used in these systems types will be discussed in depth. Construction practices and safety considerations will include plant operating processes, equipment, hazardous material awareness, and emergency response. Students will identify and erect equipment using basic configurations suitable for jobsites where industrial scaffolds are commonly used during maintenance cycles.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070L**Specialty Scaffold Applications**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course will include specialty scaffold applications focusing on ramps, chutes and mobile towers suitable for light and heavy duty use. Students will identify the characteristics of commercial and industrial scaffold construction. The selected projects for this class will introduce the techniques and procedures used for access/egress, debris handling, and maintenance scaffolds.

1.5 Units

20 Lecture hours

20 Lab hours

CARP 070N**Scaffold Erector Qualification**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed to be compliant with applicable regulations, and provide workers with industry recognized general scaffold building credentials. A fundamental approach and careful explanation of scaffold built applications will include safety and terminology; elevated platform intended use; span and loading criteria; access and egress; stability, structural connections and inspections. Detailed project drawing review will provide practical experience in locating dimensions, determining layout and scaffold material requirements. An emphasis on erection/dismantling sequence will foster the development of job planning, preparation skills and applied math. The importance of a safety program including, site specific conditions, communication, and fall protection will be addressed during scaffold construction exercises.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 070P**Industrial Scaffolding**

Prerequisite: State Indentured Scaffold Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course will cover the basic techniques and procedures associated with frame, system, and tube and clamp scaffold components used in industrial settings. Construction practices and safety considerations will be a major focus of the class including general plant operating conditions and hazards. Successful participants will be issued a United Brotherhood of Carpenters (UBC) Scaffold Qualification Card- Standard 40 Hour Training.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 080A**Basic Wood Flooring Installation**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course provides an introduc-

tion to wood flooring materials and installation techniques. Students will study the characteristics of various hard and soft wood species typically chosen for grade, durability, and color. The inspection of existing subfloors will be discussed, and procedures for installing new subfloors will be included. The proper preparation and installation sequence of wood strips and plank flooring will be the main focus of the training.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 080B**Borders**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course covers the fabrication and production skills used to create borders for wood flooring installations. Students will interpret floor plans to determine details for border designs and estimate materials. Instruction will include design considerations, geometric layout procedures, and techniques for maintaining border symmetry.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 080C**Parquet Flooring**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course covers the methods and techniques for installing parquet flooring. Students will study the characteristics of various parquet flooring patterns. Students will evaluate the suitability of hard and soft woods for use in parquet flooring patterns. The inspection, patching and leveling of existing subfloors will be discussed and practiced. The proper preparation and installation sequence of parquet wood flooring will be the main focus of the training.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 080D**Advanced Patterns**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or

MATH 020C or appropriate assessment
This course covers the fabrication and installation skills used in the production of custom wood flooring design. Students will study examples of artistic wood floor elements including geometric patterns, color variations, and inclusion of materials other wood. Students will create a design pattern for a custom wood floor medallion, and use the techniques and skills presented to complete the medallion project.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 080E**Diagonal and Herringbone Patterns**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course covers the fabrication and installation skills used in the production of diagonal and herringbone flooring patterns. Students will interpret floor plans to detail pattern assemblies and estimate materials. Instruction will include design considerations, geometric layout procedures, and techniques for maintaining pattern symmetry.

1.5 Units
20 Lecture hours
20 Lab hours

CARP 080F**Crew Lead Training**

Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course covers the supervisory and crew leadership skills required for professional development in the wood flooring industry. Typical work processes, communication methods, customer service considerations, motivational concepts and problem solving techniques, that when employed, produce efficient and effective management of wood floor installation. Various project scenarios will be used to conduct classroom exercises.

2 Units
40 Lecture hours

CARP 290**Work Experience in Carpenters Apprenticeship**

Prerequisite: State Indentured Carpenter Union Apprenticeship
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides students the opportunity to work in the Carpenters apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Carpenters Joint Apprenticeship and Training Committee (J.A.T.C.). Students complete work experience hours at approved training sites. Students may take up to 16 units total across all Work Experience course offerings. Only one Work Experience course may be taken per semester.

1 - 4 Units

3 Lecture hours

75 - 225 Other hours

CHEMISTRY

Division of Mathematics, Sciences, and Engineering

CHEM 110

Chemistry for Allied Health Majors

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; Concurrent enrollment in MATH 070 or MATH 070D or MATH 073

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: CHEM 110, CHEM 120)

This course provides an introduction to the fundamental concepts of general, organic, and biological chemistry, and is especially appropriate for students intending to pursue a career in nursing and other health-related professions, including kinesiology and psychology. Emphasis is placed on the relationship between chemistry and the health/medical sciences. Weekly laboratory activities require students to empirically verify concepts presented in lectures. No previous background in chemistry is required or expected of students enrolling in this course.

5 Units

72 Lecture hours

54 Lab hours

CHEM 120

Introduction to Chemistry

Prerequisite: MATH 070 or MATH 070D or MATH 073 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: CHEM 110, CHEM 120)

This one-semester course is designed for students intending to major in

science or engineering. The course primarily prepares students for Chemistry 130; additionally, it fulfills the general education requirement in the physical sciences. This course introduces the fundamental principles of general chemistry, with emphasis on chemical nomenclature and quantitative problems in chemistry. The lecture presents classical and modern chemistry including atomic theory, periodic properties, chemical bonding, chemical reactions, stoichiometry, acids and bases, gas laws and solutions. The laboratory introduces the techniques of experimental chemistry with examples from all areas of chemistry.

5 Units

72 Lecture hours

54 Lab hours

CHEM 130 (C-ID CHEM 110, CHEM 120S)

General Chemistry I

Prerequisite: CHEM 120

Advisory: ENGL 101; READ 043 or appropriate assessment; MATH 175 or appropriate assessment

Transfers to: UC, CSU

CHEM 130 is the first semester of a two semester sequence designed for students intending to major in science and engineering. The lecture course covers classical/modern chemistry, with applications, in stoichiometry and classical atomic theory of chemistry, periodic properties, gas laws, modern quantum theory of atomic and molecular structure and periodic properties, thermochemistry, liquids and solids, and solution chemistry. The laboratory introduces experimental chemistry with examples from all areas of chemistry.

5 Units

54 Lecture hours

108 Lab hours

CHEM 140 (C-ID CHEM 120S)

General Chemistry

Prerequisite: CHEM 130

Advisory: ENGL 101; READ 043 or appropriate assessment; MATH 180 or appropriate assessment

Transfers to: CSU

CHEM 140 is a continuation of CHEM 130. Theory and techniques of elementary physical chemistry are stressed. Emphasis is placed on the dynamics of chemical change using thermodynamics and reaction kinetics as the major tools. A thorough treatment of equilibrium is given, with many examples of acid/base, buffer, solubility, and complex ions. Entropy and free energy, electrochemistry, coordination compounds and a brief introduction to organic chemistry and nuclear chemistry are presented. Various analytical techniques used in modern chemistry are introduced. Descriptive chem-

istry of representative metallic and nonmetallic elements is included. The Laboratory introduces experimental chemistry with examples from areas of kinetics, equilibrium, acid/base and buffer preparation, differential titration, electrochemistry, and qualitative analysis. Modern instrumental methods are used in some exercises.

5 Units

54 Lecture hours

108 Lab hours

CHEM 230 (C-ID CHEM 150, CHEM 160S)

Organic Chemistry I

Prerequisite: CHEM 140

Transfers to: UC, CSU

This course, the first of a two-semester sequence, provides a rigorous introduction to the practical and theoretical aspects of organic chemistry. Several topics will be explored in depth, including molecular structure and hybridization, applications of acid/base theory to organic compounds, stereochemistry, alkanes, alkenes, alkynes, dienes, substitution and elimination reactions, and spectroscopic methods of analysis (e.g. IR, UV/VIS, NMR). Particular emphasis will be placed on thermodynamic and kinetic aspects of reactions and detailed examination of reaction mechanisms. Laboratory exercises are designed to provide students with a solid foundation in the essential techniques of organic chemistry, including the determination of melting points, thin-layer and column chromatography, extraction, distillation, and spectroscopic analysis of products. This course is appropriate for students majoring in chemistry, biological sciences, and chemical engineering, and satisfies the admissions requirements for medical, dental, veterinary, and other health-related graduate programs.

5 Units

54 Lecture hours

108 Lab hours

CHEM 231 (C-ID CHEM 160S)

Organic Chemistry II

Prerequisite: CHEM 230

Transfers to: UC, CSU

This course, the second of a two-semester sequence, provides a rigorous introduction to the practical and theoretical aspects of organic chemistry. The chemistry of aromatic and carbonyl-containing compounds will be emphasized throughout the course of the semester. Bioorganic compounds will be introduced. Particular emphasis will be placed on thermodynamic and kinetic aspects of reactions, the detailed examination of reaction mechanisms, and the design of multi-step syntheses. Laboratory exercises require students to use the techniques learned in the

previous semester to carry out more complex reactions and multi-step synthesis. Additionally, students will investigate the techniques of organic qualitative analysis. This course is appropriate for students majoring in chemistry, biological sciences, and chemical engineering, and satisfies the admissions requirements for medical, dental, veterinary, and other health-related graduate programs.

5 Units

54 Lecture hours

108 Lab hours

CHEM 299

Directed Study: Chemistry

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

CHICANO STUDIES

Division of Behavioral & Social Sciences

CHST 101

Introduction to Chicano Studies

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course that examines the cultural, economic,

educational and political issues as they impact the Chicana/o in the U.S. Topics include Chicana/o identity, ethnic/racial paradigms, gender, language, race, educational attainment, immigration, labor, and poverty. Students interested in this course may include individuals with familial or personal connections to the Chicano (Mexican-American) community and/or those intending to work in environments with high concentrations of this population.

3 Units

54 Lecture hours

CHST 146

The Mexican American in the History of the U.S.

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a survey of the history of the Mexican/Mexican-American people in the United States presented in the context of U.S. history and government. The course begins with a discussion of the Mexican American War and the Treaty of Guadalupe Hidalgo, and goes on to examine the Mexican American struggle for full integration into U.S. society. Key topics include repatriation, unionism, Mexican American GIs on the Pacific and European war front, postwar struggles for economic and social justice, radicalism, and concludes with an examination into the dramatic growth of the Mexican/Mexican-American population in the U.S. Students interested in this course may include individuals with familial or personal connections to the Chicano (Mexican-American) community and/or those intending to work in environments with high concentrations of this population.

3 Units

54 Lecture hours

CHST 148

La Chicana: The Contemporary Mexican-American Female (Same as SOC 148)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory course explores the racial/ethnic identity formation of Chicanas/Mexican origin women in the United States. Course themes include an examination into the genesis of the term "Chicana", the emergence of Chicana feminism, and the intersection of race, gender, class, and sexuality in relation to the formation and study of Chicana identities. This course is an interdisciplinary one, drawing on methodologies from racial/ethnic studies, women/gender studies, queer studies, history,

literature, sociology, and popular culture. This course is appropriate for students interested in furthering their understanding of the social construction of the Mexican American woman.

3 Units

54 Lecture hours

CHST 150

Chicano Politics (Same as POLS 150)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course examines U.S. history and political issues relevant to the Chicano/Latino community, provides an overview of Chicano/Latino demographics in the U.S. examines Chicano/Latino political activism and the rise of Chicano/Latino political leadership. Students interested in this course may include individuals with familial or personal connections to the Chicano (Mexican-American) community and/or those intending to work in environments with high concentrations of this population.

3 Units

54 Lecture hours

CHILD DEVELOPMENT

Division of Behavioral & Social Sciences

CD 095

Current Issues in Child Development

Advisory: CD 106; CD 110

A working knowledge of current issues in the field of Child Development, leadership and advocacy skills and professionalism will be the focus of this course. The course is meant for students who are interested in understanding the current issues and changes in the field of Child Development. This course meets State Of California Teacher Credentialing requirements for the Child Development Permit and Department of Social Services Classification Indicator DS3.

1 Unit

18 Lecture hours

CD 102 (C-ID ECE 220)

Nutrition, Health and Safety for Children

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students interested in working in group care and educational programs that enroll children from infancy to early adolescence. The course focuses on

preventive health and safety practices in group care environments for both children and adults and integration of these practices into everyday program planning and development. Introduction will also be provided regarding the laws, regulations, standards, policies and procedures and child development curriculum related to child nutrition, health and safety. Topics will include prevention and recognition of infectious disease, immunization, dental and mental health, child nutrition, menu planning, sanitary food handling, prevention of injury, emergency preparedness and evacuation, providing services for children with special needs and child abuse prevention, identification and reporting responsibilities. The importance of program collaboration with families and health professionals will also be addressed. This course meets the Department of Social Services Classification Indicator DS7 and the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 103

Parenting

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students who are interested in gaining information to understand and work effectively with parents and to understand the parent child relationships in their own lives. The course provides a framework for topics pertinent to current parenting concepts. The following topics will be explored and examined: understanding the parenting process from infancy to adulthood, parenting in diverse culture, various life styles and family structures, alternatives to biological parenting and understanding high risk families.

3 Units

54 Lecture hours

CD 106 (C-ID CDEV 100)

Child Growth and Development

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: CD 106 or PSY 112)

This course provides an overview of human growth from conception to adolescence. The theories of development relevant to life through the teenage years are introduced and the social, emotional, cognitive and physical aspects of these early stages of life are addressed. This course is appropriate for students

preparing for a profession working with children and their families or those interested in furthering their understanding of child and adolescent development. This course is also designed to meet the Department of Social Service Classification DS1 and applies toward the State of California Title V requirement for the Child Development Permit.

3 Units

54 Lecture hours

CD 110 (C-ID ECE 120)

Principles and Practices of Early Childhood Education

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students desiring to work in educational programs for children from birth to age eight. The course is an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationship, constructive adult-child interaction and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots or early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity. This course meets the Department of Social Services Classification Indicator DS3 and the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 111 (C-ID ECE 130)

Early Childhood Education Curriculum

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This introductory course presents current concepts in childhood curriculum development and implementation. The student will design curriculum based on observation and assessment of young children to support play and learning using developmental, inclusive and anti-bias principles in collaboration with families to support all children; demonstrate knowledge of the teachers' role in evaluating best practices and apply understanding of children's learning and development. This course is meant for students who plan to create and implement children's educational programs. This course is also designed to meet the State of California Title 22 Department of Social Service Classification Indicator DS3 and applies toward the State of

California Title V requirements for the Child Development Permit.

3 Units

54 Lecture hours

CD 114 (C-ID ECE 200)

Observation and Assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students working towards a Child Development permit. The course focuses on appropriate use of assessment and observation strategies to document development, growth, play and learning in order to join with families and professionals in promoting children's success and maintaining quality programs. Recording strategies, rating systems, portfolios, and multiple assessment methods are explored. Advantages and disadvantages of observation techniques, observer bias and cultural considerations are discussed. This course meets the Department of Social Services Classification Indicator DS 3 and applies toward the State of California Title V requirement for the Child Development Permit.

3 Units

54 Lecture hours

CD 115

Creative Art Experiences for Children

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides a comprehensive study of creativity and its impact on child development. A developmental perspective will be utilized as students explore creative art and its impact on the whole child, the artistic development process, aesthetics, the elements of art, specific art program approaches, artistic styles, facilitating and supporting creative art experiences for children, art assessment techniques and specific art experiences. This course is appropriate for students interested in working with children in group care and educational environments. Applies towards the State of California Title 22 Department of Social Services Classification Indicator DS 3 and State of California Teacher Credentialing requirements for the Child Development Permit.

3 Units

54 Lecture hours

CD 118

Development of Science and Math Experiences

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides a framework from which to explore the theories, philosophies, principles, and implementation of science and math experiences for children from birth to early adolescence. Emphasis is placed upon theoretical and developmental foundations with practical application in the form of developmentally appropriate activities for use in the school and the child care center. This course is targeted for students preparing for a career in teaching children. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 119

Music and Movement for Children

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course offers a framework for providing developmentally appropriate music and movement principles and experiences for children birth to early adolescence. The developmental characteristics of movement and music abilities will be outlined along with the basics of movement and music education. Students will participate in music and movement related activities. This course is designed for students interested in working with children in group care and educational programs. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 120

Experiences in Language Arts

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students who are interested in promoting and facilitating the language development of children. The course is a study of philosophies, principles and implementation of language arts experiences for children from birth to early adolescence. The theoretical basis of language development and systems of teaching literacy will be addressed. Literature, dramatics, flannel board stories, puppetry, and storytelling are incorporated into the course as strategies for language acquisition as well as literacy activities. The course meets the Department of Social Services Classification Indicator DS3 and

applies towards the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 208 (C-ID CDEV 110)

Child, Family and Community

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students desiring to work with children in a group setting, as well as for parents and others who wish to further their understanding of how the socio-cultural environment affects the developing child. The course examines the historical and contemporary inter-relationship of family, school and community on child development. The process of socialization and identity formation will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families. This course meets the Department of Social Services Classification Indicator DS2 and the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 211

Infant and Toddler Development)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is a study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and emotional growth and development. The focus of this course applies theoretical frameworks to interpret behavior and interactions between heredity and environment. It also emphasizes the role of family and relationships in development. This course meets the Department of Social Services Classification Indicator DS4 and applies towards the State of California Department of Education Title V Child Development Permits.

3 Units

54 Lecture hours

CD 213

Care and Education for Infants and Toddlers

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course applies current theory and research to the care and education of infants and toddlers in group settings. It examines essential policies, principles and practices that lead to quality care and developmentally

appropriate curriculum for children birth to 36 months. The course meets the Department of Social Services Classification Indicator DS4 and applies towards the State of California Department of Education Title V Child Development Permits.

3 Units

54 Lecture hours

CD 224 (C-ID ECE 230)

Diversity Issues During Early Childhood, School Age and Adolescence

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course addresses the similarities, variety and multiplicity found within programs and educational settings for Young Children, School Age Children and Adolescents. Topics covered include: family values, culture, race, gender, social class, sexual preference, language and abilities. Focus will also be placed on developmental appropriateness in addressing diversity, parental perspectives and the effects of diversity on the domains of development. This course is designed for students wishing to work in children's programs and educational settings. This course meets the Department of Social Services Classification Indicator DS 3 and applies towards the State of California Department of Education Title V Child Development Permits.

3 Units

54 Lecture hours

CD 226

Introduction to Children with Special Needs

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course introduces the variations in development of children with special needs ages birth through eight and the resulting impact on families. It includes an overview of historical and societal influences, laws relating to children with special needs, and the identification and referral process. This course will prepare students who wish to work in children's programs or educational environments to facilitate the learning and development of children with special needs. Applies toward the State of California Teacher Credentialing requirements for the Child Development Permit.

3 Units

54 Lecture hours

CD 228 (C-ID ECE 210)

Early Childhood Education Practicum

Prerequisite: CD 106, CD 110, CD 111, CD 114 and CD 208 ; Verification of immunizations against influenza, pertussis, and measles and freedom from

tuberculosis are necessary to fulfill the lab requirement of this course.

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

In this capstone course, the student will practice and demonstrate developmentally appropriate early childhood program planning and teaching competencies under the supervision of Child Development faculty and other qualified early education professionals. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children. This course is designed for students looking for a supervised field/laboratory experience in an early childhood setting. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permits.

3.4 consecutive hours of weekly supervised field experience at the Rio Hondo College Child Development Center are required. Schedule must be established prior to the start of the semester. Beginning times are typically 7:30am, 8:30am, 9:30 am or 1:45 pm. Verification of freedom from tuberculosis and immunizations against influenza, pertussis, and measles are required prior to the semester's start. For more information, contact CDCinfo@riohondo.edu.

3 Units

36 Lecture hours

54 Lab hours

CD 229

Literacy Development for Children

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is appropriate for students interested in facilitating and supporting literacy development in children enrolled in group care and educational environments. Focus is on effective skills and techniques utilized by teachers and caregivers to enhance the development of Emergent Literacy skills throughout childhood. Students will develop knowledge of the sequence of Literacy and Language Development,

Developmentally Appropriate Practices in classroom environments and a Balanced Literacy Approach. Effective assessment, curriculum and techniques to promote skill development will also be introduced. This course is appropriate for students who are interested in working with children in group care and education programs. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permit.

3 Units

54 Lecture hours

CD 232

Curriculum and Strategies for Children with Special Needs

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course covers curriculum and intervention strategies for working with children with special needs in partnership with their families. It focuses on the use of observation and assessment in meeting the individualized needs of children in inclusive and natural environments. Topics included are the role of the teacher as a professional working with families, collaboration with interdisciplinary teams, and cultural competence. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permits.

3 Units

54 Lecture hours

CHINESE

Division of Communications & Languages

CHIN 101

Chinese I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides the student with an introduction to the Chinese language and culture. The course stresses oral and written proficiency through fundamental use of Chinese pronunciation and the Pinyin Spelling System. Students will also receive an introduction to Chinese characters. Various facets of Chinese history, culture, and civilization will also be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized

oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory focuses on vocabulary, grammar, and cultural practices. This course is intended for those interested in learning to speak Chinese as well as for those seeking a degree in the Chinese language.

4.5 Units

72 Lecture hours

27 Lab hours

CHIN 102

Chinese II

Prerequisite: Completion of CHIN 101, or completion of 2 years high school Chinese with a grade of "C" or better

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: UC, CSU

This course is a continuation of the essentials of the Chinese Language. The course stresses oral and written proficiency through fundamental use of Chinese pronunciation and the Pinyin Spelling System. Students will continue to further their knowledge of Chinese characters. Various facets of Chinese history, culture and civilization will also be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory focuses on vocabulary, grammar and cultural practices. This course is intended for those interested in learning to speak Chinese as well as for those seeking a degree in the Chinese language.

4.5 Units

72 Lecture hours

27 Lab hours

CIVIL DESIGN

Division of Career & Technical Education

CIV 140

Civil Engineering Fundamentals

Advisory: ENGT 101 or two years of high school drafting; ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 053 or appropriate assessment

Transfers to: CSU

This course is for all students interested in the career fields of Civil Design Drafting and Civil Engineering. The course is a study of the various Civil Engineering sub-disciplines and the common tasks required of Civil Engineers and their support staff. Students will complete

basic level engineering calculations and use hand drafting techniques or Computer Aided Drafting (CADD) software to complete projects relating to subdivision development, road-way planning and layout, structural design and detailing, site grading, project scheduling, wastewater management, and similar engineering tasks.

3 Units

36 Lecture hours

54 Lab hours

CIV 142

Introduction to Surveying and GPS

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 102

Transfers to: CSU

This course is for all students interested in the career field of Civil Design Drafting, Surveying/Mapping, and Civil Engineering. Introduction to Surveying and GPS will cover the principles and practices of land surveying which will include the measuring of distance, direction, elevation and position, topographic mapping, and use and care of surveying equipment. The fundamentals of global positioning systems (GPS) and their applications in land surveying will also be introduced. This course will also be beneficial for those in the construction industry who need to acquire property data.

4 Units

54 Lecture hours

54 Lab hours

CIV 143

Applications to Surveying and GPS

Prerequisite: CIV 142

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is for all students with a basic understanding of surveying who are interested in pursuing a career in the field of Land Surveying. This course presents advanced applications that will cover the theory and practice of plane surveying, including principles of position, horizontal and vertical curves, construction staking, alignments, field procedures, U.S. Public Land Survey System, Boundary Surveying, use and care of surveying equipment.

4 Units

54 Lecture hours

54 Lab hours

CIV 210

Concrete Technology & Testing

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment; MATH 050, MATH 050D or MATH 053 or appropriate assessment; CIV 140 or industry experience

Transfers to: CSU

This course is an introduction into the use of concrete as a common construction material. The course is intended for individuals who intend to pursue careers in construction and students who wish to progress into Construction Management as a Civil Engineering sub-discipline. The material includes focus on the components of concrete, physical properties, mix design, quality control, and placing & testing of concrete. The course includes classroom lectures and assignments, as well as lab projects with direct experience in working with and testing concrete.

2 Units

18 Lecture hours

54 Lab hours

CIV 241

Civil Engineering Drafting and Design

Prerequisite: CIV 140; ENGT 150 or ENGT 170

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. The course is an intermediate level class in which the practices and the preparation of drawings, pertaining to the civil engineering field, will be expanded to include the development of maps and drawings used for site development, grading and drainage, and road alignment. Preparation of construction documents for buildings and other related constructs will be included as well. Other topics to be covered include project notes, specifications, and details for Civil Engineering drawings. The students will use both hand drafting and Computer Aided Drafting (CADD) to complete projects related the aforementioned covered topics.

3 Units

36 Lecture hours

54 Lab hours

CIV 245

Civil Engineering Design and Modeling

Prerequisite: CIV 140; ENGT 150 or ENGT 170

Advisory: READ 043 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment

Transfers to: CSU

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. Civil Design & Modeling is an advanced level class which includes design, analysis, and the preparation of drawings used in the Civil

Engineering field. The student will use Civil Engineering software, such as Bentley's In-Roads or AutoCAD's Civil 3D to complete projects relating to transportation and site development including grading, drainage, and road alignment plans and details. Specific areas of focus include the use of the software for modeling and editing of terrain, surfaces, profiles, and cross-sections as well as earth-work computations and site planning design.

3 Units

36 Lecture hours

54 Lab hours

CIV 290

Cooperative Work Experience/Internship for Civil Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is in civil engineering design / drafting related fields and have completed or enrolled in the appropriate coursework. Instructor approval is needed to remain in the class. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 hours

CIV 299

Directed Study in Civil Design Technology

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Civil Design Technology beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The

student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

COMPUTER INFORMATION TECHNOLOGY

Division of Business

CIT 051

Keyboarding

(Formerly CIT 100A)

Advisory: READ 043 or appropriate assessment

The course is designed to enable the student to master the alphanumeric keyboard on a microcomputer by touch and to gain a thorough knowledge of current keyboarding techniques. This course is recommended for all students to provide them with the skills necessary to use touch keyboarding to prepare reports and general course assignments.

1 Unit

9 Lecture hours

27 Lab hours

CIT 060

Windows Operating System

Advisory: CIT 051

This course is a comprehensive course of the Microsoft Windows operating system and its graphical user interface. The student will learn: Graphical User Interface/Mouse, My Computer, File Management with Explorer, Wordpad, Paint, and data sharing using the clipboard. The find program, object linking and embedding, printers and fonts will also be included. Networking capabilities of Windows will be used and disk maintenance tasks will be performed.

3 Units

45 Lecture hours

27 Lab hours

CIT 101

Introduction to Computer Information Technology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 051

Transfers to: UC, CSU

This course is an examination of information systems and their role in business. It will focus on information systems, database management

systems, networking, e-commerce, ethics and security, computer systems hardware and software components. It will apply these concepts and methods through hands-on projects developing computer-based solutions to business problems.

3 Units

54 Lecture hours

CIT 102

Introduction to Microsoft Office

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 051

Transfers to: CSU

This course is intended as an introduction for students wanting to learn the latest version of the integrated program suite of Microsoft Office Professional. The student will be provided with the basics of each of the programs in the suite - Word, Excel, Access, PowerPoint, and Outlook as well as their Internet integration. In addition, an introduction to fundamental computer concepts will be presented including hardware and software basics, file management, computer networks and communications.

3 Units

45 Lecture hours

27 Lab hours

CIT 103

Microsoft Word

Advisory: READ 043 or appropriate assessment; CIT 101

Transfers to: CSU

This is a thorough introduction to the word processing application Microsoft® Word®. This course will provide instruction in the use of the latest version of word processing software for business applications. Students will learn the basic editing and formatting functions of the program. Document maintenance, formatting enhancements, and the creation and formatting of tables will also be presented. Additional topics include macros and styles, specialized tables, protected forms and shared documents. This course is intended for students desiring to complete the requirements for the Computer Information Technology Microcomputer Specialists Degree or professionals wanting to master Microsoft Word.

3 Units

45 Lecture hours

27 Lab hours

CIT 107

Microsoft Excel

Advisory: READ 043 or appropriate assessment; CIT 101

Transfers to: CSU

This is a comprehensive spreadsheet application course which will provide instruction in the use of the latest version of spreadsheet software for busi-

ness applications. Students will learn to create and format a workbook, work with formulas and functions, create charts, tables and PivotTables. Students will also learn advanced functions, and develop Excel applications. This course is intended for students desiring to complete the requirements for the Computer Information Technology Microcomputer Specialists Degree or professionals wanting comprehensive knowledge of Microsoft® Excel®

3 Units

45 Lecture hours

27 Lab hours

CIT 109

Microsoft Access

Advisory: READ 043 or appropriate assessment; CIT 101

Transfers to: CSU

This is a thorough microcomputer database applications course, which will provide instruction in the use of the latest version of database software for business applications. Students will learn to create and modify tables, build table relationships, add and edit records, create forms for data entry, produce simple queries and reports, advanced query functions, custom forms design for data entry, custom report writing, and sharing and integrating data with Web pages. This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals wanting a thorough introduction to Microsoft® Access®.

3 Units

45 Lecture hours

27 Lab hours

CIT 111

Introduction to Programming

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; CIT 101

Transfers to: CSU

This course is designed to develop the problem-solving abilities of the student who intends to continue in the computer field. Various techniques used will include hierarchy diagrams, data flow diagrams, flow-charting, data diagrams, and pseudo code. This course will also include information on Microsoft Visual Studio.NET's integrated development environment (IDE).

3 Units

54 Lecture hours

CIT 125

Introduction to C++ Programming

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropri-

ate assessment; CIT 111

Transfers to: UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using Visual C++ programming language. This course will cover the fundamentals of software development using the most popular language: C++. The topics covered include: designing, writing the source code, compiling, linking, executing, debugging, data types, arithmetic/logical expressions, pointers, looping, branching, classes, objects and static and dynamic memory allocation.

4 Units

63 Lecture hours

27 Lab hours

CIT 126

Advanced C++ Programming

Prerequisite: CIT 125

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; CIT 111

Transfers to: UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using an object-oriented programming language. This course will review the fundamentals of software development and cover the advanced programming skills using the C++ language. Advanced topics include: classes and data abstraction, operator overloading, inheritance, virtual function and polymorphism, stream I/O and Exception Handling.

4 Units

63 Lecture hours

27 Lab hours

CIT 127

Programming Concepts and Methodology I with Python

Prerequisite: CIT 111

Transfers to: CSU

This course is an introduction to the discipline of computer science, with a focus on the design and implementation of algorithms to solve simple problems using Python. Topics include fundamental programming constructs, problem-solving strategies, debugging techniques, declaration models, and an overview of procedural and object-oriented programming languages. Students will learn to design, implement, test, and debug algorithms using pseudocode and Python.

3 Units

45 Lecture hours

27 Lab hours

CIT 128

Programming Concepts and Methodology II using Python

Prerequisite: CIT 127

Transfers to: CSU

This is a software engineering course focused on the application of software engineering techniques for the design and development of large programs. Topics include object oriented programming, data abstraction, data structures and their associated algorithms, and recursion. Students will learn to design, implement, test, and debug programs using Python.

3 Units

45 Lecture hours

27 Lab hours

CIT 130

Windows Configuration

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 180

Transfers to: CSU

This course is designed for students preparing to take the Windows client operating system certification exam. Students will learn to install, upgrade and migrate from previous to the current Windows client operating system images and configure virtual system images and configure virtual hard disks. Students will also learn to configure hardware & applications, network connectivity, access to resources, mobile computing, backup and recovery, and monitoring and maintaining systems that run Windows.

3 Units

45 Lecture hours

27 Lab hours

CIT 131

Windows Server Active Directory

Prerequisite: CIT 130

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students preparing to take the Windows Server Active Directory, Configuring certification exam. Students will learn to configure Domain Name System, Active Directory infrastructure, Active Directory Roles & Services, creating and maintaining Active Directory objects, maintaining the Active Directory environment, and configure Active Directory Certificate Services.

3 Units

36 Lecture hours

54 Lab hours

CIT 133

Windows Server Applications Infrastructure

Prerequisite: CIT 130

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment

Transfers to: CSU

This course is designed for students preparing to take the Windows Server Applications Infrastructure certification exam. Students will learn deploy servers, configure remote desktop services, configure web services infrastructure, and configure network application services.

3 Units

36 Lecture hours

54 Lab hours

CIT 135

Introduction to Java Programming

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; CIT 111

Transfers to: UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals wanting an introduction to Java Programming. This course will cover the fundamentals of software development using the most popular Open Source language – Java. Course topics include: program design, algorithms, writing and testing source code, arithmetic/logic expressions, control structures, objects and basic Java structures.

4 Units

63 Lecture hours

27 Lab hours

CIT 136

Advanced Java Programming

Prerequisite: CIT 135

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; CIT 111

Transfers to: UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using Java. This course covers the basics of the software development and the advanced programming skills using the Java language. Topics include Java data syntax, data structure, applets, graphics, animation, inheritance, abstract windows toolkit, exception handling, file input and output, and multi-threading.

4 Units

63 Lecture hours

27 Lab hours

CIT 152

Introduction to Web Page Design for Business

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or

appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; CIT 101

Transfers to: CSU

This course provides students with an understanding of the fundamentals of HTML (Hypertext Markup Language) programming to design Web pages. Students will create custom Web pages for personal Internet and business Intranet environments. Students will also learn to use cascading style sheets (CSS) and scripting languages.

3 Units

45 Lecture hours

27 Lab hours

CIT 155

Introduction to E-Commerce

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; CIT 101

Transfers to: CSU

This course offers a hands-on problem-solving approach for learning the basic to more advanced features of doing business on the Internet. You will learn to use E-commerce effectively, such as: gather corporate information, make a purchase online, develop an effective company Web site, or find global trading partners. You will learn how and why electronic commerce is an important part of our economy and our society.

3 Units

54 Lecture hours

CIT 160

Introduction to Operating Systems

Advisory: CIT 060

Transfers to: CSU

This course provides an overview of the operating systems that are currently used to create an e-business infrastructure. Operating systems discussed include Windows, Unix, Linux, Novell and Mac and their use in the industry. An in-depth study of Windows 2000 Server is also presented. Topics discussed are how to setup, install, and administer Windows 2000 Servers. This course is designed for students interested in learning operating systems and the use of operating systems in running corporate information systems.

3 Units

36 Lecture hours

54 Lab hours

CIT 170

Server +

Prerequisite: CIT 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course will provide a student with the knowledge and skills

required to build, maintain, troubleshoot and support server hardware and software technologies. The student will be able to identify environmental issues; understand and comply with disaster recovery and physical/software security procedures; become familiar with industry terminology and concepts; understand server roles/specializations and interaction within the overall computing environment. This course also prepares students for the current version of CompTIA's Server+ certification exam.

3 Units

45 Lecture hours

27 Lab hours

CIT 171

Network +

Prerequisite: CIT 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Preparation for the CompTIA Network+ certification exam.

3 Units

45 Lecture hours

27 Lab hours

CIT 180 (C-ID ITIS 110)

PC Maintenance-A+ Certification

Prerequisite: CIT 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course will prepare students with the necessary competencies of an entry-level IT professional with hands-on experience and theory in computer technology, networking and security. The student will also learn communication skills and professionalism now required of all entry-level IT professionals. This course is intended for IT students wishing to prepare for the CompTIA A+ Essentials and CompTIA A+ Practical Application examinations, the two exams required to achieve CompTIA A+ certified status.

4 Units

54 Lecture hours

54 Lab hours

CIT 190

Introduction to Information Security

Prerequisite: CIT 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course provides an introduction to the various technical and administrative aspects of information security. The student will gain an understanding of the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. This course is intended for IT students and professionals who want to develop a foundation in information security systems.

3 Units

54 Lecture hours

CIT 192

Network Security

Prerequisite: CIT 101; CIT 210

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 180

Transfers to: CSU

This course is an introduction to the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. It addresses hardware, software, processes, communications, applications, and policies and procedures with respect to organizational cybersecurity and risk management. This course provides preparation for the CompTIA Security+ certification exams.

3 Units

45 Lecture hours

27 Lab hours

CIT 200

Systems Analysis and Design

Prerequisite: CIT 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The course presents a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specifying the requirements for the information systems solution in particular, in-house development, development from third-party providers, or purchased commercial-off-the-shelf packages.

3 Units

54 Lecture hours

CIT 210 (C-ID ITIS 150)**Cisco Networking I**

Prerequisite: CIT 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 180

Transfers to: CSU

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. This course is also the first of two courses designed to prepare students for the ICND 1 examination to achieve CCENT (Cisco® Certified Entry Networking Technician) Certification and helps in preparation for the CompTIA Network+ certification exam.

3 Units

45 Lecture hours

27 Lab hours

CIT 211**Cisco Networking II**

Prerequisite: CIT 210

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 180

Transfers to: CSU

This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPV1, RIPV2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. This course is the second of two courses designed to prepare students for the ICND 2 examination to achieve CCENT (Cisco® Certified Entry Networking Technician) certification.

3 Units

45 Lecture hours

27 Lab hours

CIT 212**Cisco Networking III**

Prerequisite: CIT 211

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 101; CIT 180

Transfers to: CSU

This course is the first of two courses

designed to prepare students for the ICND-2 examination to achieve CCNA (Cisco® Certified Network Administrator) certification. Students will learn the architecture, components and operations of routers and switches in a large and complex network. Students will also learn to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks along with developing skills needed to implement DHCP and DNS operations in a network.

3 Units

45 Lecture hours

27 Lab hours

CIT 213**Cisco Networking IV**

Prerequisite: CIT 212

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 101; CIT 180

Transfers to: CSU

This course is the second of two courses designed to prepare students for the ICND-2 examination to achieve CCNA (Cisco® Certified Network Administrator) certification. Students will learn about WAN technologies and network services for complex networks. Students will learn to troubleshoot network devices and issues with data link protocols, and implement IPsec and virtual private networks.

3 Units

45 Lecture hours

27 Lab hours

CIT 221**Ethical Hacking**

Prerequisite: CIT 171 or CIT 210 and CIT 192

Transfers to: CSU

This course introduces the network security specialist to the various methodologies for attacking a network. Students will be introduced to the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network within the context of properly securing a network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools and appropriate defenses and countermeasures. Students will receive course content information through a variety of methods: lecture and demonstration of hacking tools will be used in addition to a virtual environment. Students will experience a hands-on practical approach to penetration testing measures and ethical hacking.

3 Units

45 Lecture hours

27 Lab hours

CIT 290**Cooperative Work Experience/Internship for Computer Technology Related Fields**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Business Management and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 hours

COOPERATIVE WORK EXPERIENCE- GENERAL

Division of Career & Technical Education

CWEG 290**Cooperative Work Experience Education - General**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in an actual work environment under the supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a professional environment and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment.

Student Paid Internship:

1 unit/75 hours;

2 units/150 hours;

3 units/225 hours

1 to 3 Units

3 Lecture hours

75 to 225 Other hours

CORRECTIONS

Division of Public Safety

CORR 101 (C-ID AJ 200)

Introduction to Corrections

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an overview of the history and trends of adult and juvenile corrections. It will focus on probation, parole, legal issues, specific laws and the general operation of correctional institutions. The relationship between corrections and other components of the justice system will also be examined. This course has been identified by the Correctional Peace Officer Standards and Training Board of the Peace Officers Association to fulfill educational requirements of the CPOST Certificate for newly hired officers after July 1, 1995 by CDC and CYA.

3 Units

54 Lecture hours

CORR 104

Control and Supervision in Corrections

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CORR 101
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an overview of supervision of inmates in the local, state and federal correctional institutions. The issues of control in a continuum form of institutional daily living through crisis situations will be introduced and discussed. The course will emphasize the role played by the offender and the correctional worker. Topics include inmate subculture, violence and effects of crowding on inmates and staff, and coping techniques for correctional officers in a hostile prison environment. The causes and effects of abusive tactics will also be discussed. This course has been identified by the Correctional Peace Officer Standards and Training Board of the California Department of Corrections, California Youth Authority, and California Correctional Peace Officers Association to fulfill educational requirements of the CPOST Certificate for newly hired officers after July 1, 1995 by CDC and CYA.

3 Units

54 Lecture hours

CORR 106

Legal Aspects of Corrections

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CORR 101
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an awareness of the historical framework, concepts, and precedents that guide correctional practice. Course material will broaden the individual's perspective of the corrections environment, civil rights of prisoners, and responsibilities and liabilities of corrections officials. This course has been identified by the Correctional Peace Officer Standards and Training Board of the California Department of Corrections, California Youth Authority, and California Correctional Peace Officers Association to fulfill educational requirements of the CPOST Certificate for newly hired officers after July 1, 1995 by CDC and CYA.

3 Units

54 Lecture hours

CORR 134

Introduction to Interviewing and Counseling

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CORR 101
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an overview of the techniques available to entry level practitioners in counseling and interviewing. While it is an introduction to approaches of behavior modification through interviewing and counseling, some of the advanced methods utilized by professional counselors such as game concepts, transactional analysis, sensitivity and confrontation methods will also be examined. The development of positive relationships between the client and support personnel will be stressed.

3 Units

54 Lecture hours

CORR 208

Leadership in Corrections

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an overview of the skills necessary to be an effective leader in a correctional setting. Topics addressed include the unique challenges faced by executives managing in prison settings, approaches to ensuring the creation and maintenance

of a safe prison environment, and techniques for personnel development.

3 Units

54 Lecture hours

CORR 209

Case Load Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an introduction to effective caseload management in a correctional setting. Topics include the laws, policies, and bargaining units that govern caseload management. Specialized supervision issues such as offenders with psychological problems and second strike offenders will also be addressed.

3 Units

54 Lecture hours

CORR 210

Supervision in Public Safety

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an overview of the characteristics needed to be an effective supervisor in a correctional setting. Topics include basic supervisory responsibilities, the importance of effective interpersonal communications, and managing personnel complaints in a prison setting.

3 Units

54 Lecture hours

CORR 235

Conflict Resolution

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide Corrections or other interested students with an in-depth understanding of conflict situations in which abnormal or non-normal behavior is manifested. Topics covered include concepts of anxiety, fear, frustration, hostility, aggression, motivation and manipulation roles. Racial and cultural segregation, crowd and mob interaction, alcohol, drugs, sexual problems, character, neurotic and psychotic disorders, youthful offenders, stress of incarceration and brain disorders will also be discussed.

3 Units

54 Lecture hours

CORR 264**Inmate Discipline in Corrections**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course is designed to provide Corrections or other interested students with the correctional process of inmate discipline. Topics covered include due process, disciplinary process, disciplinary reports, findings and disposition. The curriculum covered is recommended by the California Commission on Peace Officer Standards and Training.

3 Units**54 Lecture hours****CORR 265****Supervision of Sex Offenders**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course is designed to provide California Peace Officers or other interested students with instruction into the correctional process of supervision of inmates who have been convicted of sex offenses. Topics include human sexuality and dysfunctions, theories of sexual offense, offender typologies and supervision techniques. The curriculum follows that recommended by the California Commission on Peace Officer Standards and Training and the California Corrections Commission on Peace Officer Standards and Training.

3 Units**54 Lecture hours****CORR 290****Public Safety Communications**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; AJ 101
Transfers to: CSU

This course is designed to provide California Peace Officers or other interested students with an in-depth understanding of public safety communication in the correctional field. Topics include techniques of effectively communicating facts of information and ideas in a clear and logical manner for public safety reports. Students will gain practical experience in interviewing, note taking, report writing, and testifying.

3 Units**54 Lecture hours**

COUNSELING**Division of Counseling & Student Development****COUN 100****Introduction to College Survival (Formerly COUNS 039)**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: CSU

This course is intended for special populations and programs such as student athletes and the Summer Scholars Transfer Institute. This course will help students develop knowledge and skills to successfully move through the community college system and transition and acculturate into a four-year institution. Students will learn and apply information in the following areas: higher education terminology, community college transfer requirements, as well as skills necessary for completing a bachelor's degree or higher. Students will also learn about academic, social and cultural integration for retention in higher education through knowledge of college requirements, policies and procedures, campus support services, and self-management.

1.5 Units**27 Lecture hours****COUN 101 (same as EDEV 101)****College and Life Success**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC (credit limit), CSU*

(*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learning, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

3 Units**54 Lecture hours****COUN 101A****College and Life Success**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC (credit limit), CSU*

(*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learning, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

1.5 Units**27 Lecture hours****COUN 101B****College and Life Success**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC (credit limit), CSU*

(*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learning, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

1.5 Units**27 Lecture hours****COUN 102****Introduction to the Transfer Process**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to develop and enhance decision-making strategies for students interested in transferring. Students will develop critical thinking skills by identifying, comparing, and analyzing the differences in university entrance and major requirements as related to their educational and career goals. Students will examine the requirements of the universities and complete a comprehensive educational plan. On-site research/field study at universities required.

2 Units**36 Lecture hours**

COUN 103
Introduction to Student Leadership Development

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course will focus on building a student's leadership potential. It will examine foundational leadership theories and application in student government and organizations. Students will develop their own personal leadership philosophy that includes an understanding of self, others, and community. Some topics to be covered include: leadership theories, characteristics and competencies, ethics, diversity in leadership, decision-making, program development, parliamentary procedure, and team building.

3 Units

54 Lecture hours

COUN 104
Stress and Anxiety Management for Emotional Well-Being

Advisory: ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

This course is designed to increase a student's awareness of the effects of stress and anxiety on academic performance and daily life. Topics include the impact of stress on behavioral, cognitive, physical, and social-emotional well-being. Emphasis will be placed on understanding effective and ineffective responses to stress and anxiety, as well as on planning a personal stress and anxiety management program. Students will explore and develop a variety of practical coping skills and management techniques.

3 Units

54 Lecture hours

COUN 105
Orientation and Education Planning

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

This course is designed for first-time college students as well as students who have not yet developed an individual education plan. Students will be oriented to Rio Hondo College policies and procedures, learn about certificate/degree options within the higher education system, and the graduation/transfer requirements within these systems. The course will culminate in the development of an individual education plan based on each student's specific academic goal.

0.5 Units

9 Lecture hours

COUN 151
Career Exploration and Life Planning

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)*

This course will examine student, career and self-development theories to empower students to make effective decisions throughout their lifespan by engaging in the process of career and life planning from a psychological, sociological and physiological perspective. Students will compare and contrast human development and career theories, decision-making, factors that contribute to college success, life skills, adult workplace competencies, values, interest, abilities, and personality, labor market trends in a global economy, and successful job search and workplace behaviors.

3 Units

54 Lecture hours

COUN 290
Cooperative Work Experience/Internship for Student Services Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in the Student Services field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Student Services and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Student Services and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 hours

COUN 299
Directed Study in Counseling

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Counseling beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor.

The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

DANCE

Division of Kinesiology, Dance, and Athletics

Dance Activity Courses

Dance activity courses may be used in place of Kinesiology (formerly P.E.) activity courses to fulfill degree requirements.

DANC 114
Conditioning and Alignment for the Dancer

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed to provide the physical training and preparation for students interested in Dance, Yoga, and/or Pilates and is suitable for individuals seeking to move with greater efficiency and less pain in everyday activities. Students will learn how to move the body in a safe and effective manner and develop strength, flexibility, proper alignment, agility, balance and coordination. Course work is designed for those wishing to work at a more deliberate pace and in a non-competitive atmosphere, or who are recovering from prior injury.

1 Unit

54 Lab hours

DANC 150
Introduction to World Dance

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

Introduction to World Dance offers dance and non-dance students an opportunity to study cultural diversity through the activity of dance. Students learning how to analyze and perform basic movement patterns as they compare and contrast the social conventions, religious traditions, and historic contexts represented in a collection of multi-cultural dance forms.

1 Unit

54 Lab hours

DANC 151
Modern Dance I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

Modern I is a studio course offering the beginning modern dancer an introduction to the fundamental principles of modern dance. This course emphasizes an awareness of breath and gravity, skeletal alignment and core strength and investigates kinesthetic and spatial awareness. Modern dance technique, improvisational exercises, and choreographic phrases provide physical, mental and creative exploration for beginner students, those preparing for transfer, and those seeking careers in dance. This course may be repeated three times for credit.

1 Unit
54 Lab hours

DANC 152
Dance Rehearsal and Performance

Corequisite: DANC 180
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; DANC 151; DANC 159; DANC 251
Transfers to: UC, CSU

This introductory course provides experience and laboratory exploration in all aspects of dance rehearsal performance for beginner level students. Students have the opportunity to perform in an evening-length dance concert, work with faculty choreographers and guest artists, and participate as a member of a touring dance ensemble. Students contribute as dancers and rehearsal assistants under the supervision and guidance of faculty choreographers. Productions will be presented for public performance on and off campus.

3 Units
18 Lecture hours
108 Lab hours

DANC 153
Ballet I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is an introductory course for those students who seek technical skill in classical ballet. The course will focus on body alignment, traditional steps and combinations, musicality, ballet terminology, and the development of strength and flexibility. Students will also gain knowledge of contemporary influences on ballet. This course may be repeated three times for credit.

1 Unit
54 Lab hours

DANC 154
Jazz Dance I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

Highly visible on stage and screen, Jazz Dance is an eclectic and versatile contemporary art form with deep roots in African American dance. Jazz Dance I is designed to introduce the beginning student to the fundamental polyrhythms, physical skills, terminology, and historical context that form the basis of Jazz technique. A variety of Jazz dance styles will be introduced, and may include tap, funk, hip-hop, Lindy Hop, and other African- American social dances that form the basis of this dance genre in the United States. Students may take any combination of four Jazz courses total.

1 Unit
54 Lab hours

DANC 157
Hip-Hop Dance

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

Students will learn various forms of beginning hip-hop dance, including hip-hop funk, emphasizing body isolations, syncopations, and rhythms. The class will explore the use of space, energy, rhythm, movement dynamics, and improvisation while emphasizing body control, alignment, balance, and use of weight changes. A basic history of hip-hop culture and music will be discussed. The course fulfills an elective for the AA in Dance and appeals to dancers seeking careers in dance, students looking to expand their dance skills, and those wanting a dance aerobic work-out.

1 Unit
54 Lab hours

DANC 159
Choreography I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; DANC 151
Transfers to: UC, CSU

Choreography I is an introduction to the art and craft of dance composition. Through lecture and activity, students will learn how to incorporate the elements of dance: body, space, time, and energy, in order to create meaningful dance works. Basic elements of choreography, including form, design, motivation, phrasing, gesture, rhythm, dynamics, musical accompaniment, and production basics, will be explored through improvisational exercises and experi-

mentation. Additionally, students will learn to analyze dance critically. The class will culminate in the presentation of student choreography.

3 Units
36 Lecture hours
54 Lab hours

DANC 162
Dance Production

Corequisite: DANC 180
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; DANC 151; DANC 159; DANC 251
Transfers to: UC, CSU

This course offers an introduction to the technical aspects of dance production and is designed for the beginner level dance student. Topics of exploration include basic staging, costume design, set design, make-up, lighting, sound production, and publicity. Productions will be presented for public performance either on and/or off campus.

3 Units
18 Lecture hours
108 Lab hours

DANC 167
Latin Dance for Fitness

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

Latin Dance for Fitness combines dance, Latin and Funk rhythms, and aerobic elements to provide a fun, upbeat, cardiovascular workout. Students will constantly move to various genres of Latin music, utilizing various tempos. Salsa, Cha-Cha, Tango, Mambo, Latin Jazz, and Hip-Hop rhythms will be incorporated. Students will build stamina, while increasing cardiovascular fitness. This course is designed to help students develop aerobic capacity, coordination, balance, rhythmic awareness, and flexibility. This class will also include exercises to build abdominal strength, lower body strength, and upper body strength. Classes may incorporate sections with small handheld weights, exercise bands, and/or other fitness props to further develop strength and endurance. Students will build a foundation for a personalized exercise and fitness program that can be continued after the course has ended.

1 Unit
54 Lab hours

DANC 168
Latin Social Dance

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU

Students will learn various types of beginning club and American-style

Latin dance forms that may include Salsa, Cha Cha, Samba, Rumba, Merengue, Bachata and Bolero. This course emphasizes the use of proper lead and follow techniques as a form of communication between partners, and develops proper alignment, balance, body awareness, and rhythmic coordination which are necessary parts of appropriate social dancing technique. A basic understanding of partner dancing etiquette will also be addressed. The course appeals to students interested in the social aspect of dance, ones seeking experience in partnering work, and dancers seeking careers in dance.

1 Unit
54 Lab hours

DANC 172

Dance Repertory

Corequisite: DANC 180
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; DANC 151; DANC 159; DANC 251

Transfers to: UC, CSU

This course provides dance students the opportunity to rehearse and perform choreographic works based on existing dance repertoire created by well-known and established choreographers, faculty, and/or guest artists. Students will learn how to analyze movement using basic elements of Laban Movement Analysis in preparation for stage. They will also experience different methods of reconstructing existing repertoire and gain knowledge about the historical significance of the repertoire explored. Productions will be presented for public performance either on and/or off campus.

3 Units
18 Lecture hours
108 Lab hours

DANC 179

Dance History

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces the forces and figures which have shaped dance through history. Students will study dance forms from ancient to modern times through readings, films, and class discussions with particular focus on Western concert dance. Comparisons of various dance techniques, theories, and personalities who have contributed to the art of dance will also be covered.

3 Units
54 Lecture hours

DANC 179H

Dance History Honors

Prerequisite: ENGL 101 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course introduces the forces and figures which have shaped dance through history. Students will study dance forms from ancient to modern times through readings, films, and class discussions with particular focus on Western concert dance. Comparisons of various dance techniques, theories, and personalities who have contributed to the art of dance will also be covered. This course is designed for students who want to gain an understanding of dance, for dance majors to satisfy a requirement for the AA in Dance, and is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

DANC 180

Performance

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; DANC 151; DANC 159; DANC 251

Transfers to: UC, CSU

This course provides dance students the opportunity to participate in dance productions. Productions will be presented for public performance either on and/or off campus. Students will learn how to adjust a performance for presentation on a stage, pre-performance and post-performance responsibilities will be outlined. In addition students will be exposed to basic stage direction and techniques for overcoming stage fright. This course may be repeated to a maximum of 4 units in different semesters.

1 Unit
54 Lab hours

DANC 182

Dance Ensemble

Corequisite: DANC 180

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; DANC 151; DANC 159; DANC 162; DANC 251

Transfers to: UC, CSU

This course provides an opportunity for dance students to develop and practice dance ensemble skills necessary to rehearse and produce a professional dance performance. Modes of collaboration, basic ensemble skills used in the field of dance, rehearsal techniques, and the process of rehearsing and producing collaboratively will be covered. Productions will be presented for public performance either on and/or off campus.

3 Units
18 Lecture hours
108 Lab hours

DANC 199

Dance Appreciation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This survey course is a multi-cultural exploration of one of the world's oldest and most universal art forms. The history of ballet, jazz, modern, hip-hop, and musical theater dance are investigated through lecture, video and demonstration. In addition, dance will be analyzed in terms of Body, Effort, Space, and Shape and examined for cultural, social and political influences. This course is designed for students who want to gain an understanding of dance and for dance majors who want to broaden their knowledge.

3 Units
54 Lecture hours

DANC 199H

Dance Appreciation Honors

Prerequisite: ENGL 101 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This survey course is a multi-cultural exploration of one of the world's oldest and most universal art forms. The history of ballet, jazz, modern, hip-hop, and musical theater dance are investigated through lecture, video and demonstration. In addition, dance will be analyzed in terms of Body, Effort, Space, and Shape and examined for cultural, social and political influences. This course is designed for students who want to gain an understanding of dance, for dance majors who want to broaden their knowledge, and is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

DANC 251

Modern Dance II

Prerequisite: DANC 151

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

Modern II is a studio course offering the intermediate modern dancer an opportunity to deepen and strengthen fundamental skills acquired in Modern I. While continuing to develop proper alignment and modern dance technique, the intermediate student will learn to perform combinations while shifting spatial orientation and integrating improvisation as required in auditions. Learning to create movement phrases, the Modern Dance II student will develop a sense of artistry and dynamic phrasing necessary for per-

forming. Further understanding and identifying the underlying movement principles of modern dance, students will hone their technical skills in preparation for transfer or careers in dance. This course may be repeated three times for credit.

1 Unit
54 Lab hours

DANC 253

Ballet II

Prerequisite: DANC 153

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

Ballet II is an intermediate level course designed for students who wish to further develop the technical and performance skills acquired in Ballet I. The class includes more advanced technique work at the barre, across the floor, and in center floor combinations. Complex adagio and allegro dance sequences will also be introduced. Students will have the opportunity to perform in an informal showing or concert setting. This course may be repeated three times for credit.

1 Unit
54 Lab hours

DANC 254

Jazz Dance II

Prerequisite: DANC 154

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

Jazz Dance II is an intermediate level course designed for students who wish to further develop the technical and performance skills acquired in Jazz Dance I. Additionally, the historical and cultural aspects of Jazz Dance will be emphasized through lectures, readings and observations of a professional dance concert. Students will also have the opportunity to perform in an informal showing or concert setting. Students may take any combination of four Jazz courses total.

1 Unit
54 Lab hours

ECONOMICS

Division of Behavioral & Social Sciences

ECON 101 (C-ID ECON 202)

Principles of Macroeconomics

Prerequisite: MATH 050 or MATH 050D or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course in which students learn to describe and analyze the performance and policies of national economic systems, with an emphasis on the US economy. It is intended for Economics or Business majors as well as to satisfy General Education requirements. Topics include production possibilities and tradeoffs; comparative economic systems; functions of government; national income and employment; business cycles; money and banking; monetary and fiscal policy; comparative advantage and trade policy; economic growth and stability; and income distribution and poverty.

3 Units
54 Lecture hours

ECON 101H (C-ID ECON 202)

Principles of Macroeconomics Honors

Prerequisite: ENGL 101; MATH 070 or MATH 070D or MATH 073 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course in which students learn to describe and analyze the performance and policies of national economic systems, with an emphasis on the US economy. It is intended for Economics or Business majors as well as to satisfy General Education requirements. Topics include production possibilities and tradeoffs; comparative economic systems; functions of government; national income and employment; business cycles; money and banking; monetary and fiscal policy; comparative advantage and trade policy; economic growth and stability; and income distribution and poverty.

3 Units
54 Lecture hours

ECON 102 (C-ID ECON 201)

Principles of Microeconomics

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course in economic analysis of markets, intended for Economics and Business majors as well as to satisfy General Education requirements. It may be taken prior to ECON 101. Students will learn how markets work to coordinate consumers and producers in an economy, various causes of the failure of free markets and policies used to correct or regulate market behavior.

3 Units
54 Lecture hours

ECON 102H (C-ID ECON 201)

Principles of Microeconomics Honors

Prerequisite: ENGL 101; MATH 070 or MATH 070D or MATH 073 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course in economic analysis of markets, intended for Economics and Business majors as well as to satisfy General Education requirements, and may be taken by any student who has completed ENGL 101 with a "C" or better. It may be taken prior to ECON 101. Students will learn how markets work to coordinate consumers and producers in an economy, various causes of the failure of free markets and policies used to correct or regulate market behavior. Students will do a research project on an actual economic policy or a theoretical view.

3 Units
54 Lecture hours

ECON 106

Economics of Contemporary Issues

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

The course is an introductory course designed for students interested in exploring how the tools of economics are used to analyze and debate critical issues facing society today. Economics will be applied to issues such as: health care, trade deficits, social security, crime, pollution, alternative energy, income inequality, global development, housing and homelessness, and immigration.

3 Units
54 Lecture hours

ECON 135 (same as POLS 135)

International Political Economy

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course designed for students interested in economics and political science, as well as anyone interested in the global interconnectedness of the world economy. The course focuses on the relations between the political and economic systems within the global economy. The course covers the impact of political decisions on world economies and international organizations. Further emphasis is placed on a comparison-contrast of various national economies. Geographic areas of concern include Africa, Europe, the Pacific Rim, the Middle East, Latin America, Russia, China, and the United States. The

course is cross-listed as Economics 135 and Political Science 135. Credit is given in either area, not both.

3 Units

54 Lecture hours

EDUCATION

Division of Behavioral & Social Sciences

ED 090

Tutorial Skills

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course provides preparation for successful peer tutoring at the community college level. Instruction will focus upon tutoring principles, techniques, and materials, study skills strategies, communication skills, and learning differences. This course is intended for tutors in the Learning Assistance Center and other peer tutoring programs at Rio Hondo College.

1 Unit

18 Lecture hours

ED 110 (C-ID EDUC 200)

Introduction to Teaching

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed to introduce students to the profession of teaching through lecture and observation of K-12 classrooms and public schools. The major aspects of the teaching profession will be examined, the diversity of the public school system will be discussed, and students will gain experience in all three levels of the K-12 system. This course is intended for students considering a career in teaching. 45 hours of structured fieldwork is required.

3 Units

54 Lecture hours

ED 120

Tutoring Reading in the Elementary School

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

This course provides preparation for a successful tutoring experience in reading at the elementary school level. Instruction will focus upon tutoring principles, stages of reading acquisition from pre-kindergarten through upper elementary school levels as well as materials, approaches, and activities that are appropriate for tutoring learners at these various stages of development. This course is designed for those stu-

dents who intend to pursue a career in teaching at the elementary school level.

1 Unit

18 Lecture hours

ED 130

Tutoring Reading in the Schools: Seminar and Field Work

Prerequisite: READ 022 or appropriate assessment

Prerequisite/Corequisite: ED 120

Advisory: ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

This course provides the student with supervised experience tutoring reading in an elementary-educational setting (grades K-6). Participants will apply their knowledge of the reading process and tutorial skills in tutoring sessions with children at an off campus site. A weekly class meeting provides the academic component to the tutoring experience, reinforcing and expanding the application of concepts gained in the prerequisite/corequisite course. This course partially fulfills the requirements for students participating in the AmeriCorps grant program.

2 Units

18 Lecture hours

225 Lab hours

EDUCATIONAL DEVELOPMENT

Division of Disabled Students Program & Services

EDEV 020

Literacy Skills I

This is a beginning course for students with learning differences who have limited reading skills. Students practice learning strategies and techniques needed to encode, decode, and successfully integrate phonics and sight words to become better readers. This is a non-degree credit course and is offered on a pass/no pass basis.

3 Units

54 Lecture hours

EDEV 021

Literacy Skills II

Prerequisite: Appropriate skill level demonstrated through the RHC Placement Process

Corequisite: Concurrent enrollment in EDEV 021L

This course is designed for students with learning disabilities who need to improve basic reading skills such as dictionary usage, vocabulary development, and reading comprehension. Students practice specific learning strategies needed to compensate for diverse learning styles or deficits.

This is a non-degree applicable course and is offered on a pass/no pass basis. All students are required to concurrently enroll in the one-unit reading lab, EDEV 021L.

3 Units

54 Lecture hours

EDEV 021L

Literacy Skills II Lab

Prerequisite/Corequisite: EDEV 021

This course is a skills class designed for students with learning disabilities who need to improve reading comprehension and vocabulary through individually prescribed lab work. Students will complete reading tasks designed to complement the activities of their reading course. Students are required to be concurrently enrolled in EDEV 021, Literacy Skills II.

0.5 Unit

27 Lab hours

EDEV 022

Basic Arithmetic

This course is a review of the basic principles and skills of arithmetic. The general areas of review are operations of whole numbers and fractions, operations with decimals and proportional thinking, percent problems and applications to percents. This course is designed for students with special needs to master basic computational skills, develop problem solving and arithmetic skills, and acquire learning strategies to allow them to function successfully upon matriculating into upper level mathematics courses. This is a non-degree applicable course.

3 Units

54 Lecture hours

EDEV 024

Assessment for Learning Disabilities

Advisory: Appropriate placement through the Learning Disabilities Assessment Process

This course provides intensive diagnostic learning assessment for students with learning disabilities. A profile will be developed through cognitive and achievement assessment which will emphasize specific academic and learning modality strengths and weaknesses. Students will develop a Student Education Contract to help them improve in reading, writing, spelling, computation, and learning skills as well as plan for future educational support. Recommended for all students who suspect they may have a learning disability. This is a non-degree credit course.

0.5 Unit

27 Lab hours

EDEV 025**Adaptive Computer Technology**

This course helps disabled students to utilize adaptive computer hardware and software. Material will be provided which is relevant for each student's needs. Emphasis will also be placed on knowledge of appropriate compensatory strategies and familiarity with disability equipment. Documentation of a verifiable disability needs to be provided to the DSP&S office to enroll in the course. This is a non-degree credit course.

1 Unit**54 Lab hours****EDEV 026****Consumer Math**

This course is specifically designed for the Developmentally Delayed Learner (DDL) and students with special learning needs who would like to apply their math abilities to the workplace and everyday life. Home and money management; banking/obtaining credit; math skills in the workplace; use of calculators; time cards/taxes and benefits; and basic reading, writing and math across the curriculum are emphasized in the course. Guest speakers will be invited and student projects will reflect the students' conceptualization and ability to put into practice what is learned. This is a non-degree credit course.

3 Units**54 Lecture hours****EDEV 027****Strategies for Career Success**

Prerequisite: Students must meet measured appropriate adaptive behaviors that meet California Community Colleges Title V regulations for DSP&S

*Corequisite: EDEV 027L**Advisory: EDEV 020*

This course is designed specifically for the Developmentally Delayed Learner (DDL) and students with special learning needs to prepare them for employment. Emphasis is on developing skills in the areas of goal setting, career assessment inventory, career awareness, career exploration, choosing a career, career preparation, socialization, utilizing community resources and appropriate grooming and hygiene. This is a non-degree credit course and is offered on a pass/no pass basis.

3 Units**54 Lecture hours****EDEV 027L****Strategies for Career Success Lab***Prerequisite/Corequisite: EDEV 027**Advisory: EDEV 020*

This course is designed specifically for the Developmentally Delayed Learner (DDL) population and students with special learning needs.

The laboratory is a work experience program with minimum supervision. Students are placed in on- and off-campus work sites for 4 hours per week. They will receive on-the-job training with close supervision at the various locations - 4 weeks at each job site. This is a non-degree credit course and is offered on a pass/no pass basis.

1 Unit**54 Lab hours****EDEV 029****Independent Living Skills**

This course is designed specifically for the Developmentally Delayed Learner (DDL) population and students with special learning needs. Essential independent living skills are emphasized. Major topics focus on the how to live and work issues-from maintaining a healthy body and a safe home to finding and keeping a job. Desired outcome is for the student to develop the necessary skills to gain greater independence within-outside the family structure.

3 Units**54 Lecture hours****EDEV 030****English Skills***Corequisite: EDEV 030W*

This course is designed for students with learning disabilities who need to improve basic writing skills. A process approach to writing is integrated with reading assignments to provide a variety of writing experiences. Students practice strategies to develop thinking, language, and writing skills. This course is the beginning level of composition; it prepares students for success in ENGL 035 or ENGL 101.

This is a non-degree credit course and is offered on a pass/no pass basis. Students are required to concurrently enroll in EDEV 030W.

3 Units**54 Lecture hours****EDEV 030W****English Skills Workshop***Corequisite: EDEV 030*

This course is a skills class to assist students with learning disabilities in improving writing and language skills through instruction with the Learning Disabilities Specialist. Students will perform writing tasks designed to complement the activities of their composition class. This is a non-degree course and is offered on a credit/no credit basis. Students are required to concurrently enroll in EDEV 030, English Skills.

1 Unit**54 Lab hours****EDEV 033A****Mathematical Foundations**

Advisory: READ 022 or appropriate assessment; ENGL 030 or EDEV 030 or ENLA 034 or appropriate assessment
EDEV 033A is intended to mirror MATH 033A. It combines topics from both Basic Math and Pre-Algebra, including operations with whole numbers, integers, fractions, and decimals. This course serves as a foundational course for all students. Completion of EDEV 033A will enable the student to register for EDEV 033B or MATH 033B. Students must complete MATH 033A and MATH 033B within a maximum period of 24 months. The course is designed for students with special needs to master and develop problem solving and arithmetic skills and acquire learning strategies to allow them to function successfully upon matriculating into upper level mathematics courses. This is a non-degree applicable course.

2.5 Units**45 Lecture hours****EDEV 033B****Mathematical Foundations**

Advisory: READ 022 or appropriate assessment; ENGL 030 or EDEV 030 or ENLA 034 or appropriate assessment
EDEV 033B is intended to mirror MATH 033B. This course combines topics from both Basic Math and Pre-Algebra, including rates, ratios, and proportional thinking, percent problems and applications to percent, and an introduction to algebraic thinking using fundamental principles of expressions and solving linear equations. This course serves as a foundational course for all students. Students must complete EDEV 033A and EDEV 033B within a maximum period of 24 months. The course is designed for students with special needs to master and develop problem solving and arithmetic skills and acquire learning strategies to allow them to function successfully upon matriculating into upper level mathematics courses. This is a non-degree applicable course.

2.5 Units**45 Lecture hours****EDEV 101****College and Life Success (Same as COUN 101)**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learn-

ing, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

3 Units

54 Lecture hours

EDEV 134

Study Techniques

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is a course in college study skills which also addresses the needs of students identified with special learning needs. Students are taught specific techniques, principles, and strategies which enable them to effectively acquire, integrate, store, and retrieve information and thus become more successful students. Topics in this course include in-depth instruction in critical reading and thinking, time management, memory techniques, note-taking, test-taking, creativity, and communication. Students are encouraged to utilize appropriate college resources.

3 Units

54 Lecture hours

ELECTRONICS

Division of Career & Technical Education

ELEC 041

High Reliability Electronic Fabrication

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course introduces the student to the techniques required for the use of hand tools in the building and maintenance of electronics equipment. Particular attention is devoted to soldering and other assembly operations which must frequently be performed by electronic technicians.

3 Units

36 Lecture hours

54 Lab hours

ELEC 050

Introduction to the Electrical Industry

Advisory: READ 043 or appropriate assessment

This introductory course is for a general audience and for those contemplating a career in the powerline (electrical) industry. Students will become acquainted with the basic concepts of terminology and will receive hands-on experience with

components and measuring equipment.

2 Units

27 Lecture hours

27 Lab hours

ELEC 051

Electrical Power Distribution Systems

Prerequisite: ELEC 050

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This is an introductory course for linemen and those interested in a career in the power utility industry.

This is the second class of a five class program designed to provide the student with knowledge and skills with electrical power distribution systems. This course explains how electricity is generated and delivered to customers. Course content includes safety, basic electrical theory of generation, transmission, transformers, regulators, fuses, meters, and applied mathematics to illustrate basic electricity relationships of components in an electrical power distribution system.

3 Units

45 Lecture hours

27 Lab hours

ELEC 052

Distribution of Electrical Power

Prerequisite: ELEC 051

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This is an introductory course for linemen and those interested in a career in the power utility industry. This is the third class of a five class program designed to provide the student with knowledge and skills with electrical power distribution systems. This course further explains the distribution of electrical energy, starting with the various methods of generation, through a more extensive look into various transmission systems, into the rural and urban substations, and ending at the customer's service entrance. Course content includes safety, electrical theory of generation, transmission, distribution, substations, transformers, and applied mathematics related to the components of an electrical power distribution system.

3 Units

45 Lecture hours

27 Lab hours

ELEC 061

Fundamentals of Wire and Cabling

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course will present the principles and practices of copper cable wiring technology and includes instruction in the design, installation, and maintenance of copper wiring systems for intelligent control systems, lighting and appliance control devices, communication, and networking. Also includes instruction in household and institutional power wiring. This course is designed for students wanting to work in the Home Technology Service industry.

2 Units

27 Lecture hours

27 Lab hours

ELEC 062

Fundamentals of Fiber Optics

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course presents the principles and practices of fiber optics and optoelectronic technology and includes instruction in the design, installation, and maintenance of fiber optic cabling control systems and optoelectronic control systems for computer communication and networking systems. This course is designed for students wanting to work in the Home Technology Service industry.

2 Units

27 Lecture hours

27 Lab hours

ELEC 063

Fundamentals of Wireless Communication

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course presents the principles and practices of wireless communication technology and includes instruction in the design, installation, and maintenance of wireless communication technology network systems. Emphasis is placed on system reliability, security, and cost containment concerns. This course is designed for students wanting to work in the Home Technology Service industry.

2 Units

27 Lecture hours

27 Lab hours

ELEC 064

Home Technology Integration Technologies

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course presents the principles and practices of installing and maintaining home technology. Students are exposed to home lighting controls, computer networking, home security, home entertainment systems including video, data, and voice, heating ventilation and air conditioning control systems, and

home systems integration. This course prepares the student for Home Technology Industry certification and is designed for students wanting to work in the Home Technology Service industry.

4 Units

54 Lecture hours

54 Lab hours

ELEC 070

Applied Telecommunications Technology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This is an introductory course that will examine the theory behind present day wireless (cellular) telecommunications systems which will include an in-depth analysis of the design and installation of these systems. The course is intended for students interested in a career in the wireless telecommunications industry. Topics will include: mobile devices networks, antenna orientation, base station system, and the operation and support system associated with the wireless systems. Also presented are topics on environmental effects, governmental impact and history of wireless telecommunications.

3 Units

45 Lecture hours

27 Lab hours

ELEC 071

Mobile and Wireless Communications

Prerequisite: ELEC 070

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This is the second class of a five class program that will further examine the theory behind present day wireless (cellular) telecommunications systems. This course is designed to provide students with information and skills associated with the wireless (cellular) telecommunications industry. The course is intended for students that are interested in a new career or are currently working in the wireless telecommunications industry. Topics will include: Wireless standards and protocols and the critical issues of compatibility, internetworking, and voice/data convergence, design and integration of WCDMA/UMTS, CDMA2000, and SCDMA into existing cellular/PCS networks. Also presented are topics on RF propagation, 3G and 4G networks, and the future of wireless telecommunications.

3 Units

45 Lecture hours

27 Lab hours

ELEC 100

D.C. and A.C. Fundamentals

Prerequisite: MATH 030 or MATH 030D or MATH 033 or appropriate assessment, or TCED 080

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This introductory course in D.C. and A.C. electricity is for general audience and for those contemplating a career in the electrical industry. Course content includes basic theory, resistance, capacitance, inductance, simple D.C. and A.C. circuits, transformers, measuring instruments, batteries, motors and generators.

3 Units

45 Lecture hours

27 Lab hours

ELEC 101

D/C Electronic Circuits and Devices

Prerequisite: MATH 030 or MATH 030D or MATH 033 or appropriate assessment, or TCED 080

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to the field of Direct Current (D/C) electricity/electronics. Emphasis is on the theory of operation, physical properties and characteristics of DC electrical/electronic circuits and devices. Students will analyze circuits and solve problems utilizing basic network analysis methods. The course will instruct students on the arrangement of circuit diagrams, proper identification of circuit/device symbols, and use of wiring schematics. Laboratory work provides experience with the design and test of basic electrical circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 102

A/C Electronic Circuits and Devices

Prerequisite: MATH 030 or 030D or MATH 033 or appropriate assessment, or TCED 080

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to the field of Alternating Current (A/C) electricity/electronics. Emphasis is on the theory of operation, physical properties and characteristics

of AC electrical/electronic circuits and devices. Students will analyze circuits and solve problems utilizing basic network analysis methods. The course will instruct students on the arrangement of circuit diagrams, proper identification of circuit/device symbols, and use of wiring schematics. Laboratory work provides experience with the design and test of basic electrical circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 105

Computer Simulation and Fabrication of Electronic Circuits

Prerequisite: ELEC 101

Transfers to: CSU

This course provides an introduction to the use of computer software in the simulation and fabrication of electronic circuits and printed circuit boards. It is intended for students in electronics technology as well as those currently working in the electronics industry. Using a popular educational version of circuit simulation software, the Electronics Workbench TM program suite, students will be introduced first to concepts of analog and digital circuit simulation. The modeled circuits are then processed, fabricated and ultimately tested as prototype circuit boards. Students will learn to use a miniature computer controlled circuit board mill to produce the prototypes.

2 Units

18 Lecture hours

54 Lab hours

ELEC 108

Introduction to Solid State Devices and Circuits

Prerequisite: ELEC 101 and 102

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to solid state devices used in the field of electronics. Emphasis is on the theory of operation, methods of fabrication, physical properties and characteristics of semiconductor devices and circuits. Devices considered are diodes, BJT and FET transistors, special diodes, Thyristors (SCR), IC's (digital and analog), typical applications of each device in amplifier, regulator, oscillator, timer and digital circuits. Students will analyze circuits and solve problems utilizing basic

network analysis methods. Laboratory work provides experience with the design and test of basic solid state device circuits including signal tracing and troubleshooting, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 109

Linear, Analog Circuits and Devices

Prerequisite: ELEC 101 and 102

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on linear analog circuits and devices used in the field of electronics. Emphasis is on the theory of operation, methods of fabrication, physical properties and characteristics of operational amplifiers, other discrete circuits and external circuitry. This course builds on the foundation laid in Electronics 108, continuing the study of solid state devices and circuits with emphasis on the Integrated Circuit (IC) and applications. Students will analyze circuits and solve problems utilizing basic network analysis methods. IC device characteristics are explored. Input/output impedance, drift, offset, bias current, Gain, Frequency Response and simple modeling are among the topics considered. Use of device data sheets and application notes will be introduced to provide training in the selection of devices for specific purposes. Laboratory work provides experience with the design and test of basic solid state device circuits including signal tracing and troubleshooting, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 111

Introduction to Digital Electronics

Prerequisite: ELEC 101 and 102

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to digital electronic principles common to all areas of electronics. The course

will emphasize study of number systems and representations such as Binary codes, Hexadecimal codes and Boolean algebra. Analysis and design of combinational and sequential Logic Circuits, Gates, Adders, TTL: small and medium scale integrated devices, programmable logic and simulation of digital circuits and CMOS, ECL families will be covered. Laboratory work will also provide experience with the design and test of basic digital circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 208

Advanced Solid State Devices and Circuits

Prerequisite: ELEC 108

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is a continuation of the study of solid state devices used in the field of electronics presented in the introductory course ELEC 108. Emphasis is on the theory of operation, physical properties and characteristics of advanced semiconductor devices and circuits. Devices considered are advanced design transistors, SCRs and other Integrated Circuits-IC's (digital and analog), typical applications of each device in inverters, converters, and switching power supplies. Students will analyze circuits and solve problems utilizing basic network analysis methods with emphasis on advanced biasing, cascading, coupling and phase shifting. Laboratory work provides experience with the design and test of advanced solid state device circuits including signal tracing and troubleshooting, use of schematic diagrams and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 211

Advanced Digital Electronics

Prerequisite: ELEC 111

Advisory: ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

This course is a continuation of introduction to electronic digital principles common to all areas of electronics. Building on the foundations covered in ELEC 111, emphasis will be placed on the study of various types of Counters, A/D and D/A Converters, I-O Devices, Memories and an introduction to Micro Computers. Through laboratory work, students learn applications by constructing various circuits and devices. Advanced analysis and design of combinational and sequential Logic Circuits, Gates, Adders, TTL: small and medium scale integrated devices, programmable logic and simulation of digital circuits and ECL families will be covered. Laboratory work will also provide experience with the design and test of basic digital circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 240

Microprocessors and Microcomputing

Prerequisite: ELEC 211

Transfers to: CSU

This course will provide a fundamental knowledge of the general architecture of microcomputers. Emphasis is on the study of organization and structuring of the major hardware and software components of computers which includes, the CPU and some of the I/O devices used to interface the CPU to various peripheral devices. It considers the physical aspects of information transfer and control within a digital computer. Network architecture, communication protocol, as well as micro-programming instruction sets and assembly language programming are also emphasized. Laboratory exercises will focus on construct and deconstruct of a basic computer, along with test and troubleshooting of critical functions. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

4 Units

54 Lecture hours

54 Lab hours

ELEC 299

Directed Study in Electronics Technology

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or

receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Electronics Technology beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

ELECTRONICS/ ELECTRIC UTILITY TECHNOLOGY

Division of Career &
Technical Education

EUT 110

Electrical Utility Technology I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; ELEC 050

Transfers to: CSU

This is an introductory course that will examine the theory behind present day utility energy systems. This course provides an orientation in the power distribution and line construction industry. Basic electrical principles and safety on the job are emphasized. Topics include basic mathematical computations, including trigonometry fundamentals, electron theory and the fundamentals of magnetism. Students will combine electrical theory with laboratory and practical applications in the course of study. This course is intended for students that are contemplating a career in the electrical utility industry.

3 Units

45 Lecture hours

27 Lab hours

EUT 112

Electrical Utility Technology II

Prerequisite: EUT 110

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; ELEC 050

Transfers to: CSU

This course involves the study of the power distribution and line construction industry. Topics include methods of producing electricity, A.C. and D.C. meters and circuitry and electric batteries. Students will also learn about Ohm's Law, Kirchhoff's Law, and electromagnetic induction. This course is intended for students that are contemplating a career in the electrical utility industry.

3 Units

45 Lecture hours

27 Lab hours

EUT 114

Electrical Utility Technology III

Prerequisite: EUT 112

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; ELEC 050

Transfers to: CSU

This course is a study of alternating current circuits, A.C. and D.C. motors and generators, pole and overhead construction, and transformers and voltage regulators. Topics include schematics, shunt and series capacitors and safety issues outlined by the Occupational Safety and Health Act (OSHA). Calculating power used by electrical circuits is also covered. This course is intended for students that are contemplating a career in the electrical utility industry.

3 Units

45 Lecture hours

27 Lab hours

EUT 116

Electrical Utility Technology IV

Prerequisite: EUT 114

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; ELEC 050

Transfers to: CSU

This course is a continuation of pole and overhead line construction. Topics covered include state safety orders for line construction and maintenance, transmission and distribution systems and conductors and electrical systems faults. Students will also learn about short circuits, system protective concepts and how to identify control circuits from wiring diagrams. This course is intended for students that are contemplating a career in the electrical utility industry.

3 Units

45 Lecture hours

27 Lab hours

EUT 118

Electrical Utility Technology V

Prerequisite: EUT 116

Advisory: ENGL 035 or ENLA 100 or

appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; ELEC 050

Transfers to: CSU

This course covers advanced theory of electrical distribution lines and systems. Other topics include phasing, system groundings, substations and the use of electrical instruments. Students will also learn how to connect transformers in accordance with the state code. Usage of fusing tables and reference tables, including technical symbols are also covered. This course is intended for students that are contemplating a career in the electrical utility industry.

3 Units

45 Lecture hours

27 Lab hours

EUT 120

Utility Pole Climbing Techniques

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This course is designed to provide instruction on climbing a utility pole safely using the latest OSHA fall resistant requirements. At the completion of this course, students will be able to safely ascend and descend a utility pole using gaffs and extension ladders. This course provides an orientation in the power distribution and line construction industry. Basic electrical principles and safety on the job are emphasized. This course is intended for students that are contemplating a career in the electrical utility industry.

4 Units

54 Lecture hours

54 Lab hours

EMERGENCY MEDICAL TECHNICIAN

Division of Public Safety

EMT 093

Emergency Medical Technician

Prerequisite: FTEC 121

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; BIOL 125

This course is designed to certify students as California State Emergency Medical Technicians and gain employment as an ambulance driver or ambulance attendant. After successful completion of this course, students will be authorized to take the National Registry EMT examinations and then request certification as an EMT through the Los Angeles

County Department of Health or other local EMS accrediting agencies. Topics discussed include pre-hospital care terminology, cardiovascular emergencies, pre-hospital childbirth, communicable disease, extrication tools and equipment, automatic external defibrillation and an understanding of the Emergency Medical System. Students must pass a background check and EMT medical physical with a 10-panel drug screen.
8 Units
117 Lecture hours
81 Lab hours

EMT 0931
Emergency Vehicle Operations
(Formerly EMT 093.1)

Prerequisite: READ 043 or appropriate assessment; Possession of a class "C" license.
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment
 This course is designed for EMT students and other interested students to gain certification to obtain an Ambulance Driver Certificate in California. An Ambulance Driver Certificate can be obtained prior to completion of this course. Pre-trip inspection, driving skills and a driving test are parts of this course. Students will complete their certification through the California DMV. A physical may be required to meet California DMV requirements in regards to licensing.
4 Units
54 Lecture hours
54 Lab hours

EMT 290
Cooperative Work Experience/Internship for Emergency Medical Technician Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU
 This course supports and reinforces on-the-job training in the Emergency Medical Technician field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Emergency Medical Technician and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of fire technology or EMS (emergency medical services) and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:
 1 Unit/60 hours; 2 Units/120 hours;
 3 Units/180 hours; 4 Units/240 hours
Student Paid Internship:
 1 Unit/75 hours; 2 Units/150 hours;
 3 Units/225 hours; 4 Units/300 hours.
1 to 4 Units
3 Lecture hours
60 to 300 Other hours

ENGINEERING

Division of Mathematics, Sciences, and Engineering

ENGR 212
**Computational Methods in
 MATLAB/Octave**

Prerequisite: PHY 211, MATH 190 or MATH 190H
Advisory: READ 043 or appropriate assessment
Transfers to: CSU
 This course will teach scientific computation using MATLAB/Octave software packages. Topics include an introduction to matrix and vector methods, numerical methods including integration and differentiation, Monte Carlo methods, statistical analysis of large data sets, and the creation of scientific graphics. This will be applied to solve typical problems in physics and engineering.
4 Units
54 Lecture hours
54 Lab hours

ENGR 217
Electric Circuit Analysis

Prerequisite: PHY 213
Corequisite: MATH 270
Transfers to: UC, CSU
 This course is for students who intend to pursue a major in engineering. The course is the study of basic circuit analysis techniques including Ohm's law, Kirchhoff's laws, mesh-current and node-voltage method, Thévenin and Norton's equivalent circuits, transient and steady-state responses of passive circuits, and operational amplifiers. This course also includes sinusoidal steady-state analysis of AC circuits, AC power calculation, three-phase circuits, mutual inductance, frequency response, and resonance.
3 Units
54 Lecture hours

ENGR 217L
Electric Circuit Analysis Lab

Prerequisite: PHY 213, ENGR 217 and MATH 270
Corequisite: ENGR 217, MATH 270
Transfers to: CSU
 This course is an introduction to the design, construction, and measurement of electrical circuits including operational amplifiers. The use of

multimeters, oscilloscopes, power supplies, and function generators will be emphasized, as well as the simulation of circuits with software. DC, transient, and AC steady-state conditions are investigated.
1 Unit
54 Lab hours

ENGR 235
Engineering Mechanics: Statics

Prerequisite: PHY 211
Transfers to: UC, CSU
 This course is for students who intend to pursue a major in engineering and provides an overview of the effect of two and three dimensional force systems on particles and rigid bodies under equilibrium conditions. Topics covered include distributed forces and determination of centroids, analysis of trusses, frames and machines, internal forces and moments, systems involving friction, and method of virtual work and equilibrium.
3 Units
54 Lecture hours

ENGR 245
Engineering Mechanics: Dynamics

Prerequisite: ENGR 235
Transfers to: CSU
 This course is for students who intend to pursue a major in engineering and provides an overview of the effect of two and three dimensional force systems on particles and rigid bodies in motion. Topics include kinematics of particles and rigid bodies; applications of Newton's Second Law; energy and momentum methods in the study of motions; translational, rotational, & general planar motion; and mechanical vibrations.
3 Units
54 Lecture hours

ENGINEERING TECHNOLOGY

Division of Career & Technical Education

ENGT 101
**Introduction to Technical Drawing &
 Graphics**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU
 This is a basic course in technical drawing and graphics for students with no previous drafting skills or training. The course is designed for students who wish to pursue training in fields and careers related to architecture, civil and engineering design drafting. Practical application will be

provided with the tools, techniques, standards, and practices used in the industries that need technical drawings and graphics.

3 Units
36 Lecture hours
54 Lab hours

ENGT 105
Architectural and Technical Freehand Sketching

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to develop skill in freehand drawing as used by the design professionals in both architectural and technical applications. Using pen, pencil, marker, basic principles of proportion, composition and freehand techniques, students will prepare technical sketches to industry standards, in isometric, oblique, perspective and orthographic. Design considerations will also be introduced for various projects involving preliminary design sketches. This course is open to all students who wish to develop freehand drawing skills. It is required for all students working towards a degree or certificate in the Architecture and Engineering Design Drafting program.

2 Units
27 Lecture hours
27 Lab hours

ENGT 122
Engineering Design Graphics

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting
Transfers to: UC, CSU

This course is an introduction to graphics as used in engineering design and the systematic use of graphic solutions and descriptive geometry to solve three dimensional engineering problems involving space, points, planes and lines. Technical drawing using I.S.O. and A.N.S.I. standards including geometric dimensioning and tolerancing, will be stressed with a conceptual design project and preparation of working drawings. This course is required for all students working towards a degree or certificate in the Architecture and Engineering Design Drafting program. The course is also recommended for students interested in transferring to Schools of Engineering.

4 Units
54 Lecture hours
54 Lab hours

ENGT 131
Engineering and Manufacturing Applications of Technical Drawing

Prerequisite: ENGT 122
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 150 or ENGT 170, or CADD experience
Transfers to: CSU

This intermediate course is the study of technical drawing as used in manufacturing applications of design and engineering technology. This course is for all students in areas of study related to Engineering, Technical Drafting, Design and Computer Graphics. The course incorporates orthographic projection, introduction to tool design, and applications of descriptive geometry through layouts and developments. The course will also cover ANSI Y14.5, precision dimensioning, geometric tolerancing, manufacturing terminology and processes. Lab exercises and drawings will be used to reinforce lecture and demonstration concepts.

4 Units
54 Lecture hours
54 Lab hours

ENGT 138
Engineering Careers & Applications

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is for all students interested in the career field of Engineering Design Drafting. Engineering Careers and Applications will explore the career opportunities and training requirements in the field of engineering and engineering technology. Topics will include the history of engineering, careers in engineering, ethics and responsibilities of the engineer, communicating and problem solving.

2 Units
27 Lecture hours
27 Lab hours

ENGT 150
AutoCAD for Basic CADD Applications

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting
Transfers to: CSU

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of AutoCAD software will be provided. Students will produce 2D

orthographic, isometric, and basic 3D model solutions of mechanical and architectural applications.

4 Units
54 Lecture hours
54 Lab hours

ENGT 170
MicroStation for Basic CADD Applications

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting
Transfers to: CSU

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of MicroStation software will be provided. Students will produce 2D orthographic and basic 3D model solutions of mechanical and architectural applications.

4 Units
54 Lecture hours
54 Lab hours

ENGT 200
Intermediate AutoCAD for Design and Production

Prerequisite: ENGT 150
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101 or two years of high school drafting
Transfers to: CSU

This course is for students pursuing degrees or certificates in the Architecture and Engineering Design Drafting Program and for those who wish to enhance their AutoCAD skills for workplace productivity. The course is an intermediate application study in computer aided design, drafting, and graphics using the latest revisions of AutoCAD. Combined with previously learned technical drafting conventions and basic AutoCAD operational skills, students will use AutoCAD to produce detailed drawings that involve model-space and paperspace, 2D and 3D objects, block attributes and viewport scales. Emphasis will be placed on working with multiple drawing files using external files to create mechanical, architectural and civil projects.

3 Units
36 Lecture hours
54 Lab hours

ENGT 231
Technical Product Design and Presentation

Prerequisite: ENGT 122; ENGT 150
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

This intermediate course is the study of technical presentation drawing, product proposal and design including electro-mechanical packaging, orthographic and axonometric illustration for presentation and assembly pictorial views. Using computer aided design, manual drafting, and graphic techniques, students will apply previously learned skills to develop graphic illustrations of mechanical applications for use in catalogs, manuals and engineering support presentation documents. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics.

4 Units
54 Lecture hours
54 Lab hours

ENGT 250
Parametric Modeling 3D Applications for Mechanical Design

Prerequisite: ENGT 122 and ENGT 150
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course presents advanced applications of 2D and 3D Computer Aided Design Drafting (CADD) and an introduction to parametric modeling and rapid prototyping utilizing the latest releases of Autodesk Inventor series, SolidWorks, and other parametric modeling software to produce solutions for mechanical applications. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics, emphasizes CADD generated three dimensional graphics using wire frame, surface modeling, and parametric solids.

4 Units
54 Lecture hours
54 Lab hours

ENGT 265
Pressure Piping Design

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 150 or ENGT 170 or industry experience in CADD applications

Transfers to: CSU

This course is for those students with CADD experience who are interested in the career field of pressure piping design engineering. This course presents the preparation of engineering detail drawings of piping systems for

commercial, utilities and industrial plants. Included is information and work dealing with the location, installation, operation, and maintenance of pumps, steam turbines, compressors, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

3 Units
36 Lecture hours
54 Lab hours

ENGT 266
Pressure Piping Applications

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 150 or ENGT 170 or industry experience in CADD applications; ENGT 265

Transfers to: CSU

This course is for all students interested in the career field of pressure piping design engineering. This course presents the advanced preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is advanced information and layout work dealing with the location, installation, operation of pumps, steam turbines, compressors, vertical vessels, horizontal vessels, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

3 Units
36 Lecture hours
54 Lab hours

ENGT 270
Solid Works for 3D Modeling and Prototype Applications

Prerequisite: ENGT 122; ENGT 150 or ENGT 170

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course presents an intensive study in 3D computer graphics and CADD (Computer Assisted Design and Drafting) utilizing the latest release of SolidWorks Software. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics. Students will produce three dimensional parametric computer generated virtual models incorporating mechanical design refinements. The course emphasizes high technology skills which are necessary to function as a design professional to apply 3D design graphics technology to specific disciplines of mechanical engineering, machine drafting and design, manufacturing, animation, modeling and illustration. Students will be introduced to a variety of

means to directly produce prototype models from CADD generated solid geometry.

4 Units
54 Lecture hours
54 Lab hours

ENGT 280
Advanced MicroStation for CADD & BIM Applications (Same as ARCH 280)

Prerequisite: ENGT 170, or verifiable work experience and proficiency in MicroStation XM or V8i

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; ENGT 101 or two years of high school drafting

Transfers to: CSU

This course is for students pursuing an advanced study in MicroStation 3D parametric CADD (Computer Assisted Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture. Students will apply previously learned drafting conventions to produce two and three dimensional CADD and BIM generated mechanical and architectural drawings and virtual design models. This course benefits all students studying Architecture, Civil, Engineering of all types, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

4 Units
54 Lecture hours
54 Lab hours

ENGT 290
Cooperative Work Experience/Internship for Drafting Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of drafting and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:
1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.
1 to 4 Units
3 Lecture hours
60 to 300 Other hours

ENGT 299**Directed Study in Engineering Design Drafting**

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Engineering Design Drafting beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units
54 to 162 Lab hours

ENGLISH

Division of Communications & Languages

ENGL 030**Introductory Composition for Developing Writers**

Corequisite: ENGL 030W
Advisory: READ 022 or appropriate assessment

This course assists students in developing thinking, language, and writing skills through structured assignments that increase in complexity throughout the semester. This is the first or beginning course in composition; it prepares students for success in either ENGL 035 or ENGL 101. Students must concurrently enroll in the one-unit Writing Workshop, ENGL 030W. This is a non-degree applicable course and is offered on a pass/no pass basis.

3 Units
54 Lecture hours

ENGL 030W**Writing Workshop**

Corequisite: ENGL 030
Advisory: READ 022 or appropriate assessment

This is a lab course designed to assist students in developing and improving their writing and language skills through individual conferences with composition instructors. Students will complete and revise assignments that complement the goals and objectives of ENGL 030. All ENGL 030 students must enroll in this course. This course may be repeated one time for credit. This is a non-degree applicable course offered on a pass-no pass basis.

0.5 Units
27 Lab hours

ENGL 035**Introduction to College Composition**

Prerequisite: ENGL 030 or ENLA 034 or appropriate assessment
Corequisite: ENGL 035W

ENGL 035, a foundation-level composition course, prepares students to succeed in transfer-level English courses by developing and reinforcing essential college writing skills. Instruction on utilizing critical reading, thinking, and reasoning skills will be the focus of selected college-level readings. Through the use of engaging thematic units, students will practice effective written communication through a process-centered approach, including pre-writing, drafting, and multiple revisions of their work during the submission process. Throughout the semester, emphasis will be placed on active learning, skill development, as well as tools for college and life success. This is a non-degree credit course and is offered on a pass/no pass basis.

In addition to ENGL 035, students will concurrently enroll in the ENGL 035W Writing Workshop where they will take part in workshop-specific assignments and additional individualized activities that complement and strengthen their work in ENGL 035. ENGL 035W Writing Workshop is required and offered on a pass/no pass basis.

3 Units
54 Lecture hours

ENGL 035W**Writing Workshop**

Corequisite: ENGL 035
Advisory: READ 022 or appropriate assessment

In this course, ENGL 035 students will participate in instruction that is designed to complement the Course Content from ENGL 035. Students will develop and improve their writing and language skills through individualized lessons and conferences with composition instructors. All ENGL 035 students must be concurrently enrolled in this course. This course is non-degree applicable,

offered on a Pass/No Pass basis, and may be repeated one time for credit.

0.5 Units
27 Lab hours

ENGL 101 (C-ID ENGL 100)**College Composition and Research**

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment
Transfers to: UC, CSU

This is a composition course that enables students to generate logical, coherent essays and reports necessary to academic and professional success. Students will become proficient in research techniques, learn critical reading and thinking skills through expository and persuasive reading selections, and apply these skills to creating original essays and a final research paper. The lab component of this course is designed to assist students in improving and refining their writing and language skills. Students will complete lab activities that enhance their ability to compose logical, well-supported arguments that exhibit grammatical fluency and correct documentation form. Students will meet with composition instructors through individual conferences that address students' specific writing concerns. This course is designed for students who wish to fulfill the General Education requirement for Written Communication.

3.5 Units
54 Lecture hours
27 Lab hours

ENGL 125**Grammar and Usage**

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course explores parts of speech, varieties of sentence structures, common grammar and usage problems, and how to apply these issues to real-world communications. It is designed for students who wish to expand their knowledge of standard American English and thereby increase their skill in the written and spoken language. It is especially helpful for students planning to go into teaching.

3 Units
54 Lecture hours

ENGL 126**Languages of the World**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is a linguistics course which covers the major languages families of the world and representative languages from those families. It presents the phonology, morphol-

ogy, syntax, and pragmatics of these languages. It is specifically targeted at those who will be working with non-native speakers of English in order to equip them to recognize the cross-linguistic influences of other languages on English, thus preparing them to communicate more effectively with their clients and/or students and to assess the linguistic and sociolinguistic factors which affect communication. This course is useful for majors in foreign language, anthropology, communications, health science, and English, and especially for those planning to enter elementary and secondary teaching in California, with its diversity of languages and cultures.

3 Units

54 Lecture hours

ENGL 127

Language Structure and Language Use: Introduction to Linguistics

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course explores the nature and structure of language, including phonology, morphology, syntax, semantics and discourse, language acquisition and language development, and language use. This course is useful for students planning to enter elementary or secondary teaching and for those majoring in foreign language, English, communications, and anthropology.

3 Units

54 Lecture hours

ENGL 127H

Language Structure & Language Use: Introduction to Linguistics Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course explores the nature and structure of language, including phonology, morphology, syntax, semantics and discourse, language acquisition and language development, and language use. This course is useful for students planning to enter elementary or secondary teaching and for those majoring in foreign language, English, communications, and anthropology. This course is designed for students eligible for the Honors Program.

3 Units

54 Lecture hours

ENGL 131 (C-ID ENGL 200)

Creative Writing

Prerequisite: ENGL 101

Transfers to: UC, CSU

This is a course of expression for students who are interested in various forms of writing. It offers students a

workshop setting in which to develop their writing skills in various genres, such as fiction, poetry, and playwriting. Students are required to write regularly, present their own work in class for discussion, and develop critical standards for evaluating the merit of their own work and of the work of their peers.

3 Units

54 Lecture hours

ENGL 201 (C-ID ENGL 105)

Advanced Composition and Critical Thinking

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ENGL 201 or ENGL 201H)

This advanced composition course is open to all students who have successfully completed ENGL 101 and is designed for those who expect to transfer to four-year colleges or universities. Students will read and write extensively, while applying critical thinking skills and research techniques. Students will demonstrate these abilities in advanced composition as they research and write a series of argumentative essays, which demonstrate the ability to analyze issues, evaluate positions, and argue persuasively through clear, concise prose. The lab component of this course is designed to assist students in advancing and refining their writing and language skills and will augment their ability to exercise critical thought. Students will complete lab activities that further enhance their ability to compose logical, well-supported arguments that exhibit grammatical fluency and correct documentation form. Students will meet with composition instructors through individual conferences that address students' specific writing concerns.

3.5 Units

54 Lecture hours

27 Lab hours

ENGL 201H (C-ID ENGL 105)

Advanced Composition and Critical Thinking Honors

Prerequisite: ENGL 101

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: ENGL 201 or ENGL 201H)

This advanced composition course is open to all students who have successfully completed ENGL 101 and is designed for those who expect to transfer to four-year colleges or universities. Students will read and write extensively, while applying critical thinking skills and research techniques. Students will demonstrate these abilities in advanced composition as they research and write a

series of argumentative essays, which demonstrate the ability to analyze issues, evaluate positions, and argue persuasively through clear, concise prose. This Honors section is open to all students who have completed ENGL 101 with a grade of C or better. Students will be expected to analyze issues in more depth and write on them at greater length than they would in a non-honors section.

3.5 Units

54 Lecture hours

27 Lab hours

ENGL 299

Directed Study: English

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

ENGL 325

Technical and Professional Writing

Prerequisite: ENGL 201 or ENGL 201H

This upper division General Education course is designed for students pursuing a Bachelors of Science degree in Automotive Technology and is open to all students who have successfully completed ENGL 201 or ENGL 201H. Students will develop expository writing skills on technical subjects relevant to automotive and transportation-related industries, business, science, government, and other similar fields. Written assign-

ments will comprise short forms including technical description, proposals, manuals, and journal articles, as well as longer formal papers, feasibility studies, and technical reports. This course will help students develop principles of clear writing appropriate to Automotive Industry standards.

3 Units
54 Lecture hours

ENGLISH AS A NEW LANGUAGE

Division of Communications & Languages

ENLA 011 Basic Vocabulary

Advisory: ENLA 014 or appropriate assessment

This course is designed to help non-native speakers of English learn meanings, forms, uses, and pronunciations of 200-250 English words not presently in their vocabulary. Special emphasis is given to examining words in context, parts of speech, and inflections. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

3 Units
54 Lecture hours
8 Lab hours

ENLA 012 Beginning Speaking and Listening

This course is for English language learners who wish to improve their conversational skills in English. Areas of emphasis include dictation, English phrasing patterns, various speaking situations, listening practice, and self-correction. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

3 Units
54 Lecture hours
8 Lab hours

ENLA 013 Basic Grammar

Advisory: NESL 018 or appropriate assessment

This is an introductory grammar course for non-native speakers of English. Through reading, writing, listening, and speaking activities, students learn basic English grammar while focusing on verb structures. This course is offered on a pass/no pass basis and is not applicable to the

degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

3 Units
54 Lecture hours
8 Lab hours

ENLA 014 Beginning Composition

Prerequisite: Appropriate placement through the Rio Hondo Assessment Process

Advisory: NESL 018

This course is designed to help limited English-speaking students communicate better in English. The course focuses on the development of written skills. Topics specifically emphasized are idiomatic expressions, vocabulary, reading and writing. These are taught at an entry level. This course is offered on a pass/no pass basis and is not applicable to the degree.

3.5 Units
54 Lecture hours
27 Lab hours

ENLA 022 Intermediate Speaking and Listening

Advisory: ENLA 012 or appropriate assessment

This course is for ENLA students who wish to improve their English speaking and listening skills at an intermediate level. Areas of emphasis include pronunciation, listening, oral communication, note taking and organizational skills. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab. Students initially enrolled in the course will be assessed and only those passing the assessment will be allowed to remain.

3 Units
54 Lecture hours
8 Lab hours

ENLA 023 Intermediate Grammar

Advisory: ENLA 013 or appropriate assessment; ENLA 024 or appropriate assessment

This course presents a multi skills approach to English grammar and sentence structure for second language students. Through reading, writing, listening, and related activities such as diction, close exercises, and sentence analysis, students practice the elements of correct English while focusing on verbs and verb forms. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab. Students initially

enrolled in the course will be assessed and only those passing the assessment will be allowed to remain.

3 Units
54 Lecture hours
8 Lab hours

ENLA 024 Intermediate Composition

Prerequisite: ENLA 014 or appropriate assessment

This is an intermediate composition class for non-native speakers of English focusing on the fundamentals of academic writing in English. Basic sentence structures, paragraph development, composition forms, English grammar and word usage are studied in various rhetorical modes. This course is offered on a pass/no pass basis and is not applicable to the degree.

3.5 Units
54 Lecture hours
27 Lab hours

ENLA 032 Advanced Speaking and Listening; Pronunciation and Accent Reduction

Advisory: READ 022 or appropriate assessment; ENLA 022 or appropriate assessment

ENLA 032 is a speaking, listening and pronunciation course intended for students who need further practice in spoken English and/or have difficulty understanding native speakers of English in academic and other situations. Its purpose is improved the pronunciation, articulation, speed and comprehension of non-native speakers of English. The course focuses on sounds in isolation, the blending of sounds in phrasal elements and the production of sentences incorporating correct intonation, accent, speed and rhythm. This course is offered on a pass/no pass basis and is not applicable to the degree.

3 Units
54 Lecture hours
8 Lab hours

ENLA 034 Intermediate-Advanced Composition

Prerequisite: ENLA 024 or appropriate assessment

A continuation of ENLA 024, this course is for ENLA students and emphasizes longer writings with more complicated sentence patterns leading up to a basic essay. Students focus on both thematic and rhetorical modes of composition while they practice topic sentences, thesis statements, subordination, and transitional expressions. This course is offered on a pass/no pass basis and is not applicable to the degree.

3.5 Units
54 Lecture hours
27 Lab hours

ENLA 100
Advanced Composition

Prerequisite: ENLA 034 or appropriate assessment

Transfers to: UC, CSU

ENLA 100 is the highest-level course of the ENLA writing sequence and an ENLA student's gateway in to ENGL 101. As a result of taking this course, students will be able to utilize various stages of the writing process, MLA conventions of academic writing in several rhetorical modes (including a research paper), and advanced levels of grammatical and mechanical accuracy in their writing.

3.5 Units

54 Lecture hours

27 Lab hours

ENVIRONMENTAL TECHNOLOGY

Division of Mathematics, Sciences, and Engineering

ET 110
Hazardous Waste Generation/Reduction/Treatment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to educate individuals working in or seeking employment in the hazardous waste management field with an overview of industrial processes and their generation of waste streams. The selected industries include: electroplating, metal finishing and printed circuit board production; oil refining and chemical production; steel production; general manufacturing; printing and graphic reproduction; agriculture; and consumer services.

3 Units

54 Lecture hours

ET 120
Introduction to Alternative Energy Technology (Same as AET 120)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This course is an introductory course that will examine the theory behind present day energy systems which will include an in-depth analysis of the design and installation of alternate energy systems. Topics will include: solar electrical systems, wind electrical systems, solar water heating systems, wind mechanical systems, small hydro-electrical systems, and conservation methods used to save

energy. Also presented are topics on geothermal energy, fuel cells, biomass systems, and applications of alternate energy in transportation, industrial, commercial, and residential systems. Students will collect solar data using an irradiance meter and determine power consumption of a typical residence to develop an alternative energy solution. This course is intended for students that are contemplating a career in the alternative energy industry.

3 Units

45 Lecture hours

27 Lab hours

ET 121
Photovoltaic Systems Design and Installation (Same as AET 121)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is an introductory course that will examine and implement the design and installation of solar photovoltaic power systems, which will include the installation of a working solar photovoltaic power system. Students will learn how to perform solar site evaluations, electrical load calculations, solar system size calculations, and installation techniques for grid-tie and off-the-grid photovoltaic systems. This course is designed to prepare the student for the North American Board of Certified Energy Practitioners (NABCEP) Entry Level Exam. This course is intended for students that are contemplating a career in the solar photovoltaic energy industry.

3 Units

45 Lecture hours

27 Lab hours

ET 122
Advanced Photovoltaic Systems Design and Installation (Same as AET 122)

Prerequisite: AET/ET 121

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is the second course in the photovoltaic series that will further examine and implement the design and installation of solar photovoltaic power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning photovoltaic installations. The topics include code compliant wiring of modules, inverters, charge controllers, batteries, grounding techniques and related topics. Additional topics include the design and installation of large commercial photovoltaic systems. This course is intended

for students that are interested in a career in the solar photovoltaic energy industry.

3 Units

45 Lecture hours

27 Lab hours

ET 123
Wind Energy Systems Design and Installation (Same as AET 123)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is an introductory course that will examine and implement the design and installation of wind power systems which will include the installation of a working wind generation power system. Students will learn how to perform wind site evaluations, electrical load calculations, wind system size calculations, hydraulics fundamentals, basic aerodynamics, and installation techniques for wind power generation systems. Students will learn how to design and install wind power generation system and obtain skills for employment. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

3 Units

45 Lecture hours

27 Lab hours

ET 124
Advanced Wind Energy Systems Design and Installation (Same as AET 124)

Prerequisite: AET/ET 123

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: CSU

This is the second course in the wind energy series that will further examine and implement the design and installation of wind power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning wind power installations. The topics include code compliant wiring of modules, inverters, charge controllers, grounding techniques and related topics. Additional topics include wind site evaluations, electrical load calculations, wind system size calculations, hydraulic fundamentals, basic aerodynamics, and installation techniques for large wind power generation systems. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

3 Units

45 Lecture hours

27 Lab hours

ET 130**Health Effects of Environmental Hazardous Materials**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; BIOL 120; BIOL 120L; CHEM 110

Transfers to: CSU

This course is designed to educate individuals working in or seeking employment in areas that include health and safety responsibilities. It provides an overview of how to identify and evaluate the hazards of chemical, physical and biological agents that can be encountered in industrial operations, waste disposal and remediation sites.

3 Units

54 Lecture hours

ET 150**Hazardous Waste Management Applications**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the environmental field with an overview of hazardous waste management and regulations. The course explains the hazardous waste regulatory framework and develops research skills in the hazardous waste area. Emphasis is placed on the following topics: universal waste, generator compliance, site investigation and remediation, permitting, enforcement, liability, and storm water discharge. The course also provides "hands-on" applications of the regulations. These applications include: preparing a hazardous waste manifest, labeling and storing containers, sampling and analysis, and preparing a Phase I environmental audit.

4 Units

54 Lecture hours

54 Lab hours

ET 160**Hazardous Waste Site Remediation Systems**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course provides an overview of remediation systems that are employed in cleaning up hazardous waste sites. The remediation systems that will be studied include: groundwater remediation systems, soil vapor extraction, chemical extrac-

tion/soil washing, solidification/stabilization, bioremediation, thermal processes, and chemical destruction. Specific details on the compounds removed, the fundamentals and specific applications of each method will be examined. Innovative remediation technologies and trends in remediation systems will be studied. A case study, which will highlight the remediation processes that are being used at a selected remediation site, will be examined.

3 Units

54 Lecture hours

ET 170**Groundwater Hydrology and Sampling**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to train individuals, who are working in or who seek employment in the environmental field, with an overview of the basic physical and chemical nature of groundwater aquifer systems, an overview of the techniques of sampling protocols for obtaining groundwater samples based on US EPA approved sampling protocols, and an introduction to groundwater pollution, remediation, and protection. Emphasis is placed on developing practical working knowledge of groundwater resources, groundwater protection, and groundwater remediation.

3 Units

54 Lecture hours

ET 181**Home Energy Management and Auditing (Same as AET 181)**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of home energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive home energy audit and energy management program. Emphasis is placed on the following topics: Appliances, Insulation, Designing/Remodeling, Electricity, Landscaping, Lighting, Space Heating and Cooling, Water Heating, Doors/Windows/Skylights, and Home Energy Audits.

3 Units

54 Lecture hours

ET 182**Industrial Energy Management and Auditing (Same as AET 182)**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of the industrial energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive energy audit and energy management program. Emphasis is placed on the following topics: Types of Energy Audits, Energy Management and Cost, Benchmarking, Energy Performance, Energy Use Requirements, Maximizing System Efficiencies, Optimizing Energy Input Requirements, Fuel and Energy Substitution and Energy Audit Instruments.

3 Units

54 Lecture hours

ET 200**Hazardous Materials Management Applications**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or who seek employment in the hazardous materials management field, with a general overview of the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials. The course will emphasize compliance with Department of Transportation, OSHA Hazard Communications, SARA Title III Community Right-to-Know, Underground Tank, Asbestos, Proposition 65, and Air Toxics Regulations.

4 Units

54 Lecture hours

54 Lab hours

ET 230**Safety and Emergency Response**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or who seek employment in the environmental technology field, with hands-on instruction in safety and emergency response to chemical and physical exposures at hazardous waste sites. Topics include: hazard

identification, emergency response planning, proper use and selection of PPE, site control and evaluation, handling drums and containers, field sampling and air monitoring, proper use of instruments, confined spaces, emergency response including field exercises in the use of APR and SCBA. This course satisfies the requirements for 40 hour HAZ-WOPER TRAINING under OSHA (1910.120) and confined space entry training under OSHA (1910.146).

4 Units

54 Lecture hours

54 Lab hours

ET 240

Solid Waste Management Applications

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to provide individuals, who are working in or seek employment in the solid waste management field, with an overview of the solid waste industry and its components. Emphasis is placed on the various aspects of integrated waste management including: waste prevention, recycling, composting, incineration, landfilling, environmental sampling and monitoring, facility siting and permitting, and compliance with environmental, health and safety regulations.

4 Units

54 Lecture hours

54 Lab hours

ET 250

Fundamentals of Safety and Health I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment, ET 230, or working in General Industry, Construction, or in the Safety and Health Field

Transfers to: CSU

This course is designed to introduce the student to the field of Occupational Safety and Health and Program Development.

Topics include instruction on Federal, State and Local Agency legislation and the application of Labor and Occupational Safety and Health regulations. The course content also includes familiarization with Workers Compensation/General Liability Insurance, Accident Investigation Techniques, Industrial Hygiene, Ergonomics, Fire Prevention, Site and Facility Auditing, Systems Safety and Program Development. This course is for individuals that are pursuing a degree in Environmental Technology, Safety & Health or for working supervisors, professionals or business owners that are responsible for worker safety or placement

of workers compensation/general liability insurance. This course is a requirement for AS and/or Certificate of Achievement in Environmental Technologies with specialization in health and safety.

3 Units

54 Lecture hours

ET 251

Fundamentals of Safety and Health II

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ET 230

Transfers to: CSU

This course is designed to introduce the student to the supervisory and management functions of Occupational Safety and Health and Risk Management. Topics include a review of Federal, State and Local Agency Legislation, Labor and Occupational Safety and Health regulations and Workers Compensation insurance. The course content will focus on the Elements of Safety and Health Program Development, Behavior Based Safety, Workplace Violence, Terrorism Preparedness, Hazardous Materials and Waste Management, Application of occupational safety and health design/compliance, regulations and development of the Safety and health and Loss Prevention Program (Policy through QA/QC).

This course is for individuals that are pursuing a degree in Environmental Technology, a Safety & Health Certificate and the working professional or business owner responsible for worker safety or Risk Management.

3 Units

54 Lecture hours

ET 260

Environmental Sampling and Analysis

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; BIOL 120; BIOL 120L; CHEM 110

Transfers to: CSU

This course provides an overview of the techniques of sampling protocols for obtaining soil, air, surface water, and groundwater samples based on the U.S. EPA approved sampling protocols. In the lecture, emphasis is placed on the aspects of the procurement of the samples through the EPA approved standard operating procedures and practices. In the laboratory, the student will gain practical knowledge and skills for the appropriate collection and handling of environmental samples.

4 Units

54 Lecture hours

54 Lab hours

ET 270

Wastewater Treatment Plant Operations I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This is the initial course of a series of water treatment courses designed to train individuals, who are working in or who seek employment in the waste water treatment field, in the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. Information presented includes the role and responsibilities of a treatment plant operator, an explanation of why wastes must be treated, and detailed descriptions of the equipment and processes used in a wastewater treatment plant. Students will learn to operate and maintain racks, screens, comminutors, sedimentation tanks, trickling filters, rotating biological contactors, package activated sludge plants, oxidation ditches, ponds, and chlorination facilities. Students will also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control.

3 Units

54 Lecture hours

ET 271

Wastewater Treatment Plant Operations II

Prerequisite: ET 270

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This is the second course of a series of water treatment courses designed to train individuals, who are working in or who seek employment in the waste water treatment field, with the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. Information presented includes: conventional activated sludge processes, sludge digestion and solids handling, effluent disposal, plant safety and good housekeeping, plant and equipment maintenance, analysis and presentation of data, and records and report writing. Students will also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control.

3 Units

54 Lecture hours

ET 272**Advanced Wastewater Treatment**

Prerequisite: ET 271

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This is the third course in a series of water treatment courses designed to train individuals who are working in or who seek employment in the waste water treatment field in the practical aspects of operating and maintaining wastewater treatment plants and emphasizes the use of safe practices and procedures. Topics presented include: detailed descriptions of the equipment and advanced treatment processes used for odor control, pure oxygen activated sludge treatment, solids removal from secondary effluents, residual solids management, enhanced biological control including nitrogen and phosphorus removal, and wastewater reclamation. Students will learn to operate and maintain treatment plant instrumentation equipment and systems. Additionally, students will also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control. This course focuses on actual operating procedures and teaches students to analyze and solve operational problems.

3 Units

54 Lecture hours

ET 273**Stormwater Management, Treatment and Controls**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course is designed to provide individuals, who are working in or are seeking employment in the industrial stormwater management field, with the skills necessary to manage stormwater activities at industrial sites. Such management activities would include the ability to: write stormwater plans, implement structural and non-structural best management practices, evaluate and design stormwater treatment systems, conduct laboratory testing, understand how to collect stormwater samples, evaluate low impact development methods, and understand the regulatory and political framework of stormwater management. Emphasis will be placed on the following topics: stormwater chemistry, water treatment, student designed industrial treatment systems, auditing for compliance, monitoring of the industrial effluent, interpretation of

laboratory results, and how to apply the data to achieve real reductions in effluent contaminated by industrial pollutants.

3 Units

54 Lecture hours

ET 274**Industrial Waste Water Treatment**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the water management field, with the practical aspects of operating and maintaining industrial waste water treatment plants. Emphasis is placed on the following topics: role of the industrial waste water treatment operator, types of industrial waste streams, industrial waste water regulations, sources of wastes and methods for preventing and minimizing wastes at the source, and industrial waste monitoring. The plant operations and maintenance topics that will be highlighted include the following: operating and maintaining flow measure equipment, preliminary treatment processes, physical-chemical treatment processes, pressure and gravity filters, physical treatment processes, treatment of metal waste streams, and safety procedures.

3 Units

54 Lecture hours

ET 275**Water Treatment**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the water management field, with the practical aspects of operating and maintaining water treatment plants. Topics will include: responsibilities of the water treatment plant operator, sources of water, reservoir management and intake structures, coagulation and flocculation, sedimentation and filtration, disinfection and corrosion control, and taste and odor control. Day to day operating procedures will be highlighted in this course and will consist of the following topics: daily operating procedures, regulation of flows, chemical use and handling, records and reports, plant maintenance, safety and security, emergency procedures, handling complaints, and energy conservation.

3 Units

54 Lecture hours

ET 276**Water Distribution**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the water management system, with the practical aspects of operating and maintaining water distribution systems. Topics include: role and duties of water distribution system operators, procedures for operating and maintaining clear wells and storage tanks, characteristics of distribution system facilities, operating and maintaining distribution systems, maintaining water quality, disinfecting water systems, and techniques for recognizing hazards and developing safe procedures and programs. Operators also learn to analyze and solve problems associated with operating a distribution system.

3 Units

54 Lecture hours

ET 280**Green Building Design Principles (Same as AET 280)**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course is designed to provide individuals, who are working in or seeking employment in the green building field, with an overview of the green building industry and its components. Specifically, this course will assist students in their preparation for the Leadership in Energy and Environmental Design Accredited Professional (LEED AP) Examination, which is the most recognized professional accreditation for green building in the nation. Emphasis is placed on the six categories of design that green buildings must address for LEED Certification: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design Process. Each of these categories will be studied, with a focus on the significance of each particular credit.

3 Units

54 Lecture hours

ET 290**Cooperative Work Experience/Internship for Environmental Technology Related Fields**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of environmental technology and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 hours

ET 299

Directed Study: Environmental Technology

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

FABRICATION

Division of Career & Technical Education

FABR 040

Introduction to Fabrication Processes

Advisory: READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment; TCED 090

This is a beginning level course designed to introduce students to various techniques, processes and technologies used in the Fabrication industry. This course will develop skills necessary for translating dimensional information from a shop drawing or blueprint to metallic materials used for production of finished parts and assemblies. Topics covered in this class will include basic blueprint reading, measurement and measuring tools, layout, metal cutting, drilling and tapping, and metal forming. Emphasis will be placed on shop safety and safe and proper use of equipment, tools and materials.

2 Units

18 Lecture hours

54 Lab hours

FABR 045

Intermediate Fabrication Processes

Advisory: READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment; FABR 040

This is a beginning level course designed to broaden the students' skills and knowledge of metal fabrication techniques. This course will introduce students to basic hand tools and power tools commonly used in the metal fabrication industry. Topics covered in this class will include structural fabrication, tube bending, stair layout and construction, and fabrication of components from sheet metal. Emphasis will be placed on shop safety and on developing proper working procedures.

2 Units

18 Lecture hours

54 Lab hours

FINANCE

Division of Business

FIN 101

Introduction to Financial Planning

Advisory: READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment
Transfers to: CSU

This course provides an overview of the fundamentals of financial planning. Course topics include the financial planning process, managing

assets, managing credit, managing investments in stocks, bonds, mutual funds, insurance, and real estate, and retirement and estate planning. This course is designed for those interested in learning about personal financial planning and/or entering the field of financial planning. This course is an integrative approach to personal finance focusing on practical financial decision-making as well as the social, psychological, and physiological contexts in which those decisions are made.

3 Units

54 Lecture hours

FIRE ACADEMY

Division of Public Safety

FAC 043

Advanced Fire Course

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This is a variable format (2-40 Hours of Lecture; 2-40 Hours of Lab) course designed to keep Fire Service personnel informed of new laws and fire codes, current prevention procedures, recent developments in hazardous materials, stress on the firefighter, technology, community relations, physical fitness & wellness and other refresher training as may be necessary.

0.074 to 1.482 Units

2 to 40 Lecture hours

2 to 40 Lab hours

FAC 118

Firefighter I, Basic Fire Academy

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; FTEC 101; FTEC 102; FTEC 103; FTEC 104; FTEC 105; FTEC 106; EMT 093

Advisory: BIOL 125

Transfers to: CSU

This course is designed for recently employed firefighters and other interested students. Topics covered include organization of the public and private fire service, characteristics and behavior of fire, fire hazards and firefighter safety, extinguishing agents and related extinguishing equipment, fire protection systems and water supply, incident command system, confine space awareness, building construction and assemblies, basic firefighting tactics and strategy, fire prevention, hazardous materials, emergency care, wild land firefighting, Rapid Intervention, Rescue Systems and physical fitness. This course meets the State Board of Fire Services requirements for designation

as a "California Fire fighter I Accredited Academy" (ARA or Accredited Regional Academy by the California State Fire Marshal). Students who complete this course also receive California certification in Vehicle Extrication, Fire Control I & II, Hazardous Materials First Responder Operational, Confine Space Awareness, Rescue Systems I, S-110, S-130, S-190, Rapid Intervention Crew Tactics and ICS -200. This course requires completion of a medical physical examination and includes arduous physical activity.

18 Units
126 Lecture hours
616 Lab hours

FAC 120

Firefighter I

Basic Fire Academy with EMT

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; FTEC 101; FTEC 102; FTEC 103; FTEC 104; FTEC 105; FTEC 106
Advisory: BIOL 125

Transfers to: CSU

This course is designed for recently employed firefighters and other interested students. Topics covered include organization of the public and private fire service, characteristics and behavior of fire, fire hazards and firefighter safety, extinguishing agents and related extinguishing equipment, fire protection systems and water supply, incident command system, confine space awareness, building construction and assemblies, basic firefighting tactics and strategy, fire prevention, hazardous materials, emergency care, wild land firefighting, Rapid Intervention, Rescue Systems and physical fitness. This course meets the State Board of Fire Services requirements for designation as a "California Fire fighter I Accredited Academy" (ARA or Accredited Regional Academy by the California State Fire Marshal). Students who complete this course also receive California certification as an Emergency Medical Technician, in Vehicle Extrication, Fire Control I & II, Hazardous Materials First Responder Operational, Confine Space Awareness, Rescue Systems I, S-110, S-130, S-190, Trench Rescue, Rapid Intervention Crew Tactics, Firefighter Safety and Survival and ICS -200. This course requires completion of a medical physical examination and includes arduous physical activity.

22 Units
136 Lecture hours
783 Lab hours

FAC 4305

Hazardous Material Identification

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is for fire department personnel and other interested students that want to learn about the current laws and regulations pertaining to the labeling of hazardous materials and the UN Hazardous Classifications. The National Fire Protection Association (NFPA) guidelines and the Department of Transportation (DOT) rules and regulations will be presented in this class.

0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4310

Management Orientation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for fire department personnel and other interested students who seek information related to fire service management. The organizational structure of a fire department, fire officer responsibilities and establishing command at the scene of an emergency will be discussed.

0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4315

Arson Scene Investigation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is for fire department personnel and other interested students as it provides an introduction to the practices and procedures of fire scene investigation. The scientific method of scene investigation, providing a systematic framework for investigations, is stressed. Determining the point of origin, establishing the cause and recognition, and preservation of evidence will be included. Current legally acceptable methods in compliance with the standards of NFPA 921 "Guide to Fire Explosion Investigations" are stressed throughout the course.

0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4326

Paramedic Support Operations

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for fire department personnel and other

interested students who may assist paramedic units at the scene of emergencies. Patient preparation, stabilization and paramedic coordination will be reviewed. Common terminology will be included. This course meets the Los Angeles County Emergency Medical Technician requirements for recertification as an Emergency Medical Technician in the State of California.

0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4327

Fire Fighting Operations, Structures

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for fire department personnel and other emergency responders who seek additional coursework in fighting structure fires. A review of basic firefighting tactics and strategy for occupancies such as dwellings, commercial occupancies, industrial occupancies, and special occupancies will be included. Emphasis will be placed on safety to personnel and crew cohesiveness.

0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4328

Fire Fighting Operations, Mobile Units

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for fire department personnel and other emergency responders who seek additional coursework in fighting fires where mobile units are burning. A review of basic firefighting tactics and strategy specifically for cars, trucks, buses, ships, planes and trains will be discussed. This course will also present information related to terrorist acts while utilizing mobile equipment. Emphasis will be placed on safety to personnel.

0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4329

Fire Fighting Operations, Hazardous Materials

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for fire department personnel and other interested students who seek information related to response to fires where hazardous materials are present. A basic review of hazard clas-

sifications, response concerns when hazardous materials are present, and responder safety is discussed. This course will also present basic response issues related to terrorist acts involving hazardous materials.
0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4330

Driving Techniques and Certification

Prerequisite: Appropriate DMV driver's permit (when required)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to train firefighters and other interested students to drive emergency response vehicles that include fire engines, fire trucks and ambulances under emergency and non-emergency conditions. This course will include classroom discussion, driving demonstrations, and driving practice. This course may require students to provide the necessary driving permits needed through the DMV prior to class participation.
0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4331

Pumping Techniques and Certification

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to train students to operate fire apparatus under emergency and non-emergency conditions. It integrates the physical properties of modern fire apparatus suppression systems, pump theory and operation, hydraulic calculations, water supply considerations, relay pumping principles, water shuttle operations, foam systems operation and apparatus maintenance and testing. This course will include classroom discussion, pumping demonstrations, and pumping practice.
0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4335

Special Equipment Familiarization

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is intended for fire department personnel and other interested students who want to learn more about specialized equipment used in today's fire service. Such equipment as the jaws of life,

compressor units, lighting units, life-saving equipment and command equipment will be included.
0.074 to 1.482 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 4344

Fire Instructor 1A

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is the first of a two-course series designed to prepare Fire Service or other interested students to become a California Certified Fire Instructor. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. Topics covered include Occupational Analysis, course outline, concepts of learning, levels of instruction, behavioral objectives, lesson plan development, psychology of learning and instructor evaluation. Student teaching demonstrations are required of all.
2 Units
40 Lecture hours

FAC 4345

Fire Instructor 1B

Prerequisite: FAC 4344

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

State Board of Fire Services accredited courses in fire service instructional techniques, including methods of instruction, use of audio/visual equipment, employment of instructional aids, test construction, teaching demonstrations and reducing failure rates. This course applies to California Fire Service Training and Educational System certifications.
0.167 to 0.75 Units
8 to 40 Lecture hours

FAC 4346

Fire Prevention 1A

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is the first of a two-course series designed to prepare Fire Service or other interested students to become a California Certified Fire Prevention Officer. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. Topics covered provide broad, technical overview of fire prevention codes, ordinances, inspection practices and key hazards including responsibilities and authority, occupancy classification & types

of construction, Egress requirements, fire resistive assemblies, general fire safety provisions, principles and procedures for fire inspections.
2 Units
40 Lecture hours

FAC 4347

Fire Prevention 1B

Prerequisite: FAC 4346

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is a second in the series of courses required for Fire Officer Certification as it relates to Fire Prevention. It is also designed for Fire Service personnel or other interested students to become a California Certified Fire Prevention Officer. This course focuses on the special hazards associated with flammable and combustible liquids and gases. Some topics of discussion include bulk storage and handling, transportation of flammable gases and liquids and more.
2 Units
40 Lecture hours

FAC 4348

Fire Investigation I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to prepare Fire Service or other interested students to become a California Certified Fire Investigator. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course provides the participants with an introduction to the basics of fire scene investigation. The focus of the course is to provide information on fire scene indicators and to determine the fire's origin.
2 Units
40 Lecture hours

FAC 4349

Fire Command 1A

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to prepare Fire Service or other interested students to become a California Certified Fire Officer. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course provides instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer, fire behavior, fire ground resources, operations and management.
2 Units
40 Lecture hours

FAC 4350**Fire Command 1B**

Prerequisite: FAC 4349

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is a continuation of Fire Command 1A and is designed to prepare Fire Service or other interested students to become a California Certified Fire Officer. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course provides the student with information on tactics, strategies and scene management for multi-casualty incidents, hazardous materials incidents and wildland fires. Each student also has the opportunity to increase his or her knowledge and skills by handling initial operations at these types of incidents through simulation and class activities.

2 Units

40 Lecture hours

FAC 4351**Fire Management I**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This Fire Management course is designed to prepare Fire Service or other interested students to become a California Certified Fire Prevention Officer with emphasis on supervisory skills. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts, practices utilized, and include discussions about decision making, time management, leadership styles, personnel evaluations and counseling guidelines.

2 Units

40 Lecture hours

FAC 4353**Automatic External Defibrillator**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course provides training in the use of an automated external defibrillator. This course meets the requirements for certification in AED (automated external defibrillation) usage through the American Heart Association and is for the lay rescuer and first responder. This course is designed for the individual working in the public health and safety field. Offered on a pass/no pass basis.

0.2 Units

6 Lab hours

FAC 4361**Fire Command 1C I-Zone Fire Fighting for Company Officers**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This is a State Board of Fire Services accredited course in I-Zone firefighting and elements of the Incident Command System (ICS) for Company Fire Officers. This addresses the three elements of wild land fire behavior including fuel, weather and topography and fundamental elements of size-up as they relate to I-Zone firefighting. The duties and responsibilities of a Strike Team Company Officer and procedures for structure triage and protection are also addressed. This course is designed for firefighting personnel and other interested students who seek certification as a California State Certified "Fire Officer."

2 Units

36 Lecture hours

FAC 4362**Incident Command System (ICS)200**

Advisory: READ 043 or appropriate assessment

This course is designed for students who desire a basic introduction to the Incident Command System (ICS) for fire ground operations. This course provides the foundation for students to actively take part as a member of team responding to a fire incident. Instruction will be provided in the principles and features of ICS, including an organizational overview, incident facilities, incident resources, and common responsibilities.

0.2 Units

12 Lecture hours

FIRE TECHNOLOGY

Division of Public Safety

FTEC 044**Physical Fitness and Ability for the Firefighter**

Prerequisite: Student must be able to lift 75lbs., drag a 150 pound "drag dummy", and use a sledge hammer in completion of a physical abilities test.

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to give in-service firefighters and interested students information about conditioning and fire department physical ability test designs and will include manipulative drills in order to be successful in passing California PAT's (Physical Abilities Tests). This course will provide information on the most recently developed tests in Southern California including the CPAT

(Candidate Physical Abilities Test) and the Biddle (Biddle and Associate Validated Test). Students will learn about firefighter wellness programs, review basic nutrition and current NFPA (National Fire Protection Association) standards pertaining to firefighter health and safety. Students must be able to perform basic firefighter activities including climbing, using sledge hammers, dragging 150lb dummies and wearing a self-contained breathing apparatus.

3 Units

36 Lecture hours

54 Lab hours

FTEC 045**Firefighter Entrance Examination Techniques**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to prepare Fire Technology or other interested students to take a firefighter's examination. Topics covered include a review of firefighter duties and the requirements of a firefighter, employment requirements in the fire service and the hiring process. Resumes, fire department written examinations, oral interviews, and other related aspects will be discussed.

3 Units

54 Lecture hours

FTEC 101**Fire Protection Organization**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides Fire Technology or other interested students with an overview of fire protection issues. Included will be an introduction to the philosophy and history of fire protection and fire service. The organization and function of public and private fire protection services, the laws and regulations affecting fire service and the role of fire departments as part of local government will be explored. Basic fire chemistry, fire protection systems, firefighting strategies and possible career opportunities in fire related fields will also be addressed.

3 Units

54 Lecture hours

FTEC 102**Principles of Fire & Emergency Services Safety & Survival**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course introduces the Fire Technology or other interested students to the basic principles and history related to the national firefighter

life safety initiatives, focusing on the need for cultural and behavior changes throughout the emergency services. This course has been updated to meet the National Fire and Emergency Services Higher Education objectives as it pertains to firefighter safety and survival techniques used in today's fire service.

3 Units

54 Lecture hours

FTEC 103

Fire Behavior and Combustion

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides Fire Technology or other interested students with an exploration of theories and fundamentals of how and why fires start, spread, and how they are controlled. An in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques will be explored.

3 Units

54 Lecture hours

FTEC 104

Fire Prevention Technology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to provide Fire Technology or other interested students with fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

3 Units

54 Lecture hours

FTEC 105

Building Construction for Fire Protection

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the Fire Technology or other interested students with an understanding of the essential components used in building construction that directly relates to fire safety. The elements of construction and design of structures, factors when inspecting buildings, preplanning fire operations, and operating at fires will be discussed. The development and evolution of building and fire codes will be studied in relation-

ship to past fires in residential, commercial, and industrial occupancies.

3 Units

54 Lecture hours

FTEC 106

Fire Protection Equipment and Systems

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the Fire Technology student with information pertaining to the design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.

3 Units

54 Lecture hours

FTEC 107

Hazardous Materials I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides fire technology or other interested students with information pertaining to the first responder role when dealing with hazardous materials operations. Hazardous materials decontamination procedures will also be discussed. Classification of hazardous materials and National Fire Protection Association standards (NFPA 472) will be addressed.

3 Units

54 Lecture hours

FTEC 108

Hazardous Materials II

Prerequisite: FTEC 107

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the fire technology or other interested student with information pertaining to the handling, identification, firefighting practices, and the explosive hazards confronted with during a hazardous materials response. The role of a Hazardous Material Technician and Specialist will be discussed. The types of hazardous materials that could be used during a terrorism event will be covered.

3 Units

54 Lecture hours

FTEC 109

Fire Fighting Tactics and Strategy

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

This course provides the fire technology or other interested students

with information pertaining to the elements of the incident management system, evaluation of information management and critical incident factors including control of incident communications, basic strategy decisions, and the development of a tactical plan. Basic current fire ground strategies will also be explored in this course.

3 Units

54 Lecture hours

FTEC 110

Rescue Practices

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the Fire Technology or other interested students with a better understanding of rescue problems and techniques in the fire service field. Topics covered include emergency rescue equipment, toxic gases, chemicals, diseases, radiation hazards, and care of victims. Students will become prepared for emergency childbirths, respiration and resuscitation, auto extrication, and other emergency conditions throughout the course.

3 Units

54 Lecture hours

FTEC 111

Fire Hydraulics

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This course provides the Fire Technology student with information applicable to fire service hydraulics, specifically pertaining to fire hose, friction loss and calculations for gallons per minute (GPM) on the fire ground. The student will study fire ground hydraulic formulas used to calculate needed fire flow for residential and commercial structures.

3 Units

54 Lecture hours

FTEC 112

Fire Apparatus and Equipment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the fire technology or other interested students with information pertaining to the design and operation of fire department apparatus. This includes components such as the engine, pump and drive train. Basic hydraulic calculations for operation and safe vehicle use will also be discussed. Topics addressed include the different types of fire

apparatus and their function including wildland firefighting apparatus and municipal fire apparatus.

3 Units

54 Lecture hours

FTEC 114

Fire Investigation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the Fire Technology or other interested students with an understanding of determining causes of fires (accidental, suspicious and incendiary). Topics covered include arson laws, field note taking, and incendiaryism. Also addressed are the recognition and preserving of evidence, the interviewing of witnesses and suspects, arrest and detention procedures, court demeanor and the giving of court testimony.

3 Units

54 Lecture hours

FTEC 117

Fire Service Management, Safety and Wellness

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for fire technology majors to provide the student with the concepts, theories and principles of fire service management. Emphasis is placed on the distinctions between management, supervision and leadership. Fire service stress and safety management will be discussed and the national fire service standards will be presented.

3 Units

54 Lecture hours

FTEC 121

Emergency Response

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is intended for students that seek a better understanding of the role and responsibilities of a first responder. This class also meets the State of California Title 22 requirements pertinent to CPR, First Aid and AED (automatic external defibrillation) training as it relates to the EMT (Emergency Medical Technician). This course will also certify the student in CPR for the healthcare professional.

3 Units

36 Lecture hours

54 Lab hours

FTEC 150

Truck Company Operations

Prerequisite: Firefighter 1 certification or completion of a CSFM approved Fire Academy

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is for veteran firefighters or other interested students that want to enhance their knowledge and ability as it pertains to the fire ground operations associated with truck company tactics and strategy. Basic roof construction, vertical and horizontal ventilation, forcible entry, positive and negative ventilation, search and rescue, thermal imaging technology, firefighter safety and survival, rapid intervention tactics, elevator rescue and related truck company operations will be discussed.

2 Units

20 Lecture hours

60 Lab hours

FTEC 290

Cooperative Work Experience/Internship for Fire Technology Related Fields

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in the Fire Technology field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Fire Technology and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of fire technology and have completed or enrolled in the appropriate coursework." Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other

FTEC 299

Directed Study: Fire Technology

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0

grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

FIRST YEAR SEMINAR

Division of Library Science

FYS 101

Beyond Words: Visual and Performing Arts in Action

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

This seminar course is designed to introduce first-year students to the spirit of academic excellence and intellectual curiosity that lies at the heart of learning. All First-Year Seminar courses explore a common selected theme in depth. This seminar course will approach the selected theme as a conduit for understanding the visual and performing arts. FYS 101 will examine the artist's use of an abstracted language that moves beyond words to the visual, aural, and kinesthetic. Students are invited to explore creativity, innovation, self-expression, imagination, close observation, introspection, and inquisitiveness as artistic responses to the world around us. This seminar will then examine how visual and performing artists give shape to these responses by applying skill and ingenuity. Through inquiry-based instruction and active learning, students develop into self-directed problem-solvers. Coursework will build throughout the semester toward a culminating project in a variety of media. Through presentations, guest

speakers, and field trips, students will be exposed to professions and fields of study in dance, design, film, music, theater, and visual art.

3 Units

54 Lecture hours

FYS 102

Business and the Cyber Future

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

This seminar course is designed to introduce first-year students to the spirit of academic excellence and intellectual curiosity that lies at the heart of learning. All First-Year Seminar courses explore a theme in depth. This seminar course considers the selected theme through the lens of business principles. FYS 102 will explore concepts, strategies, and practices of management, marketing, finance, accounting, information technology, logistics, and human resources. Through inquiry-based instruction and active learning, students develop into self-directed problem-solvers. Coursework will build throughout the semester toward a culminating project in various media. Through presentations, guest speakers, and field trips, students will be exposed to professions and fields of study in business and the cyber future.

3 Units

54 Lecture hours

FYS 103

Science in Society

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

This seminar course is designed to introduce first-year students to the spirit of academic excellence and intellectual curiosity that lies at the heart of learning. All First-Year Seminar courses explore a theme in depth. FYS 103 will explore the selected theme through the lens of the natural sciences, their effects on society, and how the pursuit of science has been influenced by social forces. Through inquiry-based instruction and active learning, students develop into self-directed problem-solvers. Coursework will build throughout the semester toward a culminating project in various media. Through presentations, guest speakers, and field trips, students will be exposed to professions and fields of study in the natural sciences.

3 Units

54 Lecture hours

FYS 104

Understanding the SELFie: Diversity and Human Experiences

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

This seminar course is designed to introduce first-year students to the spirit of academic excellence and intellectual curiosity that lies at the heart of learning. All First-Year Seminar courses explore a common selected theme in depth. This seminar course will approach the selected theme as a conduit for understanding diversity and human experiences. FYS 104 will explore major themes, problems, theories, and ideologies from both past and present. This seminar encourages student inquiry and analysis into subject matter which continues to shape their lives today. This course challenges students to utilize primary skills found in each discipline in order to explain human experiences, examine historical and contemporary theories, and facilitate their contributions to their communities at large. Through inquiry-based instruction and active learning, students develop into self-directed problem-solvers. Coursework will build throughout the semester toward a culminating project in various media. Through presentations, guest speakers, and field trips, students will be exposed to professions and fields of study in behavioral and social sciences.

3 Units

54 Lecture hours

FYS 105

Voices, Ideas, and the Power of Language

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

This seminar course is designed to introduce first-year students to the spirit of academic excellence and intellectual curiosity that lies at the heart of learning. All First-Year Seminar courses explore a theme in depth. This seminar course will consider the selected theme through the lens of written and oral communication. FYS 105 will explore the etymology, analysis, and practice of how we use symbols in society, both orally and in writing. Through inquiry-based instruction and active learning, students develop into self-directed problem-solvers. Coursework will build throughout the semester toward a culminating project in various media. Through presenta-

tions, guest speakers, and field trips, students will be exposed to professions and fields of study in language, literature, and verbal expression.

3 Units

54 Lecture hours

FRENCH

Division of Communications & Languages

FR 101

French I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to the essentials of French language: reading, listening, speaking, and writing skills. Various facets of French-speaking culture (history, philosophy, and politics) will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those interested in learning to speak French as well as those seeking a degree in the French language.

4.5 Units

72 Lecture hours

27 Lab hours

FR 102

French II

Prerequisite: FR 101 or completion of 2 years of high school French with a grade of "C" or better

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: UC, CSU

This course is a continuation to the essentials of the French language: reading, listening, speaking, and writing skills. Various facets of French-speaking culture (history, philosophy, and politics) will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those interested in

continuing to learn to speak French as well as for those seeking a degree in the French language.

4.5 Units

72 Lecture hours

27 Lab hours

FR 201

French III

Prerequisite: FR 102 or completion of three years of high school French with a grade of "C" or better

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course stresses advanced conversational, reading, writing and translation skills. Emphasis is placed on understanding spoken French as well as on proficiency and accuracy in speaking French. The course will include an introduction to French literature as well as the reading of one novel in French to be determined by the instructor. Various facets of French culture, philosophy, politics and history will also be explored. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for students who wish to broaden their knowledge in French as well as for those seeking a degree in the French language.

4.5 Units

72 Lecture hours

27 Lab hours

FR 202

French IV

Prerequisite: FR 201 or completion of four years of high school French with a grade of "C" or better

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a continuation of FR 201. The course stresses advanced conversational, reading, writing, and translation skills. Emphasis is placed on understanding spoken French as well as on proficiency and accuracy in speaking French. The course will include an introduction to French literature as well as the reading of one novel in French to be determined by the instructor. In addition to classroom instruction, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on

vocabulary, grammar, and cultural practices. Various facets of French culture, philosophy, politics and history will also be explored. This course is intended for those interested in continuing to learn to speak French as well as for those seeking a degree in the French language.

4.5 Units

72 Lecture hours

27 Lab hours

FR 299

Directed Study: French

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

GEOGRAPHIC INFORMATION SYSTEMS

Division of Career & Technical Education

GIS 120

Introduction to Geographic Information Systems and Spatial Analysis

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; CIT 101

Transfers to: UC, CSU (Students will receive credit for only one of the following

courses: GIS 120 or GIS 220)

This course will introduce fundamental concepts of geographic information and spatial analysis, using industry standard geospatial application tools including geographic information systems (GIS), global positioning systems (GPS), cartography, remote sensing. Students will learn how to use geospatial technologies to perform spatial analysis in various disciplines including but not limited to business, public safety, health, politics, engineering, environmental, and social, biological and geological sciences. Students should have a working knowledge of Windows to be successful in this course.

4 Units

54 Lecture hours

54 Lab hours

GIS 130

Field Data Applications for GIS

Prerequisite: GIS 120

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides students and working professionals an expanded hands-on study on field data collection and methods using various geospatial technology including Global Positioning Systems (GPS) and sUAV (small unmanned aerial vehicles) for applications in Geographic Information Systems (GIS) and Remote Sensing (RMS). Experience in using field data collection enhances GIS technician and analyst employability. Students will research real world applications for public safety, public works, digital humanities and various sciences. This course will include off-campus field trips.

4 Units

54 Lecture hours

54 Lab hours

GIS 220

GIS Applications

Prerequisite: GIS 120

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; CIT 101

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: GIS 120 or GIS 220)

GIS 220 is designed for students to apply tools learned in GIS120 and introduces geoprocessing methods and new data sets to perform suitability models such as where to locate a new school, or how to determine concentrations of sales, pollutants or crimes within a community. In addition, field work is performed using Global Positioning System (GPS) including development of data dictionary, collection and processing and import into GIS. Additional data import includes CAD and tables.

Students are introduced to data delivery including layer and map packages and web mapping. Course may include field trips for student to visit industry meetings and attend off campus GPS exercise.

4 Units

54 Lecture hours

54 Lab hours

GIS 221

Cartography Design and Geographic Information Systems

Prerequisite: GIS 120

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

GIS plays an important role in almost any discipline and improves understanding of information through visual interpretation. This course is designed for students who want a better understanding and methods to effectively portray information spatially using conventions of patterns, colors and symbology. Students are introduced to the history of map interpretation, map projections, scales, map accuracy and layout conventions for publication in reports or large formats at emergency operations center. Course may include field trips for student to visit industry meetings and attend off campus GPS exercise.

4 Units

54 Lecture hours

54 Lab hours

GIS 222

Planning and Facilities Management Using GIS

Prerequisite: GIS 120

Corequisite: ENGT 150

Transfers to: CSU

This course uses ArcView GIS as an analytical and information tool for engineers, planners and facility managers to aid in the planning process, facilities management, systems evaluation, maintenance and asset management of large-scale facilities and infrastructure. Included is site management of facilities, city and regional planning, infrastructure based on topological features, evaluation based on growth indicators, population and economic projections, and use of GIS to support contemporary environmental rules and regulations. The course will include production of professional quality maps using ArcView as well as utilizing customized software.

3 Units

54 Lecture hours

36 Lab hours

GIS 230

Geographic Information Systems (GIS) in Environmental Technology

Prerequisite: GIS 120

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

In the environmental field today there are few jobs that do not require a background in Geographical Information Systems (GIS) and Global Positioning Systems (GPS). GIS is today widely applied in planning used for land use and growth management, environmental assessment to disaster response. This course integrates training in GIS with field data collection methods using GPS & Remote Sensing to collect environmental data used interpretively by GIS. Students should have a working knowledge of Windows to be successful in this course. This course may be taken once for credit towards the certificate and repeated once for credit to enhance student skills and proficiency level. Possible day field trips are scheduled to visit local industries and for GPS field work.

3 Units

36 Lecture hours

54 Lab hours

GIS 280

Geospatial Programming and Web Services

Prerequisite: GIS 120

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

Knowledge of a scripting language is a highly desired skill for the Geographic Information System (GIS) technician. This course teaches how to automate GIS tasks by applying industry common scripting language (Python, Model Builder, etc.). Advanced database management methodologies for spatial data analysis and development of GIS applications will be covered. Upon completion, students will effectively perform programming fundamentals providing easier interface for end users.

4 Units

54 Lecture hours

54 Lab hours

GIS 281

Crime Mapping and Analysis

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; CIT 101

Transfers to: CSU

Crime mapping plays an important role in almost any form of crime analysis and can improve our understanding of the important relationships between people, location, time, and crime. As a result,

Geographic information systems (GIS) has become an essential tool used by crime analysts to discover crime patterns, implement corrective strategies, optimize resource allocation and to develop crime prevention measures. Students will use ArcGIS to analyze crime series, conduct problem analysis, study crime trends, and address deployment issues as they relate to decision making in law enforcement. Students should have a working knowledge of Windows to be successful in this course.

4 Units

54 Lecture hours

54 Lab hours

GIS 290

Cooperative Work Experience/Internship for Geographic Information Systems Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of GIS and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

GIS 299

Directed Study in Geographic Information Systems

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Geographic Information Systems beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with

the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units
54 to 162 Lab hours

GEOGRAPHY

Division of Mathematics, Sciences, and Engineering

GEOG 101 (C-ID GEOG 110)

Introduction to Physical Geography

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: UC, CSU

Introduction to Physical Geography is a general education course that introduces students to the natural processes that shape the earth. Weather and climate, landforms and volcanoes, glaciers, rivers and coastal phenomena are among the topics explored. This course is for any student interested in the physical processes that shape land masses.

3 Units
54 Lecture hours

GEOG 101L (C-ID GEOG 111)

Introduction to Physical Geography Laboratory

Prerequisite/Corequisite: GEOG 101
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: UC, CSU

The physical geography laboratory is designed to acquaint students with the methods, techniques and procedures used by geographers in the study and analysis of the physical environment. Students will use maps, the internet and other tools to work with real-world geographic data. This course fulfills the general education lab requirement in physical sciences when taken with or after GEOG 101.

1 Unit
54 Lab hours

GEOG 102 (C-ID GEOG 120)

Introduction to Cultural Geography

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

Introduction to Cultural Geography is a general education course that

introduces students to the basic elements of culture. Population growth, migration, ethnicity, language, religion, folk and popular culture, and settlement forms are among the topics presented. This course may be of interest to students considering the field of elementary teaching, ecology, social science, or travel related vocations.

3 Units
54 Lecture hours

GEOG 103 (C-ID GEOG 125)

World Regional Geography

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

World Regional Geography explores the world's geographic regions, including Sub-Saharan Africa, North Africa, Southwest Asia, China, Southeast Asia, Middle America, South America, Japan, Europe, and Russia. This course describes the cultural, economic and environmental aspects of each of these geographic realms. It provides a geographic perspective that will enhance global awareness and geographic literacy.

3 Units
54 Lecture hours

GEOG 299

Directed Study: Geography

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not

accumulate more than a total of nine (9) units college wide.

1 to 3 Units
54 to 162 Lab hours

GEOG 310

Environmental Geography

Prerequisite: ENGL 201 or ENGL 201H, and GEOG 101

This upper division General Education course is designed for students pursuing a Bachelor's of Science degree in Automotive Technology, and is open to all students who have successfully completed the requirements to enroll in a 300-level course (junior-level status). This course will examine how the environment is impacted by human activity in different geographical regions and how the environment responds. Topics will include global cycles and systems of the air, water and soil, and the effects of human activity on the environment and living systems. Case studies will be used to investigate specific environmental issues.

3 Units
54 Lecture hours

GEOLOGY

Division of Mathematics, Sciences, and Engineering

GEOL 150 (C-ID GEOL 100)

Physical Geology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU

Physical Geology, which fulfills the physical science general education requirement, is an introduction to the principles of geology with emphasis on Earth processes. This course focuses on the internal structure and origin of the Earth and the processes that change and shape it. Earthquakes, Volcanoes, Oil, Beaches, Tsunamis, Rocks, Rivers, Glaciers, Plate Tectonics, Minerals, Continent and Mountain Building are among the many diverse topics that are explored.

3 Units
54 Lecture hours

GEOL 151 (C-ID GEOL 100L)

Physical Geology Laboratory

Prerequisite/Corequisite: GEOL 150
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU

Physical Geology Laboratory engages students with a "hands-on" review

of the principles presented in Geology 150 and their application to everyday life. Laboratory exercises will include (but are not limited to) the identification of minerals, igneous, metamorphic and sedimentary rocks, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of tectonic activity.

1 Unit
54 Lab hours

GEOL 152 (C-ID GEOL 110)

Historical Geology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to Earth's history and the life it supports. Subjects include geologic dating, global tectonics, stratigraphy, fossils, biological evolution, the planet's origin and the processes that have influenced paleogeography during the past 4.6 billion years.

3 Units
54 Lecture hours

GEOL 152L (C-ID GEOL 110L)

Historical Geology Lab

Prerequisite/Corequisite: GEOL 152
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU

This course is the laboratory component to an introduction to Earth's history and the life it supports. Subjects include geologic dating, plate tectonics, stratigraphy, fossils, biological evolution, the planet's origin and the processes that have influenced paleogeography during the past 4.6 billion years.

1 Units
54 Lab hours

GEOL 299

Directed Study: Geology

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing

depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units
54 to 162 Lab hours

GRAPHIC DESIGN

Division of Arts & Cultural Programs

GDSN 110

History of Graphic Design

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is a survey of historical developments in graphic design from the Industrial Revolution to the Digital Age. Students will analyze the development of graphic design, its origins as a CTE area and the influences of political, social and economic climates of the different historical periods. This course provides a historical framework for analysis of current and future trends in graphic design and explores various historical art and design movements in order to recognize and evaluate the contexts of fine art, design, and science.

3 Units
54 Lecture hours

GDSN 150

Typography

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285

Transfers to: UC, CSU

This course is for the student interested in the history, theory and practice of Typography as it applies to graphic design, advertising and other areas of design and visual communication. Students will learn and practice hand-rendered and mechanical aspects of Typography and how Typography attracts, informs, educates, inspires and creates retaining impressions and modifies human actions and behavior. Through

discussions, exercises, and projects, students will develop an understanding leading to the clearer interpretations of Typography and its role in human history, communication, design and art. Activities include the history and principles of typography, letter structure, typeface selection, fundamentals of typesetting and introductory typographic layout.

3 Units
36 Lecture hours
72 Lab hours

GDSN 151

Typographic Design

Prerequisite: GDSN 150

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034, NVOC 285

Transfers to: UC, CSU

This course is for the student interested in the theory and practice of letterforms and typography as they apply to graphic design, advertising and other areas of design and visual communication. Focus is on the compositional use of type as a principle design element and its relationship to issues of visual hierarchy, readability and page structure. Students continue their exploration of typography as an expressive visual form through typographic design projects.

3 Units
36 Lecture hours
72 Lab hours

GDSN 162

Introduction to Web Design:

User Experience Design (UX)

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285

Transfers to: CSU

This introductory Web Design class is a practical introduction for students interested in UX (user experience) and visual interface design and the challenges it poses for the Graphic Designer. Using Web Design applications (like Adobe Dreamweaver and Adobe Photoshop), students are introduced to the steps involved in creating a basic functional interactive website. Topics include aesthetic design considerations, front-end technology, interaction, UX, UI and CSS design, file optimization, and website principles and practices. For the student interested in a degree in Graphic Design or those interested in web design and interactive design.

3 Units
36 Lecture hours
72 Lab hours

GDSN 163

Intermediate Web Design:

Interactive Design

Prerequisite: GDSN 162

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or

appropriate assessment; NVOC 285
Transfers to: CSU

Focusing on usability, this intermediate class offers broader and more advanced instruction into the 'front-end' visual design and aesthetics of interactive media as well as the technical and design requirements of designing a fully functional website. Using intermediate web design applications, like Adobe Dreamweaver, students are instructed in the techniques needed in increasing the quality of user experience (UX). Students continue to perfect the creation of a fully functional website using multifaceted applications. Topics include interactive design software, front-end aesthetics, technology, interaction, UX, UI and CSS design, the principles and elements of digital design and aesthetics, and interactive design business practices. This course is for the student interested in a degree or certificate in Graphic Design or those interested in expanding their knowledge of web design and interactive design.

3 Units
36 Lecture hours
72 Lab hours

GDSN 164

Digital Illustration Design

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285
Transfers to: CSU

This introductory course is an introduction to Graphic Design and uses vector software (Adobe Illustrator) as the principal digital tool. Topics include the Principles and Elements of Design, typography, color, shape stroke, illustration techniques, page layout design, as well as introductory critical concepts and professional practices employed by Graphic Designers. This course includes exercises, projects and portfolio building with an emphasis on professional standards. This course is for the student interested in a degree or certificate in Graphic Design or those interested in expanding their knowledge of web design and interactive design.

3 Units
36 Lecture hours
72 Lab hours

GDSN 165

Branding and Identity Design

Prerequisite: GDSN 164
Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285
Transfers to: CSU

This course is an exploration of Branding and Identity Design, a sub-discipline of Graphic Design. Topics include the research and development of Trademarks and Logos for

clients, the Principles and Elements of Design, typography, color, shape stroke, illustration techniques, page layout design, as well as intermediate and advanced critical concepts and professional practices employed by Graphic Designers. This course includes portfolio building with an emphasis on professional standards. This course is for the student interested in a degree or certificate in Graphic Design and those interested in 2-dimensional design and layout applications employed as tools by Graphic Designers.

3 Units
36 Lecture hours
72 Lab hours

GDSN 172

Publication Design

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285
Transfers to: CSU

This introductory course is an exploration of Publication Design, a sub-discipline of Graphic Design, and uses page-layout software (Adobe InDesign) as the principal digital tool. Topics include the Principles and Elements of Design, page composition, creative use of typography, color, imagery and the grid, discussion of output and pre-press considerations for print and digital distribution as well as current methods/styles, critical concepts and professional practices employed by Graphic Designers. This course includes portfolio building with an emphasis on professional standards.

3 Units
36 Lecture hours
72 Lab hours

GDSN 174

Packaging Design

Prerequisite: GDSN 164
Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285
Transfers to: UC, CSU

This introductory course is for any student interested in Packaging Design. Students will use software applications employed as tools by Graphic Designers for two-dimensional and three-dimensional surfaces. This course is a project-driven exploration of Packaging Design which is defined as stylized functional design for carrying, protecting, or presenting a product. Topics include: the Principles and Elements of Design, current technical and creative methods and styles employed by Package Designers as well as sustainability, advanced critical concepts and professional practices. This course includes

portfolio building with an emphasis on professional standards.

3 Units
36 Lecture hours
72 Lab hours

GDSN 178

Digital Imaging Design

Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285
Transfers to: UC, CSU

This introductory course is an introduction to Graphic Design and uses vector software (Adobe Photoshop) as the principal digital tool. Topics include the Principles and Elements of Design, typography, color, photo/raster/bitmapped-based scanning, image formats, optimization, retouching, adjustments, compositing, blending, color, conceptual and narrative techniques, current technical and creative methods and styles employed by Graphic Designers as well as introductory critical concepts and professional practices. This course includes exercises, projects and portfolio building with an emphasis on professional standards. This course is for the student interested in a degree or certificate in Graphic Design and those interested in 2-dimensional design and layout applications employed as tools by Graphic Designers.

3 Units
36 Lecture hours
72 Lab hours

GDSN 179

Advanced Digital Imaging Design

Prerequisite: GDSN 178
Advisory: READ 022 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment; NVOC 285
Transfers to: UC, CSU

This course is for the student interested in the theory and practice of letterforms and typography as they apply to graphic design, advertising and other areas of design and visual communication. Focus is on the compositional use of type as a principle design element and its relationship to issues of visual hierarchy, readability and page structure. Students continue their exploration of typography as an expressive visual form through typographic design projects.

3 Units
36 Lecture hours
72 Lab hours

GDSN 290

Cooperative Work Experience/Internship for Graphic Design Related Fields

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: CSU

This course supports and reinforces on-the-job training in business and

industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of graphic design and have completed or enrolled in the appropriate coursework. This course may be taken once and repeated for a maximum of 16 units. Contact the CWE office regarding re-enrollment procedures.

Student Unpaid Internship:

**1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours**

Student Paid Internship:

**1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.**

1-4 Units

3 Lecture hours

60- 300 Other hours

GDSN 299

Directed Study in Graphic Design

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Graphic Design beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

HEALTH SCIENCE

Division of Health Science & Nursing

HS 045

Math for the Health Care Professional

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or MATH 033B or appropriate assessment

This is a basic course that focuses on mathematical computation and application within the health care setting. Topics covered within this course include drug dosages, calculation of intake and output, weights and

measures, temperatures, intravenous infusion rates and conversions necessary for safe employment in the healthcare setting. This course is an elective course for students wanting to pursue a career in the healthcare industry.

1 Unit

18 Lecture hours

HS 050

Nurse Assistant Pre-Certification Training Course

Corequisite: HS 050L

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
This course is designed for students who have expressed an interest in an entry level nursing course. This course meets Title 22 regulations for taking care of the geriatric population in a long term care setting, utilizing skills in basic care, emergency care and communication. The Nurse Assistant Pre-Certification training course consists of 72 hours of classroom instruction. This course prepares the student to take the California State Certification Exam to become a Certified Nurse Assistant (CNA). After obtaining the state certification, the student may find employment in the acute care and/or long term care settings. The California Department of Health requires that students must be concurrently enrolled in both HS 050 and HS 050L, and pass both courses together. They cannot be taken individually for credit.

4 Units

72 Lecture hours

HS 050L

Nurse Assistant Pre-Certification Training Course Lab

Corequisite: HS 050

This course is designed for students who have expressed an interest in an entry level nursing course. This course meets Title 22 regulations for taking care of the geriatric population in a long term care setting, utilizing skills in basic care, emergency care and communication. The Nurse Assistant Pre-Certification training course lab consist of 135 hours of supervised clinical practice in long term facilities. This course prepares the student to take the California State Certification Exam to become a Certified Nurse Assistant (CNA). After obtaining the state certification, the student may find employment in the acute care and/or long term care settings. The California Department of Health requires that students must be concurrently enrolled in both HS 050 and HS 050L, and pass both courses together. They cannot be taken individually for credit.

2.5 Units

135 Lab hours

HS 051

Certified Nurse Assistant Acute Care Training Course

Prerequisite: HS 050, HS 050L, and California State CNA Certification

Corequisite: HS 051L

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed for students who are Certified Nurse Assistants that wish to learn the basic nursing skills and duties in the acute care setting with additional emphasis on the specialized acute care areas such as medical/surgical, orthopedics, pediatrics and obstetrics. The Certified Nurse Assistant Acute Care course consists of 27 hours classroom instruction. This course includes communication, patient observation, reporting and recording training as well as reinforcement of Certified Nurse Assistant basic-care procedures. The Department of Health Science and Nursing requires that students must be concurrently enrolled in both HS 051 and HS 051L, and pass both courses together. They cannot be taken individually for credit.

1.5 Units

27 Lecture hours

HS 051L

Certified Nurse Assistant Acute Care Training Course Lab

Prerequisite: HS 050, HS 050L, and California State CNA Certification

Corequisite: HS 051

This course is designed for students who are Certified Nurse Assistants that wish to learn the basic nursing skills and duties in the acute care setting with additional emphasis on the specialized acute care areas such as medical/surgical, orthopedics, pediatrics and obstetrics. The Certified Nurse Assistant Acute Care course lab consists of 54 hours of supervised clinical practice in an acute care facility. This course includes communication, patient observation, reporting and recording training as well as reinforcement of Certified Nurse Assistant basic-care procedures. The California Department of Health requires that students must be concurrently enrolled in both HS 051 and HS 051L, and pass both courses together. They cannot be taken individually for credit.

1 Unit

54 Lab hours

HS 052

Home Health Aide Training Course

Prerequisite: HS 050, HS 050L and California State CNA Certification

Corequisite: HS 052L

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed for students who are Certified Nurse Assistants that wish to learn how to provide personal care in the home care setting for those who are unable to do it for themselves and/or promote the recovery, safety and comfort of the patient. Additional emphasis on rehabilitative nursing care, family relationships and the impact of long-term illness on the family as well as the client will be included. The Home Health Aide training course consists of 27 hours classroom instruction. This course meets title 22 regulations for Home Health Aides training programs. The California Department of Health requires that students must be concurrently enrolled in both HS 052 and HS 052L, and pass both courses together. They cannot be taken individually for credit.

1.5 Units
27 Lecture hours

HS 052L

Home Health Aide Training Course Lab

Prerequisite: HS 050, HS 050L, and California State CNA Certification
Corequisite: HS 052

This course is designed for students who are Certified Nurse Assistants that wish to learn how to provide personal care in the home care setting for those who are unable to do it for themselves and/or promote the recovery, safety and comfort of the patient. Additional emphasis on rehabilitative nursing care, family relationships and the impact of long-term illness on the family as well as the client will be included. The Home Health Aide training course consists of 54 hours supervised clinical practice in either the Acute care or Skilled Nursing Facility. This course meets title 22 regulations for Home Health Aides training programs. The California Department of Health requires that students must be concurrently enrolled in both HS 052 and HS 052L, and pass both courses together. They cannot be taken individually for credit.

1 Unit
54 Lab hours

HS 054

Beginning Terminology for Healthcare Workers

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C

This course covers the basic knowledge and understanding of medical language, terminology, and basic human anatomy. The student will learn word parts, prefixes, suffixes, word roots and will review the body systems. Anatomical, physiological

and pathophysiological terms will also be defined. This is an entry-level course for students interested in the health care field and is highly recommended prior to enrolling in any health-related course.

3 Units
54 Lecture hours

HS 060

Health Science Core

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 033 or MATH 033B or appropriate assessment

This is a basic course which focuses on medical terminology, normal body structures and functions, the principles of nutrition, and the relationship of nutrition to health. It provides a strong foundation for all students entering the health care field. This course is a prerequisite for the Vocational Nursing Program.

5 Units
90 Lecture hours

HS 070

Introduction to Ambulatory Care Nursing

Prerequisite: Possess an unrestricted California RN license

This is an introductory level course to prepare the licensed RN to work in the ambulatory care nursing setting. This course includes classroom lecture and learning activities that provides the type of skills and competencies needed for the RN to work in outpatient care settings, such as clinics.

4.5 Units
81 Lecture hours

HEAT & FROST

Division of Career & Technical Education

HEFR 040

Insulation Industry Orientation

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators Industry. Topics include orientation to the trade, industry safety, job-site safety, insulation, pipe systems, OSHA, refinery safety, boom and scissor lift safety, and duct systems.

3 Units
40 Lecture hours
40 Lab hours

HEFR 041

Mechanical Piping Systems

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators Industry. Topics include insulation materials, techniques, finishes, piping systems, fireproofing, hand tools, fall protection, and equipment used in the field.

3 Units
40 Lecture hours
40 Lab hours

HEFR 042

Boiler Insulation

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators Industry. Topics include boilers, insulating techniques, stacks, breechings, hi-ribb lath insulation, finishing, ship-yard orientation, pen welding, safety, first-aid, confined space, and fittings.

3 Units
40 Lecture hours
40 Lab hours

HEFR 043

Construction Mathematics

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators Industry. Mathematical operations commonly used in the construction trade will be reviewed and applied. Topics include whole numbers, fractions, decimals, basic geometry functions, curves and angles, drawings, estimating, energy appraising, insulation certifications, and measurements.

3 Units
40 Lecture hours
40 Lab hours

HEFR 044**Mechanical Piping Insulation**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators industry. Topics include heat transfer, general insulating methods, materials, application of insulation materials, coatings, coverings for pipes and fittings, attachment methods, mold recognition and abatement, and finishing for pipes in various thermal ranges.

3 Units

40 Lecture hours

40 Lab hours

HEFR 045**Foam and Firestopping Insulation**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators Industry. Topics include metal cutting, fittings, band saws, foam materials, spray equipment operations, firestopping insulation, and maintenance and repair of foam application equipment.

3 Units

40 Lecture hours

40 Lab hours

HEFR 046**Blueprint Reading**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators industry. Topics include introduction to blueprint reading, general arrangement, symbols, industry standards, insulation drawings, isometric drawings, industry certifications, and shop drawings.

3 Units

40 Lecture hours

40 Lab hours

HEFR 047**Prefabricated Buildings**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the Heat and Frost Insulators Industry. Topics include insulation, design of walls, prefabricated industry panels, prefabricated metal buildings, hazardous materials, and storage tank insulation.

3 Units

40 Lecture hours

40 Lab hours

HEFR 048**Firestop Applications**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Insulation and Firestop Industry. Topics include layout, fabrication, and installation procedures for firestopping systems on mechanical, electrical, and plumbing penetrations on maintenance and repair.

3 Units

40 Lecture hours

40 Lab hours

HEFR 049**Advanced Life Safety Firestop Application**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprentice; HEFR 040; HEFR 048

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the Insulation and Firestop Industry. Topics include advanced layout, advanced fabrication, and advanced installation procedures for firestopping systems on mechanical, electrical, and plumbing penetrations on maintenance and repair.

3 Units

40 Lecture hours

40 Lab hours

HEFR 290**Work Experience in Heat and Frost Insulator Apprenticeship**

Prerequisite: State Indentured Heat and Frost Insulator Union Apprenticeship
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides students the opportunity to work in the Heat and Frost Insulators apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Heat and Frost Insulator Joint Apprenticeship and Training Committee (J.A.T.C.). Students complete work experience hours at approved training sites. Students may take up to 16 units total across all Work Experience course offerings. Only one Work Experience course may be taken per semester.

1 to 4 Units

3 Lecture hours

75 to 225 Other hours

HEAVY EQUIPMENT TECHNOLOGY

Division of Career & Technical Education

HET 051**Outdoor Power Equipment Operation and Maintenance**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This is an introductory course designed to familiarize the student with the basic operation of a multitude of outdoor power equipment, such as garden tractors, lawn equipment, personal watercraft, portable generators, air compressors, pressure washers and many others that are powered by small displacement internal combustion engines. Students will learn tools and service equipment use and how to safely perform basic repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own equipment to complete required tasks. This course is designed to be a companion course to HET 052 and HET 053. Students are encouraged to complete all three courses in order to obtain a firm foundation in Outdoor Power Equipment.

4 Units

54 Lecture hours

54 Lab hours

HET 052**Outdoor Power Equipment Engine Repair**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment

This course is designed to provide the student with the skills required to repair the engines used in Outdoor Power Equipment. Emphasis is placed on problem diagnosis, service procedures, proper repair techniques, and machining operations. In addition, the students will learn tools and service equipment use and will have the opportunity to perform repair work on their own equipment to complete required tasks. This course is designed to be a companion course to HET 051 and HET 053. Students are encouraged to complete all three courses in order to obtain a firm foundation in Outdoor Power Equipment.

4 Units

54 Lecture hours

54 Lab hours

HET 053

Outdoor Power Equipment Engine Systems

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to provide the student with the skills required to repair the engine systems used in Outdoor Power Equipment. Emphasis is placed on problem diagnosis, service procedures and proper repair techniques of fuel, ignition, lubrication and cooling systems. In addition, the students will learn tools and service equipment use and will have the opportunity to perform repair work on their own equipment to complete required tasks. This course is designed to be a companion course to HET 051 and HET 052. Students are encouraged to complete all three courses in order to obtain a firm foundation in Outdoor Power Equipment.

4 Units

54 Lecture hours

54 Lab hours

HET 101

Introduction to Heavy Equipment Technology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is an introductory course designed to familiarize the student with the basic operation and maintenance of a multitude of systems commonly found on Heavy Equipment machinery. Students will learn the fundamentals of diesel engines, clutches, manual transmissions, torque converters, automatic transmissions, drive lines, steer and drive axles, various brake and hydraulic systems. In addition, the students will learn basic tools and equipment, and how to safely perform basic repairs and maintenance operations. This is the first course in a series of Heavy

Equipment Technology classes, and is designed for the student who wants to enter the field of Heavy Equipment Maintenance and Repair.

4 Units

54 Lecture hours

54 Lab hours

HET 106

Heavy Equipment Electrical Fundamentals

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This introductory course is designed to familiarize the student with the heavy equipment's electrical and electronic systems. Topics covered include fundamentals of electricity, basic circuits, schematics, symbols, diagrams, DVOM, graphing multimeter and oscilloscope usage, wire repair techniques, electrical components, semiconductors (including IC), battery, charging, starting, accessory, and instrumentation systems. Demonstrations using the A-Tech circuit boards will be used to illustrate electrical principles, including strategy-based diagnostics.

4 Units

54 Lecture hours

54 Lab hours

HET 107

Heavy Equipment Operation, Performance Testing and Adjusting

Prerequisite: HET 101; HET 106

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to familiarize the students with California and Federal OSHA Safety Regulation for the General Industry Workplace, and a variety of material handling and construction equipment including forklifts, skid steer loaders, and front end loaders/backhoes. Topics covered include rules and regulations, worksite material storage and handling, fire protection and prevention, hand and power tools, welding and cutting, electrical safety, and fall protection. Machine specific terminology, pre-operational inspection, principles of balance and stability, capacity and load handling, refueling, hydraulic power, job site and pedestrian safety will also be covered. Students will learn how to safely verify the machine performance and how to perform minor adjustments of various subsystems if needed. Upon successful completion of this course and forklift operation examination the student will receive a Certificate of Completion and wallet card for Forklift Operator Safety Training as required by OSHA 1910.178(l) and CAL/OSHA Title 8 (Section 3669),

which is good for three years, and a 10-hour OSHA Training Certificate of Completion, which is good for life.

4 Units

54 Lecture hours

54 Lab hours

HET 140

Heavy Equipment Electrical Diagnostics

Prerequisite: HET 107

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to familiarize the student with the heavy equipment's electrical and electronic systems. Topics include review of electrical theory, circuit faults, electrical and electronic components usage and diagnostics, computers, sensors, actuators, and data communications. A-Tech simulator boards will be used to illustrate different component functions. In addition, the students will be introduced to the strategy based diagnostics, including troubleshooting electrical problems using live equipment.

4 Units

54 Lecture hours

54 Lab hours

HET 150

Heavy Equipment Fuel Systems and Emissions

Prerequisite: HET 107

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to familiarize the students with a wide variety of heavy equipment diesel engine fuel systems and operation. Topics covered include hydro-mechanical systems such as port-helix, inlet-metering, sleeve-metering and mechanical unit injectors as well as computerized management systems including common rail and amplified common rail. Additional topics regarding diesel engine emission control strategies and devices such as diesel oxidation catalyst, diesel particulate filter and selective catalytic reduction will also be covered. Component failure analysis will be discussed as part of testing and adjusting of various fuel systems. In addition, proper shop and personal safety, and how to use manufacturer's service specifications information will also be covered.

4 Units

54 Lecture hours

54 Lab hours

HET 160

Heavy Equipment Diesel Engines

Prerequisite: HET 107

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment

Transfers to: CSU

This course is designed to familiarize the students with the mechanical aspects of the Heavy Equipment diesel engines. Topics covered include engine terminology, designs, theory of operation, construction, disassembly, cleaning, components inspection, failure analysis, and reassembly. In addition, proper shop and personal safety, correct usage of shop and hand tools, precision measuring instruments, critical fasteners, and how to use manufacturer's service specifications information will also be covered.

4 Units

54 Lecture hours

54 Lab hours

HET 200

Heavy Equipment Hydraulic Fundamentals

Prerequisite: HET 107

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This introductory course is designed to familiarize the students with a variety of mobile hydraulic systems and their operational characteristics. Topics covered include hydraulics safety, hydraulic power principles, system designs, basic components, oil contamination and filtration, hydraulic symbols, schematics, diagrams, and testing instruments. In addition, an overview of electro-hydraulic systems including electric and electronic components, controllers, controller programming, and data communication, will also be covered. Hydraulic trainer simulators will be used to illustrate power principles and operation. Using hydraulic schematics the students will build a wide variety of hydraulic systems commonly installed in modern heavy equipment.

4 Units

54 Lecture hours

54 Lab hours

HET 210

Heavy Equipment Hydraulic Diagnostics

Prerequisite: HET 200

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is intended to familiarize the students with the heavy equipment's hydraulic and electro-hydraulic systems. Topics include review of hydraulic theory and basic hydraulic system designs and components, hydraulic and electronic components used in electro-hydraulic systems, hydraulic controllers, sensors, actuators, and data commu-

nications. In addition, the students will be introduced to the strategy-based diagnostics, with an emphasis on electro-hydraulic controls failures, using hydraulic trainer simulators and live equipment.

4 Units

54 Lecture hours

54 Lab hours

HET 220

Heavy Equipment Powertrains I

Prerequisite: HET 107

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to familiarize the students with conventional Heavy Equipment powertrain systems and components. Topics covered include fundamentals of gears, friction and anti-friction bearings, mechanical clutches, manual transmissions, driveline systems, drive axles, final drives, hydraulic and air brakes, and undercarriage systems. Component failure analysis will be discussed as part of disassembly, inspection, and reassembly of various transmissions, drive axles, and final drives. In addition, proper shop and personal safety, and how to use manufacturer's service specifications information will also be covered.

4 Units

54 Lecture hours

54 Lab hours

HET 230

Heavy Equipment Powertrains II

Prerequisite: HET 220

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is intended to familiarize the students with a wide variety of modern heavy equipment powertrains systems and components. Topics covered include powershift transmissions, torque converters, hydrostatic drive systems, AC electric drive systems, spring-applied hydraulically released brakes, steering, and suspension systems. Component failure analysis will be discussed as part of disassembly, inspection, and reassembly of various transmissions, drives, brakes and steering systems. In addition, proper shop and personal safety, and how to use manufacturer's service specifications information will also be covered.

4 Units

54 Lecture hours

54 Lab hours

HET 240

Heavy Equipment Heating, Ventilation and Air-Conditioning

Prerequisite: HET 107

Advisory: ENGL 035 or ENLA 100 or

appropriate assessment; READ 043 or

appropriate assessment

Transfers to: CSU

This course is designed to familiarize the student with the heavy equipment's heating, ventilation and air-conditioning systems, and prepare them for an entry level technician in this field. Topics covered include environmental and safety practices, thermodynamic principles, refrigeration systems, engine cooling and heat sources, service and troubleshooting procedures. Automatic systems, service equipment, contamination issues and the rules of AQMD/EPA will also be covered. During the course, students will be given the opportunity to earn their certification license (EPA Rule 1411).

4 Units

54 Lecture hours

54 Lab hours

HET 290

Cooperative Work Experience/Internship for Heavy Equipment Technology Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under the supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the heavy equipment maintenance field and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

HET 299

Directed Study in Heavy Equipment Technology

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Heavy Equipment Technology beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units
54 to 162 Lab hours

HISTORY

Division of Behavioral & Social Sciences

HIST 101 (C-ID HIST 150) **History of World Civilization to the 17th Century**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of the political, economic and social development of world civilization up to the 17th century. Special emphasis is placed on the origins of the earth's principal centers of civilization, their subsequent interaction, and the emergence of a world economic, political, and intellectual order. This course is designed for the student who wishes to increase their understanding and appreciation of cultural, political, and intellectual diversity, as well as the process of intercultural interaction. This course also satisfies a course requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 102 (C-ID HIST 160) **History of World Civilization, 1500 to the Present**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of the political, economic, and social development of world civilization from 1500 to modern times. Special emphasis is placed on the origins and development of the world economic system and the corresponding cultural, intellectual, and social currents that have characterized most of the world's leading societies since 1500. This course is intended for the student

who wants to increase their understanding and appreciation of both the diversity and the unity of the modern world. This course also satisfies a course requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 122 **History of Mexico**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course examines the cultural, social, and political history of Mexico from pre-Columbian to modern times. The course will cover pre-Columbian Mesoamerica, the Spanish conquest and the colonial period, and the national period, with special emphasis given to Mexico's relations with the United States and its place and role in the world community. This course is designed for students interested in understanding Mexico as a nation and is also recommended for all history and most social science majors. This course is also a restricted elective for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 131 **History of the North American Indian**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course surveys the struggle of Native Americans to maintain their culture in the face of invasion and changing technology. It explores government Indian policies of removal, pacification, annihilation and assimilation, and considers present issues facing Native Americans today. This course is intended for students who wish to understand the role of Native Americans in the historical development of North America. It is recommended for all history major. This course also satisfies a course requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 143 (C-ID HIST 130) **History of the United States to 1877**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of United States history from Native American origins to post Civil War Reconstruction. Social, economic, political and cultural developments are explored with an emphasis on the independence movement, Revolutionary War,

the new Republic, westward expansion and the Civil War. This course is designed for students interested in the foundational history of the United States. It is recommended for all history majors and fulfills the CSU/UC American Institutions requirement and the American Institutions requirement for the Associate degree. This course also satisfies a requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 143H (C-ID HIST 130) **History of the United States to 1877 Honors**

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of United States history from Native American origins to post Civil War Reconstruction. Social, economic, political and cultural developments are explored with an emphasis on the independence movement, Revolutionary War, the new Republic, westward expansion and the Civil War. This course is designed for students interested in the foundational history of the United States. It is recommended for all history majors; it fulfills the CSU/UC American Institutions requirement and the American Institutions requirement for the Associate degree and is intended for those who meet Honors Program requirements. This course also satisfies a requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 144 (C-ID HIST 140) **History of the United States Since 1865**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: HIST 144 or HIST 144H)

This course provides a survey of the political, social, economic, and cultural development of the United States from Reconstruction (1865) to the present. Some topics addressed are Reconstruction, the American West, capital and labor in the age of enterprise, America as an emerging world power, World War I, World War II, the Vietnam Era, the Cold War, the new world order. This course fulfills the American Institutions requirement for the Associate Degree. It is recommended for all History majors and satisfies a course requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 144H (C-ID HIST 140)
History of the United States Since 1865 Honors

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: HIST 144 or HIST 144H)

This course provides a survey of the political, social, economic, and cultural development of the United States from Reconstruction (1865) to the present. Some topics addressed are Reconstruction, the American West, capital and labor in the age of enterprise, America as an emerging world power, World War I, World War II, the Vietnam Era, the Cold War, the new world order. This course fulfills the American Institutions requirement for the Associate Degree. It is recommended for all History majors and satisfies a course requirement for the History for Transfer (AA-T) degree and is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

HIST 156
Black American Experience to 1865

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This survey investigates the history of African Americans from their west African origins to the abolition of slavery, roughly dating from the 1400s to 1865. In this course, students will examine the ways, in which, blacks constructed a distinct African American culture, influenced by the African past, shared experiences of enslavement, and the experiences of free blacks. This course will also pay close attention to the methods and tactics employed by blacks to exert control over their lives, highlighting their major successes and achievements, despite myriad forms of oppression and discrimination.

3 Units
54 Lecture hours

HIST 157
Black American Experience Since 1865

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course examines the historical experiences of black Americans from emancipation to the present, paying close attention to the 20th century. This course will navigate and examine the factors that led to the development of a distinct black American culture, a legacy of resistance against legal and extralegal inequities, the acquisition of political and economic

rights, and black contributions to the expanding definition of democracy and freedom.

3 Units
54 Lecture hours

HIST 158
US Comparative History of American Indians and Black Americans

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of the role minorities have played in the historical development of the United States from the earliest times to the present, with an emphasis on the twentieth century. The course begins with a study of racism, followed by the history and cultural contributions of the American Indian and the African American. This course fulfills the American Institutions requirement for the Associate Degree. This course is intended for those who desire a better understanding of the history of minorities in the United States. This course also satisfies a course requirement for the AA-T in History for Transfer degree.

3 Units
54 Lecture hours

HIST 159
US Comparative History of Mexican and Asian Americans and Women

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: HIST 159 or HIST 159H)

This course surveys the roles selected minorities have played in the historical development of the United States from the earliest times to the present. Emphasis is placed on the history and cultural contributions of Mexican Americans, Asian Americans, and American women. This course is intended for those wishing to fulfill the American Institutions requirement for the Associate degree and CSU, and those who desire a better understanding of the history of minorities in the United States. This course is a restricted elective for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 159H
US Comparative History of Mexican and Asian Americans & Women Honors

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: HIST 159 or HIST 159H)

This course surveys the roles selected minorities have played in the histori-

cal development of the United States from the earliest times to the present. Emphasis is placed on the history and cultural contributions of Mexican Americans, Asian Americans, and American women. This course is intended for those wishing to fulfill the American Institutions requirement for the Associate degree and CSU, those who desire a better understanding of the history of minorities in the United States, and those wishing to take the Honors version. This course is a restricted elective for the History for Transfer (AA-T) degree. This course is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

HIST 167
History of California

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course provides an overview of California history from the first aboriginal inhabitants to modern times. Cultural, political, social and economic development will be addressed in the context of history. The development of contemporary institutions and the historical context of current issues will be addressed. This course is suitable for students seeking further understanding of California's past and present, and those preparing for a career in teaching at the elementary level. It also satisfies a course requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 170
Women in American History

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is a survey of the role, status, and contributions of women of different ethnic groups and social classes in American society from earliest times to the present, with an emphasis on the twentieth century. Special attention will be given to an understanding of how gender has shaped women's options and expectations within the private and public spheres of society. This course is designed for the student who wants to learn more about women's history in America and is recommended for all history majors. This course satisfies a course requirement for the History for Transfer (AA-T) degree.

3 Units
54 Lecture hours

HIST 299

Directed Study in History

Prerequisite: HIST 101 or 102 or 143 or 143H or 144 or 144H

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in History beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

HIST 325

History of Science and Technology

Prerequisite: ENGL 201 or ENGL 201H, and HIST 101 or HIST 102 or HIST 143 or HIST 143H or HIST 144 or HIST 144H

This upper division General Education course is designed for students pursuing a Bachelor's of Science degree in Automotive Technology but it is also open to all students who have successfully completed the prerequisites. This course explores the history of science and technology from the initial understandings of the universe from Ptolemy and Aristotle, to the challenges brought by the scholars of the Scientific Revolution, to the modern innovators of scientific developments and advancements in technology. This course provides an overview of how individuals, societies, and nations were impacted by these developments and how science and technology impacts political, social, economic, and cultural changes over time. Since both science and technology are vital in the 21st century, this course aims to highlight the long history behind each from a global historical perspective.

3 Units

54 Lecture hours

HOMELAND SECURITY

Division of Public Safety

HMLD 101

Introduction to Homeland Security

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides first responders and other interested students with the foundational knowledge pertaining to homeland security. This course will include discussions on the policies, organizational relationships, and legal issues in the American context from federal, state and local municipal government perspectives.

3 Units

54 Lecture hours

HMLD 102

Introduction to Emergency Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides first responders and other interested students with the foundational knowledge pertaining to emergency management. This course will include discussions on the policies, organizational relationships, and legal issues in the American context from federal, state and local municipal government perspectives.

3 Units

54 Lecture hours

HMLD 103

Terrorism & Violence in Society

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides the student with an overview of the domestic and global issues related to terrorism and violence in society. This course includes an analysis of terrorism and violent extremism as an aggressive alternative for peaceful change and traditional warfare in the modern age. Students will also investigate the role economic, political and social factors play in determining patterns of terrorist activity, homegrown terrorism and violent extremism in society from a domestic and international level of analysis.

3 Units

54 Lecture hours

HMLD 104

Emergency Planning & Response

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is for students who desire to know about emergency planning and response. This course will cover emergency planning and response using the National Incident Management System (NIMS) and the Incident Command System (ICS) as part of the National Response Framework (NRF). The student will learn how the Nation responds to all types of disasters and emergencies. The student will also learn how the NRF's flexibility is used in the public-private sector of the homeland security enterprise, inclusive of governmental agencies and regulatory and legal sources responsible for hazard mitigation. Application of the concepts learned will be applied to risk assessments and development of strategies and plans at the local, state, national and international levels of government.

3 Units

54 Lecture hours

HMLD 105

Hazard Mitigation in Emergency Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to mitigation, one of the four core phases of emergency management. This course will cover the hazard planning process to assist students in mitigating or eliminating hazards from an all hazard approach to emergency management. The student will also learn about the national framework used in the public-private sector of the homeland security enterprise, inclusive of governmental agencies and regulatory and legal sources responsible for hazard mitigation. Application of the concepts learned will be applied to risk assessments and the development of strategies at the local, state, national and international levels of government.

3 Units

54 Lecture hours

HOSPITALITY

Division of Career & Technical Education

HOSP 101

Introduction to the Hospitality Industry

Transfers to: CSU

This course provides an overview of the hospitality industry with perspectives on customer service, operations, and career opportunities. Key industry segments are presented with close attention to service standards, trends and issues, the interrelationships between industry segments and the connections with the tourism industry.

3 Units

54 Lecture hours

HOSP 102

Introduction to Hotel Operations

Transfers to: CSU

This course is designed to introduce students to the hotel industry. Students will gain an understanding of hotel organization and classification, and the range of hotel operations including front office, housekeeping, food and beverage, information systems, accounting, and property maintenance. They will also gain an understanding of how these functional areas work together to deliver the guest experience and exceed guests' expectations.

3 Units

54 Lecture hours

HOSP 103

Sanitation and Safety

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment;

Transfers to: CSU

In this course, students will learn the principles and practices of sanitation and safety in food service operations. Topics covered include food-borne illness identification and prevention, the Hazard Analysis of Critical Control Point (HACCP) system, safety maintenance and prevention, OSHA's current regulations, accident and fire prevention. The course will also prepare students for the National Restaurant Association's ServSafe® Manager Certification.

3 Units

54 Lecture hours

HOSP 104

Introduction to Food and Beverage Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to introduce students to the food and beverage industry and entry-level management of food and beverage operations. Focal areas include an overview of the food service industry, nutrition, menu pricing and food costs, types of food and beverage service, sanitation and safety, managing finances, and sustainability.

3 Units

54 Lecture hours

HOSP 201

Hospitality Law

Transfers to: CSU

In this course, students gain an understanding of the legal aspects of managing hospitality operations. Limiting personal and business exposure to liability and best practices for complying with laws and regulations are emphasized. Topics include food and beverage liability, employee selection, common contracts, responsibilities to guests and for guest property, and safety and security.

3 Units

54 Lecture hours

HUMAN SERVICES

Division of Behavioral & Social Sciences

HUSR 111

Human Services in Contemporary Society

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to the history and philosophy of human services in contemporary society. The function and objectives of human service organizations as well as the qualifications of the professional will be emphasized. A survey of the populations served in the field will focus on cultural, social, economic and historical trends. The course is designed for students pursuing careers in social work, counseling or community organizing.

3 Units

54 Lecture hours

HUSR 118

Chemical Dependency: Intervention, Treatment, and Recovery

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an introduction to current perspectives with respect to the management of chemical dependency. Through an examination of alcoholism as a model of drug dependence, the treatment of

and recovery from such disorders will be explored from two divergent perspectives: the reformatory and the transformative. Current treatment modalities will be compared and contrasted in terms of their view of the individual in both the social and clinical context. The class experience itself will serve as an intervention by challenging students to examine their existing ideas about treatment and recovery from substance use disorders. Suitable for students interested in furthering their understanding of substance dependence and those interested in working with populations recovering from or at risk for such problems.

3 Units

54 Lecture hours

HUSR 122

Introduction to Group Leadership and Process

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an introduction to the dynamics of group interaction. The individual's firsthand experience is emphasized as the group studies itself under supervision. The factors involved in problems of communication, effective emotional responses, and personal growth will be highlighted. Group process will be examined as a means of changing behavior. Suitable for students interested in furthering their understanding of group dynamics and those interested in supervising groups dedicated to achieving behavioral change.

3 Units

54 Lecture hours

HUSR 123

Drug Education and Prevention

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students interested in furthering their understanding of substance dependence and those interested in working with populations recovering from or at risk for such problems. It addresses the history, theories, models, and approaches to substance abuse education and prevention. In addition to an academic look at drug abuse, students will also explore and examine their own values and beliefs about substance use and misuse. The impact of public policy, the media, and drug education programs on drug use will all be considered.

3 Units

54 Lecture hours

HUSR 124
Introduction to Case Management and Documentation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course introduces students to case management and documentation in a variety of settings. Students will study the purpose, function, and rationale for case management. In addition, the documentation of client clinical records will be covered, emphasizing the taking of social histories and the writing of treatment plans. The professional guidelines necessary for working with clients in a social services setting will also be covered, providing the student with an understanding of issues related to ethics, client rights, and confidentiality. This class is designed for students interested in working in a social services setting.

3 Units

54 Lecture hours

HUSR 126
Counseling the Family of the Addicted Person

Advisory: ENGL 035 OR ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an overview of the systems approach to counseling the chemically dependent family. Alcoholism will be used as a model for developing counseling skills through the analysis and examination of the relationships that develop in the addicted family system. An experiential format will be employed as students participate in exercises that lead to the development of the necessary skills. This course is designed for those working with or preparing to work with the drug dependent and those around them.

3 Units

54 Lecture hours

HUSR 128
Chemical Dependency and Co-Occurring Disorders

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students interested in furthering their understanding of the co-existence of substance abuse with other mental health disorders. The course will assist students to gain the needed knowledge and skills to interact with clients who have various mental health disorders that are complicated by co-occurring substance abuse problems. The course also covers the diagnostic, therapeutic, and recovery phases that will assist students' seeking a Drug

Studies Certificate or Associate of Science degree in Drug Studies. Other students interested in psychology, human services and the behavioral sciences will benefit greatly from the content of the course.

3 Units

54 Lecture hours

HUSR 130
Essential Counseling Skills

Advisory: ENGL 035 OR ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course focuses on critical counseling skills and strategies within a multicultural context. The course provides a vital orientation to the helping process and the counseling profession. Current issues within the counseling profession, such as diversity and multiculturalism, are discussed and integrated throughout the course. A unique focus is given to the student's growth and development as a counselor and how the student can best use supervision in this developmental process. This course would be of benefit to anyone working in a human service or social services setting.

3 Units

54 Lecture hours

HUSR 199A
Seminar in Human Services

Prerequisite: PSY 101 or SOC 101, Corequisite: HUSR 199B

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The corequisite courses HUSR 199A and 199B provide students with a supervised field experience in a community organization, agency, or institution, allowing the student to apply knowledge and learn new skills outside of the classroom environment. This course provides the academic element to this experiential course offering and reinforces the application of concepts gained in the prerequisite course or courses.

1 Unit

18 Lecture hours

HUSR 199B
Fieldwork in Human Services

Prerequisite: PSY 101 or SOC 101, Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The corequisite courses HUSR 199A and 199B provide students with a supervised field experience in a community organization, agency, or institution, allowing the student to apply knowledge and learn new skills outside of the classroom environment. In this course students take the theories and principles learned in

the classroom and apply them to their work in a field setting. This course is designed to provide the student with an opportunity to develop skills that would facilitate gaining employment in the human services field.

Unpaid field work: 2 units =120

hours; 3 units = 180 hours

Paid field work: 2 units = 150 hours;

3 units = 225 hours

2 to 3 Units

120 to 225 Lab hours

HUSR 230A
Drug Studies Seminar

Prerequisite: HUSR 122, HUSR 124, HUSR 130

Corequisite: HUSR 230B

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The corequisite courses HUSR 230A and 230B are designed to be taken in the final semester of the Drug Studies Program and provide the student with work experience in a drug treatment facility. This seminar course is a companion to the internship experience and will focus on ethics, the further development of counseling skills, and the use of community resources. Concurrent enrollment in Human Services 230B.

1 Unit

18 Lecture hours

HUSR 230B
Drug Studies Internship

Prerequisite: HUSR 122, HUSR 124, HUSR 130

Corequisite: HUSR 230A

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The corequisite courses HUSR 230A and 230B are designed to be taken in the final semester of the Drug Studies Program and provide the student with work experience in a drug treatment facility. Through their internship work, students will apply the concepts and skills gained through their coursework as they serve as an intern in a setting where drug dependent individuals are served. Students must meet the requirements of the internship facility. Concurrent enrollment in Human Services 230A.

Unpaid field work: 2 units = 120

hours; 3 units = 180 hours

Paid field work:

2 units = 150 hours; 3 units = 225

hours

Student Unpaid Internship:

120 hours

Student Paid Internship:

150 hours

2-3 Units

120 to 225 Other hours

HUMANITIES

Division of Behavioral & Social Sciences

HUM 110

Survey of Humanities

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides an interdisciplinary presentation of cultural forces, providing the student with a comprehensive view of the most vital artistic, literary, philosophical, religious and architectural movements within the Western, Eastern and Meso-American traditions from the Egyptians to the 1500s. This course is intended for students who wish to further their understanding of the major cultural developments from around the world.

3 Units

54 Lecture hours

HUM 111

Survey of Humanities

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides an interdisciplinary presentation of cultural forces, providing the student with a comprehensive view of the most vital artistic, literary, philosophical, religious, scientific and architectural movements within the Western, Eastern and Latin American traditions from the Renaissance to the 20th century. This course is intended for students who wish to further their understanding of major cultural developments around the world.

3 Units

54 Lecture hours

HUM 125

Introduction to Mexican Culture

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: HUM 125 or HUM 125H)

This course provides an interdisciplinary presentation of vital artistic, literary, architectural, musical, political, religious and historical movements within Mexico spanning from Pre-Cortesian to contemporary times. This course is designed for students who wish to further their understanding of major Mexican cultural and historical developments.

3 Units

54 Lecture hours

HUM 125H

Introduction to Mexican Culture

Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: HUM 125 or HUM 125H)

This course provides an interdisciplinary presentation of vital artistic, literary, architectural, musical, political, religious and historical movements within Mexico spanning from pre-Cortesian to contemporary times. This course is designed for students who wish to further their understanding of major Mexican cultural and historical developments. This course is intended for those who meet Honors Program Requirements.

3 Units

54 Lecture hours

HUM 130

Contemporary Mexican-American Culture

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides a contemporary interdisciplinary examination of the most vital Mexican-American literary, artistic, musical, theatrical, social, political and historical movements. This course is designed for students who wish to further their understanding of major Mexican-American cultural contributions to contemporary society.

3 Units

54 Lecture hours

HUM 140

Introduction to Asian Cultures

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students who wish to further their understanding of major Asian cultural contributions to classic and contemporary society. The student will be provided with an interdisciplinary examination of the most vital Asian literary, artistic, philosophical, architectural, religious, political and historical movements.

3 Units

54 Lecture hours

JAPANESE

Division of Communications & Languages

JAPN 101

Japanese I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides the student with an introduction to the Japanese language and culture. The course stresses oral and written proficiency through fundamental use of the Japanese language as well as the Hiragana and Katakana script. Students will also receive an introduction to Kanji characters. Various facets of Japanese history, culture and civilization will also be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This course is intended for those interested in learning to speak Japanese, as well as for those seeking a degree in the Japanese language.

4.5 Units

72 Lecture hours

27 Lab hours

JAPN 102

Japanese II

Prerequisite: JAPN 101 or completion of 2 years high school Japanese with a grade of "C" or better

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a continuation of the essentials of the Japanese Language. The course stresses oral and written proficiency through fundamental use of the Japanese language, as well as the Hiragana and Katakana script. Students will further their knowledge of Kanji characters. Various facets of Japanese history, culture and civilization will also be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This course is intended for those interested in learning to speak Japanese, as well as for those seeking

a degree in the Japanese language.
4.5 Units
72 Lecture hours
27 Lab hours

JOURNALISM

Division of Communications & Languages

JOUR 110

Digital Photo Journalism

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an introduction to students in the process of taking photographs using digital cameras, digital video cameras, and digital printing devices, as well as computer skills, photo-composition, printing and scanning techniques using Photoshop for the use of publication, and other computer skills related to contemporary photo journalism. Assignments may include work for college publications. Class is recommended for students majoring in journalism or photography.

3 Units

36 Lecture hours

54 Lab hours

JOUR 120 (C-ID JOUR 110)

Communications Reporting and Writing

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

The course is an introduction to the writing and editing techniques used in the newspaper industry, with an emphasis on gathering information and the principles of clarity and conciseness. Students will use computers during class and lab times. This course is intended for students who are pursuing the Associate of Science Degree/Certificate of Achievement in Mass Communications with either Mass Media or Print Media Specializations.

3 Units

54 Lecture hours

JOUR 147

Broadcast News

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is for students interested in writing for radio and television and is an introduction to the principles and techniques of broadcast news with special reference to the gathering and writing of news for radio and television, script writing, interviewing, and the procedures and

techniques of presenting the news for broadcast. Each student will be assigned to write, direct, edit, and oversee the production of a video broadcast for the college's digital newspaper during the semester.

3 Units

36 Lecture hours

54 Lab hours

JOUR 220

Advanced Reporting and Writing

Prerequisite: JOUR 120

Transfers to: CSU

This course is designed to meet lower division requirements for Journalism majors which are transferrable to four-year institutions. JOUR 220 is a continuation of JOUR 120 with an emphasis on improvement of basic skills. This course concentrates on writing and editing of more advanced news and feature stories, factual forms for newspapers and further study of the laws of journalism. Students will study methods of preparing material intended for publication in print and online editions of newspapers.

3 Units

54 Lecture hours

JOUR 230

Magazine Production

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course includes writing news, news features, profile features, commentary, and photography for publication in the college magazine, La Cima. Students will learn copy-editing, layout/computer design, Photoshop, digital photography, and advertising fundamentals through the process of writing, editing and laying out the college magazine.

3 Units

36 Lecture hours

54 Lab hours

JOUR 231

Digital Magazine Production

Prerequisite: ENGL 101

Advisory: GDSN 172, JOUR 120, READ 043 or appropriate assessment

Transfers to: CSU

This course is designed to introduce students to the fundamentals of magazine writing, production, and editing. Students will learn the methods, techniques, and procedures of magazine publication using InDesign to layout magazine content. Students will also master the development of pre- and post-production of *La Cima Magazine*. Students will learn to develop story ideas, magazine content, write stories in magazine style, and learn to photograph for magazines. Students will learn to prepare

for publication and design magazine pages. Class lectures will include magazine preparation, production, organization, structure, and operation. At the conclusion of the course students will have participated in the total development and production of a magazine(s) that will be published online using www.issuu.com, and printed on hard copy. Students will have also mastered the use of design layout, illustration, and making pages well-balanced.

3 Units

36 Lecture hours

54 Lab hours

JOUR 241 (C-ID JOUR 130)

Newspaper Production I

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is intended for students wanting to learn production and management techniques for a college newspaper. Students will participate in every facet of developing a newspaper for the college community by serving as staff writers, staff photographers, editors and layout personnel. Students will publish the college newspaper, El Paisano, during the semester by having weekly assignments for different sections of the paper such as: News, Features, Arts and Entertainment, Opinion, Advertising and Sports. In addition students may be taking photos for special Focus pages. Editors will be responsible for designing their sections of the newspaper on days designated by deadline of the publication by using Quark Express and Photoshop.

4 Units

36 Lecture hours

108 Lab hours

JOUR 242 (C-ID JOUR 130)

Digital Newspaper Production I

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Advisory: JOUR 241

Transfers to: CSU

This course is intended for students wanting to learn the production and management techniques of the college newspaper El Paisano as an online publication. Students will participate in every facet of developing and gathering the news for the online edition of El Paisano during the semester by having daily and weekly assignments for different sections of the newspaper such as: News, Features, Arts and Entertainment, Opinion, Advertising, and Sports. In addition students may be taking photos for special slide shows online, developing and producing Radio

Podcasts online and developing and producing Video News and Feature programs online. Editors will be appointed and will give out assignments to staff personnel during the semester and help with the development of each member of the class to produce viable online news.

4 Units

36 Lecture hours

108 Lab hours

JOUR 243 (C-ID JOUR 131)

Newspaper Production II

Prerequisite: JOUR 241

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is intended for students wanting to continue in an advanced degree the production and management techniques of the college newspaper. Students will continue writing and producing El Paisano, the campus newspaper, through continued lectures and advanced demonstrations and the proper techniques for writing, proofreading, layout by learning Quark Express and photo enhancements through Photoshop. Students will be expected to serve in leadership roles and cover a major or public affairs beat.

4 Units

36 Lecture hours

108 Lab hours

JOUR 244 (C-ID JOUR 131)

Digital Newspaper Production II

Prerequisite: JOUR 242

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is intended for students wanting to continue in an advanced degree the production and management techniques of the college newspaper El Paisano as an online publication. Students will continue to work on writing for the online newspaper but will learn, by hands-on development, actual video broadcasts by using station video equipment that will encompass the entire Rio Hondo campus and areas of interest within the community. Students will also work on KRHC, the student radio station to develop audio news programs for the station. Those students wishing to may also develop photo slide presentations of action taken through student activities on campus for the online publication.

4 Units

36 Lecture hours

108 Lab hours

JOUR 290

Cooperative Work Experience/Internship for Journalism Related Fields

Prerequisite: JOUR 120

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in journalism related fields under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in an area of journalism related fields and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose intended job is related to the field of journalism and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures"

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

JOUR 299

Directed Study: Journalism

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor.

Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3)

units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

KINESIOLOGY THEORY

Division of Kinesiology, Dance, and Athletics

KIN 058

Yoga Teaching Training I: Foundations

Prerequisite: KINA 158

Corequisite: KINA 158

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

This course includes foundational information necessary for those intending to teach Hatha Yoga. The student who successfully completes this course with the co-requisite one unit lab practicum and KINA 258 Yoga II will fulfill one half, or 100 hours required for the Yoga Alliance RYS 200 Certification. The first of a sequential two-part series, Yoga Teacher Training I: Foundations will focus on establishing a personal practice in combination with an experiential analysis of the foundational Hatha Yoga techniques of Pranayama (breath control), Asana (postures) and Dhyana (meditation). This course will also introduce the student to the history and philosophy of yoga, as well as the ethics, methodologies, and business of teaching yoga. This course is designed for the student pursuing the Yoga Teacher Training Certificate, a career teaching yoga in the fitness industry, or for those interested in furthering their understanding of the effects of yoga for health, fitness, and performance.

3 Units

54 Lecture hours

KIN 059

Yoga Teaching Training II: Methodologies

Prerequisite: KIN 058, KINA 258

Corequisite: KINA 258

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

This course builds upon KIN 58/Yoga Teacher Training I: Foundations to include further study about information necessary for those intending to teach Hatha Yoga. The student who successfully completes this course will fulfill one half, or 100 hours necessary to apply for the Yoga Alliance RYS 200 Certification. The second of a sequential two-part series, Yoga Teacher Training II: Methodologies builds on the foundations of analysis

and personal practice to pranayama, asana, and dhyana. Students will study the historical contexts and philosophies of Hatha Yoga as it is taught in the United States today, as well as the ethics, methodologies, and business of teaching yoga. This course is designed for the student pursuing the Yoga Teacher Training Certificate, a career teaching yoga in the fitness industry, or for those interested in furthering their understanding of the effects of yoga for health, fitness, and performance.

3 Units

54 Lecture hours

KIN 115

Fitness Specialist Internship

Prerequisite: Instructor approval

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course will provide students with practical experience in the field of exercise and fitness. Emphasis is placed on participant screening, evaluation, fitness assessment, exercise program design, nutrition education, self-marketing, social media, fitness specialist/client relationships and professional responsibility in a fitness setting. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the mind and body. Instructor approval is required for enrollment.

2 Units

18 Lecture hours

54 Lab hours

KIN 122

Nutrition for Sport and Fitness

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course provides an overview of the role of nutrition to increase energy and enhance performance. Nutrient needs before, during, and after exercise are evaluated for their effect on optimal health. Carbohydrate loading, popular diets and supplementation are discussed. This course is designed for the student pursuing a career in the fitness industry, a certificate in the proposed Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of nutrition on the mind and body.

3 Units

54 Lecture hours

KIN 126

Principles of Strength and Conditioning

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course is designed to include the necessary information needed for those intending to teach strength and conditioning. The course covers anatomy and physiology, bioenergetics, biomechanics, training adaptations, exercise and equipment selection, training techniques, program design, and safety factors. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, or those interested in furthering their understanding of the effects of exercise on the body and mind.

3 Units

54 Lecture hours

KIN 127

Exercise Physiology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course provides an overview of how the body functions under conditions of exercise stress and how fitness training affects health and wellness. Emphasis will be placed on muscular, cardiovascular, respiratory, bioenergetics, and other physiological processes that are affected by exercise. The effects of various diseases will also be addressed. This course is designed for the student pursuing a career in the fitness industry, a Certificate in the Fitness Specialist Program, or those interested in furthering their understanding of the effects of exercise on the body and mind.

3 Units

54 Lecture hours

KIN 128

Fitness Testing and Exercise Prescription

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: CSU

This course provides an overview of how to assess cardiorespiratory endurance, muscular strength and endurance, flexibility, body fat, pulmonary function, blood pressure, postural analysis, and functional movement, and evaluate the results. Emphasis is placed on determining the appropriate test, conducting the test, interpreting the results, and

creating an exercise program. This course is designed for the student pursuing a career in the fitness industry or a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the body.

3 Units

54 Lecture hours

KIN 131

Functional Anatomy of Movement

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 033 or MATH 033B or appropriate assessment
Transfers to: CSU

This course provides an overview of the study of movement as it relates to exercise under both normal and injury conditions. Students will learn the basic anatomical principals used specifically in the area of human performance. Emphasis is placed on applying body alignment, range of motion, stabilization, and acceleration principles to the analysis of movement. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, or those interested in furthering their understanding of the biomechanical effects of exercise on the body.

3 Units

54 Lecture hours

KIN 145

Theory and Analysis of Fitness Instruction

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course provides an introduction to the principles and techniques involved in teaching group exercise and developing a personal trainer/client relationship. Emphasis is placed on client assessment, communication skills, program design, exercise adherence, teaching strategies, and professional responsibility and liability. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the mind and body.

2 Units

36 Lecture hours

KIN 146

Training Principles for Special Populations

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: CSU

This course provides an overview of the exercise implications for special populations related to age, medical condition and level of fitness. Emphasis is placed on cardiac conditions, diabetes, physical disabilities, HIV and AIDS, asthma, sensory impairments, seniors, children, mentally impaired and pregnant and post-partum women and the issues and barriers to exercise. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the mind and body.

2 Units

36 Lecture hours

KIN 157

Theory of Lifeguard Training and Water Safety

Prerequisite: Swim 300 yards continuously; Tread water for two minutes using only the legs; Complete timed swimming, submersion and retrieval event; Swim at American Red Cross Learn-to-Swim Level 4 Proficiency

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is of interest to students who wish to earn the American Red Cross certifications necessary for employment as a pool lifeguard and swimming instructor. This course gives the most current instruction in American Red Cross (ARC) lifeguard training, first aid and cardiopulmonary resuscitation/automated external defibrillation (CPR/AED) skills and Water Safety Instructor (WSI) courses. Upon successful completion, students earn certifications for American Red Cross Lifeguard Training, CPR/AED for the Professional Rescuer, First Aid for Public Safety Personnel (Title 22), and Water Safety Instructor. These certifications enable students to gain eligibility for a pool lifeguarding position and to teach the Learn-to-Swim programs of the American Red Cross. Adequate swimming skills are necessary at the Learn-to-Swim Level 4. Students may petition to re-enroll in the course to renew certifications.

3 Units

36 Lecture hours

54 Lab hours

KIN 159

Leadership Empowerment of Sport

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

The purpose of this course is to explore leadership theories and the impact of leadership empowerment through sport. This course is

designed for all students interested in leadership dynamics within individual and team sports. The course will cover topics such as leadership theories, self-awareness, informal and formal leadership, emotional intelligence theory, athlete motivation, team dynamics, communication and the role of the team captains. At the end of the course, students will have more insight into leadership within sport environments.

3 Units

54 Lecture hours

KIN 188

Theory and Practice of Coaching

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The purpose of this course is to explore the impact that coaches have on athletic programs in the community. This course is designed for all students interested in coaching individual and team sports. The course will cover topics such as role of the coach, athlete motivation, coaching leadership, coaching work teams, coaching technology, and effective coaching practice. At the end of the course, students will have more insight into coaching in various athletic programs.

3 Units

54 Lecture hours

KIN 191

Health: Personal Issues

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: KIN 191, KIN 192, or KIN 196)

This course is designed for all students that are physically active and interested in learning how to improve and maintain their personal health. Topics covered include the general health principles, nutrition and diet, physical fitness, stress management, sexuality and reproduction, drug/alcohol use and abuse, consumer and safety issues and the process of death. Students learn how to develop sound health principles through text readings, lectures, assignments/labs and guest speakers.

3 Units

54 Lecture hours

KIN 192

Health: Women's Personal Health

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: KIN 191, KIN 192, or KIN 196)

This course is designed for all students interested in expanding

their knowledge regarding health problems and social issues unique to women. Physiological and psychological aspects of nutrition, hygiene, sexuality and reproduction, drugs and chemicals, and common diseases are among the many topics covered. Guest speakers, videos, current events, and text readings will assist the student in developing sound health principles.

3 Units

54 Lecture hours

KIN 193 (C-ID KIN 101)

Standard First Aid and CPR

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students pursuing a career working with the public and for those who want to further their understanding of handling emergency situations. The student will learn how to give immediate care to the suddenly injured or ill person. In addition, students will learn techniques for control of bleeding, splinting, transporting victims, emergency procedures, one person C.P. R. and the use of an AED. Students will have the opportunity to apply these technical procedures in class. This course fulfills the requirements for American Red Cross certifications in both Standard First Aid and Cardiopulmonary Resuscitation (C.P.R.) and Automatic Defibrillation (AED).

3 Units

54 Lecture hours

KIN 194 (C-ID KIN 100)

Introduction to Kinesiology

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

Transfers to: CSU

This course is designed for those students who are interested in pursuing a career in the field of kinesiology. The philosophy, history, ethical and scientific foundations of kinesiology will be covered. The concepts of basic movement and performance movement in relationship to kinesiology will be examined. Students will explore the sub-disciplines of motor learning, biomechanics, exercise physiology, sport sociology, sport psychology, and sport nutrition. Professional career opportunities in health/fitness, therapeutic exercise, teaching, coaching and sport management will be examined. The challenges for kinesiology, future of kinesiology, sport and health/wellness are also addressed.

3 Units

54 Lecture hours

KIN 195**Social Issues/Media in Sport**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students who are interested in a career in the field of coaching and athletics. This class will study the controversies and the status of sport in our society. Coaching methodologies and future trends in athletics, physical activities, and physical education/kinesiology will be discussed. This class will examine the relationship between sport and media, social media, culture and the economy. An emphasis will be placed on understanding the historical and current roles of sport in society.

3 Units

54 Lecture hours

KIN 196**Health: Fitness and Wellness**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: KIN 191, KIN 192, or KIN 196)

This course is designed for all students who are interested in learning the value of life-long, healthy lifestyles. Students will be given the tools to assist them in making positive life-style changes based on a personal health/fitness profile. Topics covered include: basic anatomy and physiology, nutrition, weight control, tobacco and alcohol, muscle fitness, flexibility, stress reduction, cardiovascular functioning, health topics, disease entities, and preventive health care measures.

3 Units

54 Lecture hours

KIN 197**Prevention and Treatment of Athletic Injuries**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces the basic concepts of athletic training, including instruction for prevention, recognition, management and treatment of common injuries in a physically active population. The skills of basic strapping, bracing padding and taping for the prevention and support of injuries will be presented and practiced. This class is recommended for those interested in becoming a Certified Athletic Trainer.

3 Units

54 Lecture hours

KIN 226**Advanced Training Principles for Sport and Tactical Athletes**

Prerequisite: KIN 122, KIN 126, KIN 127, KIN 128

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; MATH 033 or MATH 033B or appropriate assessment; READ 043 or appropriate assessment; Transfers to: CSU

This course is designed to include the necessary information needed for those intending to assess and teach strength training and performance skills to both sport and tactical athletes. The course covers anatomy and physiology, bioenergetics, biomechanics, training adaptations, physical assessments for strength, agility, power, speed, and quickness, program design, exercise and equipment selection, training techniques, and safety factors. This course is designed for the student pursuing a career in the strength and conditioning area, completing the Strength and Performance Coach Certificate, exploring kinesiology, or for those interested in furthering their understanding of the effects of exercise for strength and performance in sport and tactical athletes.

3 Units

54 Lecture hours

KIN 290**Cooperative Work Experience/Internship for Athletic Training Related Fields**

Prerequisite: KIN 197 and a current CPR card

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; Transfers to: CSU

This course supports and reinforces on-the-job training in the field of athletic training under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of athletic training and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours

1 to 2 Units

3 Lecture hours

60 to 150 Other hours

KIN 297**Advanced Athletic Training**

Prerequisite: KIN 197

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course introduces the advanced concepts of athletic training, including instruction for evaluation and rehabilitation of common athletic injuries. Advanced taping and bracing techniques will also be presented and practiced. This class is designed for students interested in becoming a Certified Athletic Trainer or those who are preparing for a career in any allied health care profession.

3 Units

54 Lecture hours

KINESIOLOGY

Division of Kinesiology, Dance, and Athletics

(For Dance courses – See Dance) Dance-activity courses may be used in place of P.E. activity courses to fulfill degree requirements.

Students may select several different courses or may enroll in a course and continue to the next level of the same course. Courses labeled "I" and "II" fall into the continued instruction category.

KINA 101**Tennis I**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU*

*(*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This is a beginning tennis class designed to take the student to a recreational level in skills. Instruction in the serve, groundstroke, volley, and rules are taught. The student will also learn how to play doubles and singles matches so that the student can compete on a recreational level.

1 Unit

54 Lab hours

KINA 102**Intercollegiate Baseball I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU*

*(*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed for the student interested in competing in baseball at the collegiate level. Instruction will focus on the introduction of advanced drills in the area of offense, defense and pitching. Special attention will be placed on skill

development and class participation in preparing students for intercollegiate competition. This course may be repeated three times for credit.

1 Unit
54 Lab hours

KINA 103 **Softball I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for the beginning student who wishes to gain the fundamental skills of softball. It is designed to present the following skills to the student; throwing, batting, bunting and defense. Additionally, the individual field positions and the responsibilities of team work will be emphasized.

1 Unit
54 Lab hours

KINA 104 **Volleyball I**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is a beginning class designed to present the basic fundamental skills and rules of volleyball. The student will have the opportunity to learn and practice serving, setting, and spiking. The student will also participate in team play. This class is appropriate for students who have never played volleyball, are just learning the game or haven't played for an extended period of time and want to refresh their skills.

1 Unit
54 Lab hours

KINA 105 **Basketball I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This beginning level course designed for all students will provide instruction in the fundamentals of basketball such as dribbling, passing, shooting, team play, rebounding, defense and strategy. Collegiate rules, class competition, injury prevention and care, and proper diet and fitness needs are included in instruction. The emphasis will be on active participation, basketball as recreation and skill development within this team sport.

1 Unit
54 Lab hours

KINA 107 **Badminton I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is a beginning badminton class designed for the student to gain experience of various degrees of competitive play. Instruction in the serve, drive, drop, smash, clears, rules and court etiquette are taught so the student can perform at a competitive level.

1 Unit
54 Lab hours

KINA 108 **Water Polo I**

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is a course in the fundamentals and skills of water polo such as passing, guarding, shooting, team play, and strategy. Rules and class competition are included.

1 Unit
54 Lab hours

KINA 109 **Soccer I**

Advisory: READ 043 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is a beginning soccer/activity class designed for all students interested in developing the physical, technical and tactical elements of the game of soccer. The course will include fundamental skills of soccer which include, dribbling, passing, kicking, collecting and basic concepts of offensive and defensive tactics. Rules of the game, skill practice and participating in recreational soccer matches will be included.

1 Unit
54 Lab hours

KINA 110 **Futsal (Indoor Soccer)**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU
This class will provide instruction and repetition in the technical and tactical components of Futsal (Indoor Soccer). The Federation of International Football Association (FIFA), which is the governing body of soccer in the world and the United States Soccer Federation (USSF), which is the governing body of soccer in the United States recognize Futsal as its own sport consisting of a smaller, fast-paced technical game. FIFA Futsal Laws of the Game will

be introduced to the students. The course will develop skills, provide knowledge of the rules and instruct students to demonstrate Futsal techniques, recognize tactical situations and improve physical fitness.

1 Unit
54 Lab hours

KINA 113 **Golf I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
Golf I is designed for the beginning golfer who wants to gain the fundamental skills that form the basis of good golf technique. The goal of this class is for the student to learn to play a respectable game of golf, to avoid embarrassment, and to enjoy time outdoors with friends. Etiquette, rules and course play are included.

1 Unit
54 Lab hours

KINA 117 **Swimming I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is a beginning class designed to equip students with basic water skills and knowledge in order to make them reasonably safe while in the water. It is suitable for all students interested in basic swimming.

1 Unit
54 Lab hours

KINA 120 **Swim for Fitness**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; KINA 117
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is a swimming/fitness course designed to provide the individual who has beginning swimming skills an opportunity to master the fundamentals of physical fitness as they relate to swimming as an aerobic activity. Emphasis will be placed on aerobic training with some training at the anaerobic threshold and anaerobic levels. This class is suitable for all students interested in swimming as a fitness activity.

1 Unit
54 Lab hours

KINA 124**Self Defense**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: CSU

This course is designed for all students interested in developing both personal safety and self-defense techniques through scenario and martial arts training. Through different forms of martial arts training, students will practice both defensive and offensive moves against various forms of attacks. Proficiency in the practical, effective, and tactical use of movement, leverage and strikes will be stressed.

1 Unit

54 Lab hours

KINA 130**Lifelong Fitness Laboratory**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This 45-hour, self-paced physical fitness laboratory is designed for all students of the college to develop and encourage positive attitudes and habits with regards to health-related fitness components, including cardiovascular fitness, flexibility, and muscular strength and endurance. Each student, upon entry, will be assessed for risk factors and medical history, as well as body composition, cardiovascular fitness, muscular strength and endurance, and flexibility to establish an individual fitness profile. From this profile, an individual exercise prescription will be developed. Fitness activity will primarily utilize exercise equipment organized into an aerobic super circuit with additional activity prescribed in the aerobics machine area, body parts weight training area, and flexibility area. It is expected that the student will attend an average of three 50 minute exercise sessions each week. Additional assessment at the conclusion of the semester will provide data necessary to evaluate the accomplishment of stated goals. Offered on a credit/no credit basis.

1 Unit

54 Lab hours

KINA 132**Aqua Aerobics**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfer to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This class is designed to utilize the resistance properties of the water to improve muscle tone, flexibility and

cardiovascular health and endurance using various exercise movements. Further, water buoyancy will help support the joints and muscles of the body, enabling students of all levels of fitness and abilities to participate in the activity. Students will have the opportunity to improve overall body strength and conditioning through a sequence of exercises done in the water. Students who are overweight, pregnant, elderly, diabetic, recovering from injuries or who have been inactive would find this class appropriate, therapeutic, and beneficial to their health.

1 Unit

54 Lab hours

KINA 133**Wrestling I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This wrestling class is designed for the beginner as well as for the student who wishes to increase their knowledge and skill through practice and competition. It is designed to present the following skills to the student: escapes, pinning combination take-downs, and strategies. The student will learn basic definitions, terminology and rules of wrestling. This class will include information on proper nutrition and fitness conditioning.

1 Unit

54 Lab hours

KINA 134**Cardio Boot Camp**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed for the student who wishes to improve their cardiovascular and core fitness. The student will learn lifelong skills to improve their health. Workout skills such as core strengthening, cardiovascular fitness, step aerobics and flexibility training will be covered. Instruction in proper diet, heart rate monitoring, skills proficiency and fitness program planning will be provided to each student.

1 Unit

54 Lab hours

KINA 136**Pilates Mat I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course introduces students to the basic Pilates floor exercises, which are designed to increase strength in the abdominal and spinal musculature. Students will engage in activities and exercises designed to increase awareness of body alignment, increase strength in the torso, spine and limbs, increase endurance, learn breathing techniques to utilize in strength training exercises, increase coordination, improve balance, and will learn about the muscle groups and their actions being utilized during traditional Pilates mat work. This course is suitable for students interested in conditioning, dance, Hatha Yoga, athletics, and individuals seeking to increase strength to better support the spine in everyday activities.

1 Unit

54 Lab hours

KINA 138**Fitness for Independent Living**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfer to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed to help increase fitness levels for the senior population. It is also appropriate for individuals who are physically challenged, engage in limited activity, and those recovering from injury or long term illness. The purpose of the class is to condition students for strength and flexibility as well as balance, coordination and agility. These skills are important factors in achieving and maintaining the ability to function in daily activities and live independently.

1 Unit

54 Lab hours

KINA 139**Cross Training for Fitness**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This cross-training course is designed for the beginning through advanced student who wishes to increase their cardiovascular fitness level through a variety of aerobic and anaerobic activities. It is designed to present the following skills to the student: running, cycling, swimming, interval training, and introduction to weight training. Additionally, the student will learn basic definitions and terminology of the current fitness arena, assisting them with fitness as a life-long process using a variety of cardiovascular mediums.

1 Unit

54 Lab hours

KINA 140**Walking for Fitness**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed to meet the needs of daily physical exercise for life long fitness and health. Walking is one of the safest and most effective forms of exercise to improve health, and develop and maintain physical fitness. The course provides cardiovascular conditioning through the activity of walking. Instruction in proper diet, heart rate monitoring, skill proficiency and fitness program planning will be provided to each student. This class is designed for students who are interested in starting an exercise program, or developing an active lifestyle.

1 Unit

54 Lab hours

KINA 147**Off-Season Conditioning for Intercollegiate Sports**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed for all students preparing for specific physical fitness related to off-season intercollegiate athletic participation. The purpose of the course is to develop a level of physical fitness, strength and conditioning that will enhance the athlete's ability to be successful in intercollegiate competition. This course may be repeated three times for credit.

1 Unit

54 Lab hours

KINA 148**Strength Training**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed for students who would like to learn the basic fundamentals of strength and conditioning. Students will be introduced to a variety of routines that will enable them to develop a personal exercise plan.

1 Unit

54 Lab hours

KINA 158**Yoga I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfer to: UC (credit limit), CSU*

*(*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed for the beginning student who would like to learn the fundamental physical Asanas (poses) of Hatha Yoga as well as Pranayama (breathing techniques) and Dhyana (meditation techniques).

The goal of the course is to integrate the mind, body, and spirit and to give the student tools to better manage stress, alleviate physical tensions, and encourage optimum fitness. In this introductory course, students learn proper physical alignment in the standing poses (Sun Salutation Series A-C, Warrior 1-2, Downward Dog, Upward Dog, Cobra, Triangle, Crescent), the floor poses (Staff, Lotus, Cobbler, Twists, Backbends), and in elementary inversions (Inverted Leg Rest, Headstand Preparation, Wall-Dog Preparation).

1 Unit

54 Lab hours

KINA 159**Cross Training for Intercollegiate Athletics**

Prerequisite: Participation in Intercollegiate Sports

Advisory: READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This course is designed for any student preparing for intercollegiate athletic competition. This cross-training course is designed for the advanced student-athlete who wishes to increase all aspects of their fitness levels through a variety of strength, flexibility, aerobic and anaerobic activities. The specific physical fitness routines required by the intercollegiate athlete during the off-season will be addressed. The purpose of the course is to develop a level of physical fitness, strength and conditioning that will enhance the athlete's ability to be successful in intercollegiate competition. This course may be repeated three times for credit.

1 Unit

54 Lab hours

KINA 170**Women's Intercollegiate Basketball Team**

Advisory: READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's basketball. This class is offered for 11 consecutive weeks to run concurrent with the intercollegiate basketball season as determined

by the CCCAA governing body.

Students will be required to spend a minimum of 7.36 hours a week for 11 weeks preparing for competition with other colleges. This course may be repeated three times for credit.

1.5 Units

81 Lab hours

KINA 171**Women's Intercollegiate Tennis Team**

Advisory: READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's tennis. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.

3 Units

162 Lab hours

KINA 172**Women's Intercollegiate Volleyball Team**

Advisory: READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's volleyball. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.

3 Units

162 Lab hours

KINA 173**Women's Intercollegiate Softball Team**

Advisory: READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's softball. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.

3 Units

162 Lab hours

KINA 174**Women's Intercollegiate Swim Team**

Advisory: READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4*

units credit for KINA activity courses)
This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's swimming. Students will be required to spend a minimum of 11.25 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
2 Units
180 Lab hours

KINA 175
Women's Intercollegiate Cross-Country Team

Advisory: READ 022 or appropriate assessment
Transfer to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's cross country. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 176
Women's Intercollegiate Soccer Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's soccer. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 180
Men's Intercollegiate Baseball Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students that will be competing at the collegiate level in the sport of men's baseball. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 181
Men's Intercollegiate Basketball Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's basketball for pre-season conditioning and play. This class is offered for 11 consecutive weeks to run concurrent with the intercollegiate basketball season as determined by the CCCAA governing body. Students will be required to spend a minimum of 7.36 hours a week for 11 weeks preparing for competition with other colleges. This course may be repeated three times for credit.
1.5 Units
81 Lab hours

KINA 182
Men's Intercollegiate Cross-Country Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's cross country. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 184
Men's and Women's Intercollegiate Golf Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's and women's golf. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges.
2 Units
180 Lab hours

KINA 185
Men's and Women's Intercollegiate Swim Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of

swimming. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 186
Men's and Women's Intercollegiate Track and Field Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of track & field. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
2 Units
180 Lab hours

KINA 188
Men's and/or Women's Intercollegiate Water Polo Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's and women's water polo. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 189
Men's Intercollegiate Wrestling Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's wrestling. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.
3 Units
162 Lab hours

KINA 190
Men's Intercollegiate Soccer Team

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4*

units credit for KINA activity courses)
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's soccer. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.

3 Units
162 Lab hours

KINA 192
Women's Intercollegiate Sand Volleyball Team

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's sand volleyball. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be repeated three times for credit.

3 Units
162 Lab hours

KINA 201
Tennis II

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; KINA 101
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an intermediate tennis class designed to take the student beyond recreational skills. Advanced instruction in the serve, groundstrokes, volley, and playing strategy is given. The lob and smash are introduced.

1 Unit
54 Lab hours

KINA 202
Intercollegiate Baseball II

Advisory: KINA 102
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for the advanced baseball student interested in competing at the collegiate level. Instruction will focus on advanced drills in the area of offense, defense and pitching. Special attention will be placed in preparing students for intercollegiate competition. This course may be repeated three times for credit.

1 Unit
54 Lab hours

KINA 203
Off Season Softball

Advisory: KINA 103
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for the advanced softball student competing at the collegiate level. Instruction will focus on advanced drills in the area of offense, defense and pitching. Special attention will be placed in preparing students for intercollegiate competition. This course may be repeated three times for credit.

1 Unit
54 Lab hours

KINA 204
Volleyball II

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; KINA 104
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for intermediate volleyball students who have previously played volleyball and are looking to improve their skill and knowledge of the game. Students will develop the intermediate skills of setting, serving, passing, spiking, team Offense of 6-1, 5-1 and defensive coverage. Rules and class competition are included.

1 Unit
54 Lab hours

KINA 205
Basketball II

Prerequisite: KINA 105 or instructor approval for admission
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for the intermediate to advanced basketball player who wants advanced level basketball development. Students will participate in full court team play, receive advanced instruction on strategies, offensive and defensive skills and concepts, analyze intercollegiate and professional game film and learn intercollegiate and professional rules.

1 Unit
54 Lab hours

KINA 206
Off Season Women's Intercollegiate Volleyball Training

Prerequisite: Participation in Intercollegiate Athletics
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for the advanced volleyball student inter-

ested in competing at the collegiate level. Instruction will focus on advanced techniques in serving, passing, setting, hitting, plus jump serving, jump set, jump attack, various defensive patterns and team play training and conditioning. Special attention will be placed on preparing students for intercollegiate competition. This course may be repeated three times for credit.

1 Unit
54 Lab hours

KINA 207
Badminton II

Prerequisite: KINA 107 or instructor approval for admission
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment;
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This is an intermediate level badminton class designed for the student to develop the ability to make appropriate responses (relative on their own abilities) to the particular problems posed by the game. Advanced instruction is given in the basic strokes as well as the introduction of Indonesian serve, around-the-head shot, hairpin and flick shot.

1 Unit
54 Lab hours

KINA 209
Soccer II

Prerequisite: KINA 109
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: CSU
This advanced soccer activity class is designed for all students interested in developing the physical, technical and tactical elements of the game of soccer. The course will include analysis of fundamental skills, game strategy, team offense and team defense through participation and an overview of rules. This is an advanced soccer class designed to take the student beyond recreational skills. Team tactics, strategies and systems of play will be emphasized.

1 Unit
54 Lab hours

KINA 211
Off Season Intercollegiate Tennis

Prerequisite: Participation in Intercollegiate Sports
Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)*
This course is designed for the advanced tennis student interested in competing at the collegiate level. Instruction will focus on training and

conditioning, and will also include advanced strategies, on court drilling and match play experience. Special attention will be placed on preparing students for intercollegiate competition. This course may be repeated three times for credit.

1 Unit
54 Lab hours

KINA 213 **Golf II**

Prerequisite: KINA 113
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC (credit limit*), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)
Golf II is designed for the intermediate to advanced golfer who wants take their golf game beyond basic fundamentals. Every year thousands of people choose golf as their favorite sports activity. Once learned, golf becomes an enjoyable lifetime recreation. Golf II students will build on the skills learned in Golf I. A major portion of class time is spent on the golf course applying the techniques learned in Golf I.

1 Unit
54 Lab hours

KINA 217 **Swimming II**

Advisory: READ 043 or appropriate assessment; KINA 117
Transfers to: UC (credit limit*), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)
This is an intermediate class designed to provide the individual with the opportunity to learn the elements of good swimming. Students will sharpen their technique in the basic strokes learned in Swim I. Basic components of distance training will be covered along with conditioning methods. Safety and rescue skills are also included.

1 Unit
54 Lab hours

KINA 218 **Swimming III**

Transfers to: UC (credit limit*), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)
This is an advanced swimmer's class designed to provide the individual with the opportunity to master the coordination of six swimming strokes in order to swim effectively with ease, endurance, and versatility in the water. More advanced safety and rescue skills are also included.

1 Unit
54 Lab hours

KINA 230 **Lifelong Fitness Center II - Cardiovascular Fitness**

Prerequisite: KINA 130 or PE 130
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment
Transfers to: UC (credit limit*), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)

This class is a course designed to give the student skills and information to improve their own cardiovascular fitness. This class will involve instruction and practice in techniques that will promote cardiovascular fitness: running, jump rope, core training, aerobic activity, aerobic circuit and resistance bands. The student will learn about the importance of blood pressure, heart rate and diet in relation to cardiovascular disease.

1 Unit
54 Lab hours

KINA 258 **Yoga II**

Prerequisite: KINA 158
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfer to: UC, CSU

This course is designed for intermediate students who would like to advance their physical asanas (poses) of Hatha Yoga as well as Pranayama (breathing techniques) and Dhyana (meditation techniques). The goal of the course is to integrate the mind, body, and spirit and to further challenge the students in their physical practice by increasing sustainment, perfecting alignment, and by incorporating twists and wraps. Parivrtta Trikonasana, Prasara Padotanasana, Malasana, Garudasana, Natasajasana, Utthita Hasta Padangustasana, Chaturanga Dandasana, Purvottanasana, Navasana, Virasana, Ustrasana, Matsyasana, Sarvangasana, Surya Namaskar B will be covered in depth during the course.

1 Unit
54 Lab hours

KINA 270 **Women's Intercollegiate Basketball Team II**

Prerequisite: KINA 170
Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit*), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's basketball during conference play. This class is offered for 11

consecutive weeks to run concurrent with the intercollegiate basketball season as determined by the CCCAA governing body. Students will be required to spend a minimum of 7.36 hours a week for 11 weeks preparing for competition with conference colleges. This course may be repeated three times for credit.

1.5 Units
81 Lab hours

KINA 281 **Men's Intercollegiate Basketball Team II**

Advisory: READ 022 or appropriate assessment
Transfers to: UC (credit limit*), CSU (*The UC will grant a maximum of 4 units credit for KINA activity courses)
This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's basketball during conference and post season play. This class is offered for 11 consecutive weeks to run concurrent with the intercollegiate basketball season as determined by the CCCAA governing body. Students will be required to spend a minimum of 7.36 hours a week for 11 weeks preparing for competition with conference colleges. This course may be repeated three times for credit.

1.5 Units
81 Lab hours

LANDSCAPE

Division of Career & Technical Education

LAND 101 **Introduction to Landscape Design & Maintenance**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; ENGT 101
Transfers to: CSU

This introductory landscape design course is designed for the non-scientist and specifically for the amateur garden enthusiast interested in learning landscape design from a landscape professional. The course is a general overview of landscape design which include topics of landscape design, planting and irrigation design, plant identification, cost analysis, and maintenance. The class sessions are a combination lecture, hands-on planting and irrigation design lessons and plant identification. A field trip to a local nursery or demonstration garden is planned for the semester.

3 Units
45 Lecture hours
27 Lab hours

LAND 102
Introduction to Landscape Architecture & Design

Prerequisite: ENGT 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ENGT 105

Transfers to: CSU

This introductory course is for students interested in the field of Landscape Architecture or Landscape Design. Fundamental principles and concepts essential to landscape design development will be introduced through lectures, readings, discussions, field trips, and assignments. Natural and human determinants that shape the landscape will be explored in addition to the study of the theory, history, and role of the landscape architecture profession in environmental design.

4 Units

54 Lecture hours

54 Lab hours

LAND 103
Landscape Architecture Theory and Form

Prerequisite: LAND 102

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; ENGT 105

Transfers to: CSU

This is a continuation course to LAND 102, Introduction to Landscape Architecture and Design. This course expands upon fundamental landscape design principles and concepts. The course examines theory and methods pertaining to landscape architecture design and site planning. Study and design of landscape will be conducted from small local scale to larger regional scale through in-class assignments, multi-week projects, model-making, and readings. Comprehension of topography and design of landform through 2D and 3D model studies will also be included.

4 Units

54 Lecture hours

54 Lab hours

LAND 121
Introduction to the History of Landscape Architecture

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course will cover Landscape Architecture/Design history from Prehistory to the 21st Century with an emphasis on utilizing a visual reference of historic landscapes which capture the exuberance of landscape design. As an art form, a designed landscape is a cultural product, representing the ideas and values of its creator, owner, or patron, and situated within social, economic, and political environments. Information

is unique in its design focus, chronological organization, and visual organization. This course is open to all students at Rio Hondo College wanting to broaden their knowledge of significant Landscape Architectural history.

3 Units

54 Lecture hours

LAND 299
Directed Study in Landscape Design

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Landscape Design beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

LATIN

Division of Communications & Languages

LATN 101

Latin I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

Latin I introduces students to the classics, enhances their understanding of basic grammar, exposes them to authentic pronunciation, increases their knowledge of vocabulary derivatives, and acquaints them with Roman history and culture. This class is designed for students who plan to major in Classics, History, Philosophy, or Languages and would also be important for those going into law, medicine, and other fields where Latinate terminology is common.

3 Units

54 Lecture hours

LATN 102

Latin II

Prerequisite: LATN 101

Transfers to: UC, CSU

Latin II increases students' understanding of the classics, enhances their understanding of grammar and vocabulary, exposes them to authentic pronunciation, increases their knowledge of vocabulary derivatives, and acquaints them further with Romance languages and the Latinate vocabulary of English. The history and culture of the Roman Empire, including the spread of the Empire, institutions, literature, and the arts will be further explored. This class is designed for students who plan to major in Classics, History, Philosophy, or Languages and would also be important for those going into law, medicine, and other fields where Latinate terminology is common.

3 Units

54 Lecture hours

LIBRARY

Division of Library & Instructional Support

LIB 101

Fundamentals of Library Research

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 100A

Transfers to: UC, CSU

This course promotes information literacy by introducing students to the resources available in an academic library, including books, online catalogs, online databases, and Web sources. Students learn how to define their research problem, apply appropriate search tools, analyze and evaluate information and search strategies, and use information ethically and legally. The critical thinking skills and research strategies learned in this class will benefit students who need to find information for college-level research assignments, career demands, and lifelong learning.

3 Units

54 Lecture hours

LITERATURE

Division of Communications & Languages

LIT 102 (C-ID ENGL 120)

Approaches to Literature

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 102 or LIT 102H)

This course is designed for students who wish to study the four general literary forms: poetry, drama, short story, and novel. Emphasis will be

placed on critical thinking, critical reading, and composing. Compositions will be based upon discussion, analysis and interpretations of literature, and upon the relationship of Western and Non-Western literature to contemporary thought.

3 Units

54 Lecture hours

LIT 102H (C-ID ENGL 120)

Approaches to Literature Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 102 or LIT 102H)

This course is designed for students who wish to study the four general literary forms: poetry, drama, short story, and novel. Emphasis will be placed on critical thinking, critical reading, and composing. Compositions will be based upon discussion, analysis and interpretations of literature, and upon the relationship of Western and Non-Western literature to contemporary thought. This course is intended for students eligible for the Honors Program.

3 Units

54 Lecture hours

LIT 112A (C-ID ENGL 130)

American Literature

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 112A or LIT 112AH)

This course explores a range of American literature, with a focus on major texts and writers from the early settlement to 1865. Representative writers include Bradstreet, Bradford, Franklin, Douglass, Paine, Lincoln, Emerson, Thoreau, Poe, Melville, and Dickinson. Course reading and writing assignments explore major cultural and historical themes, including the pre-colonial exploration of the Americas, Native American literary contributions, the Revolutionary and Civil Wars, transcendentalism, and romanticism. This course is designed for students interested in exploring various genres of literature, students interested in learning more about cultural expression in the Americas, and students majoring in English or Liberal Studies.

3 Units

54 Lecture hours

LIT 112AH (C-ID ENGL 130)

American Literature Honors

Prerequisite: ENGL 101; READ 043 or appropriate assessment

Corequisite: ENGL 101 for new students
Transfers to: UC, CSU (Students will

receive credit for only one of the following courses: LIT 112A or LIT 112AH)

This course explores a range of American literature, with a focus on major texts and writers from the early settlement to 1865. Representative writers include Bradstreet, Bradford, Franklin, Douglass, Paine, Lincoln, Emerson, Thoreau, Poe, Melville, and Dickinson. Course reading and writing assignments explore major cultural and historical themes, including the pre-colonial exploration of the Americas, Native American literary contributions, the Revolutionary and Civil Wars, transcendentalism, and romanticism. This course is designed for students interested in exploring various genres of literature, students interested in learning more about cultural expression in the Americas, and students majoring in English or Liberal Studies. This course is designed for students eligible for the honors program.

3 Units

54 Lecture hours

LIT 112B (C-ID ENGL 135)

American Literature

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 112B or LIT 112BH)

This course is designed for students interested in exploring American literature from the mid-nineteenth century to the present. It introduces students, through class discussions and written essays, to representative writers of this period such as Emily Dickinson, Mark Twain, Edith Wharton, Robert Frost, Zora Neale Hurston, William Faulkner, Ernest Hemingway, Tennessee Williams, Lorraine Hansberry, Henry David Hwang, Toni Morrison, Leslie Marmon Silko, Maxine Hong Kingston, Milcha Sanchez-Scott, and others.

3 Units

54 Lecture hours

LIT 112BH (C-ID ENGL 135)

American Literature Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 112B or LIT 112BH)

This course is designed for students interested in exploring American literature from the mid-nineteenth century to the present. It introduces students, through class discussions and written essays, to representative writers of this period such as Emily Dickinson, Mark Twain, Edith Wharton, Robert Frost, Zora Neale Hurston, William Faulkner, Ernest Hemingway, Tennessee Williams,

Lorraine Hansberry, Henry David Hwang, Toni Morrison, Leslie Marmon Silko, Maxine Hong Kingston, Milcha Sanchez-Scott, and others. This course is intended for students eligible for the Honors Program.

3 Units

54 Lecture hours

LIT 114 (C-ID ENGL 180)

Children's and Adolescent Literature

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to children's and adolescent literature in its three general literary forms: the short story (including myths, legends, fairy tales, and folk tales), the novel, and poetry. Stress is placed upon critical thinking, critical reading, and composing. This course will explore works of children's literature from ancient times to the present, analyze the literary elements of these works, assess their value for both children and adults, and examine the historical and cultural environments in which they were written, including but not limited to Asian, Latino, Native American, and African cultures. This course is beneficial for English majors, students planning to transfer to a university, parents, and future elementary and secondary teachers.

3 Units

54 Lecture hours

LIT 114H (C-ID ENGL 180)

Children's and Adolescent Literature Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to children's and adolescent literature in its three general literary forms: the short story (including myths, legends, fairy tales, and folk tales), the novel, and poetry. Stress is placed upon critical thinking, critical reading, and composing. This course will explore works of children's and adolescent literature from ancient times to the present, analyze the literary elements of these works, assess their value for both children and adults, and examine the historical and cultural environments in which they were written, including but not limited to Asian, Hispanic, Native American, and African cultures. This course is beneficial for English majors, students planning to transfer to a university, parents, and future elementary and secondary teachers. This course is designed for students eligible for the honors program.

3 Units

54 Lecture hours

LIT 117**Mexican Literature in Translation**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course explores a range of Mexican literature in English translation, with a focus on major literary influences and achievements from the pre-Hispanic era to the twentieth century. Course reading and writing assignments explore indigenous literatures and myths, chronicles of the Spanish conquest, literature of the colonial period, high culture and folklore of the eighteenth century, political and modernist literature of the nineteenth century, and poetry and prose of the twentieth century. This course is designed for students interested in exploring various genres of literature, students interested in learning more about Mexican cultural expression, and students majoring in Chicano Studies.

3 Units**54 Lecture hours****LIT 117H****Mexican Literature in Translation Honors**

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course explores a range of Mexican literature in English translation, with a focus on major literary influences and achievements from the pre-Hispanic era to the twentieth century. Course reading and writing assignments explore indigenous literatures and myths, chronicles of the Spanish conquest, literature of the colonial period, high culture and folklore of the eighteenth century, political and modernist literature of the nineteenth century, and poetry and prose of the twentieth century. This course is designed for students interested in exploring various genres of literature, students interested in learning more about Mexican cultural expression, and students majoring in Chicano Studies. This course is intended for students eligible in the honors program.

3 Units**54 Lecture hours****LIT 130****Women and Literature**

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course explores women writers, their lives, the roles they play in culture and society, and how they have influenced the world. Students will examine topics such as female

authorship, literary influence, evolution of technique, the effects of race and class, and the environments in which works were written, including but not limited to American, British, Asian, Hispanic, Native American, and African cultures. Stress is placed on critical thinking, critical reading, and composing. Feminist, literary, and political theory will be explored. Special emphasis may be placed on a period, genre, theme, or literary grouping. This course is beneficial for English majors, students planning to transfer to a university, and anyone interested in learning about women and literature.

3 Units**54 Lecture hours****LIT 130H****Women and Literature Honors**

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course explores women writers, their lives, the roles they play in culture and society, and how they have influenced the world. Students will examine topics such as female authorship, literary influence, evolution of technique, the effects of race and class, and the environments in which works were written, including but not limited to American, British, Asian, Hispanic, Native American, and African cultures. Stress is placed on critical thinking, critical reading, and composing. Feminist, literary, and political theory will be explored. Special emphasis may be placed on a period, genre, theme, or literary grouping. This course is beneficial for English majors, students planning to transfer to a university, and anyone interested in learning about women and literature. This course is intended for students eligible for the honors program.

3 Units**54 Lecture hours****LIT 140****Introduction to the Novel**

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 140 or LIT 140H)

This course introduces students to a variety of approaches to the novel. Course readings will focus on novels selected from different historical periods and within a variety of cultural traditions. Students will gain an understanding of the features that distinguish the novel as a literary genre: narrative structure, point of view, character development, setting, theme, style, imagery and symbol.

This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study.

3 Units**54 Lecture hours****LIT 140H****Introduction to the Novel Honors**

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 140 or LIT 140H)

This course introduces students to a variety of approaches to the novel. Course readings will focus on novels selected from different historical periods and within a variety of cultural traditions. Students will gain an understanding of the features that distinguish the novel as a literary genre: narrative structure, point of view, character development, setting, theme, style, imagery and symbol. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study. This course is intended for students eligible for the honors program.

3 Units**54 Lecture hours****LIT 141****Introduction to Poetry**

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course introduces students to a variety of approaches to poetry. Course readings will include poems on diverse topics representing the fundamental modes, historical periods, and cultural traditions. Students will gain an understanding of the features that distinguish poetry as a literary genre, including techniques of sound, tropes and figurative language, and thematic development. The course is appropriate for both English majors and those students who wish to expand their knowledge and appreciation of poetry.

3 Units**54 Lecture hours****LIT 142****Introduction to Shakespeare**

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for students who wish to increase their knowledge and appreciation of Shakespeare's art, his life and times, and his exploration

of the human condition. The major works of Shakespeare are explored in the context of the dramatic genre, the Elizabethan theater, and the social, religious, and political milieu of Renaissance England. Representative tragedies, comedies, histories, romances, poetry, and the sonnet cycle are studied.

3 Units

54 Lecture hours

LIT 142H

Introduction to Shakespeare Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students who wish to increase their knowledge and appreciation of Shakespeare's art, his life and times, and his exploration of the human condition. The major works of Shakespeare are explored in the context of the dramatic genre, the Elizabethan theater, and the social, religious, and political milieu of Renaissance England. Representative tragedies, comedies, histories, romances, poetry, and the sonnet cycle are studied. This course is intended for students eligible for the Honors Program.

3 Units

54 Lecture hours

LIT 143

Exploring Authors

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This one-unit course is designed for students who wish to study the literary works of one author in depth. Students will compare and contrast all genres and literary criticism of the author's works in class discussions and in essay form. Students should consult the class schedule for the author selection as it varies each semester.

1 Unit

18 Lecture hours

LIT 143H

Exploring Authors Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This one-unit course is designed for students who would like the opportunity to study the literary works of one author in depth. Students will compare and contrast the author's works in class discussions and in essay form. Students should consult the class schedule for the author selection as it varies each semester. This course may be taken once and repeated two times for credit. This course is

designed for students eligible for the Honors Program.

1 Unit

18 Lecture hours

LIT 144A (C-ID ENGL 140)

World Literature

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces students to a wide range of world literature from antiquity, the Middle Ages, and the Renaissance. Although the emphasis is on continental literature and Western civilization, the course may include significant works from African, Asian, Middle Eastern, and/or Latin American traditions. Course reading and writing assignments emphasize literary periods and literary history, the different genres of literary expression, and literature as a reflection of major cultural events and beliefs. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study.

3 Units

54 Lecture hours

LIT 144B (C-ID ENGL 145)

World Literature

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces students to a wide range of world literature from the seventeenth century to the present. Although the emphasis is on continental literature and Western civilization, the course may include significant works from African, Asian, Middle Eastern, and/or Latin American traditions. Course reading and writing assignments emphasize the European Enlightenment, romanticism, realism, modernism, and literature as a reflection of major cultural events and beliefs. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study. LIT 144A need not be taken before LIT 144B.

3 Units

54 Lecture hours

LIT 145

Introduction to the Short Story

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

(Students will receive credit for only one of the following courses: LIT 145 or LIT 145H)

This course is designed for students interested in exploring short fiction from a variety of different periods and traditions in order to increase appreciation, understanding, and enjoyment of its various forms and techniques. Students will compare and contrast authors' works in writing and class discussion. The course emphasizes the short story as a genre from the Nineteenth century to the present.

3 Units

54 Lecture hours

LIT 145H

Introduction to the Short Story Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: LIT 145 or LIT 145H)

The course is designed for students interested in exploring short fiction from a variety of different periods and traditions in order to increase appreciation, understanding, and enjoyment of its various forms and techniques. Students will compare and contrast authors' works in writing and class discussion. The course emphasizes the short story as a genre from the Nineteenth century to the present. This course is designed for students eligible for the honors program.

3 Units

54 Lecture hours

LIT 146A (C-ID ENGL 160)

British Literature

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students who are interested in learning about British literature from the Old English period to the beginning of the nineteenth century. The following major British writers will be discussed: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, Boswell, Fielding, and others.

3 Units

54 Lecture hours

LIT 146AH (C-ID ENGL 160)

British Literature Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students who are interested in learning about British literature from the Old English period to the beginning of the nineteenth century. The following major British writers will be discussed: Chaucer, Spenser, Shakespeare,

Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, Boswell, Fielding, and others. This course is designed for students eligible for the Honors Program.

3 Units
54 Lecture hours

LIT 146B (C-ID ENGL 165)

British Literature

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students interested in learning about British literature written from the beginning of the nineteenth century to the present. The following major British writers will be discussed: Austen, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, Eliot, and others.

3 Units
54 Lecture hours

LIT 146BH (C-ID ENGL 165)

British Literature Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students interested in learning about British literature written from the beginning of the nineteenth century to the present. The following major British writers will be discussed: Austen, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, Eliot, and others. This course is designed for students eligible for the Honors Program.

3 Units
54 Lecture hours

LIT 147

Cinema as Literature

Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for students interested in learning about the aesthetics of film making, especially with regard to adaptation of literature to the cinematic medium. Films will be analyzed and evaluated according to their historical, social, cultural, aesthetic, and technical significance. Both American and international film making will be covered.

3 Units
54 Lecture hours

LIT 148

Introduction to Dramatic Literature

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment

Transfers to: UC, CSU

This course introduces students to a wide range of dramatic literature, from the plays of ancient Greece to contemporary drama. Students will study plays from representative literary periods and dramatists such as Sophocles, Christopher Marlowe, Moliere, Chekhov, Tennessee Williams, Samuel Beckett, Susan Glaspell, Lorraine Hansberry, Arthur Miller, Luis Valdez, August Wilson, and/or others chosen by the instructor. Course reading and writing assignments emphasize dramatic form and structure, the aesthetics of drama, and drama as a reflection of major cultural events and beliefs.

This course is designed for students interested in a detailed exploration of a specific genre of literature, students intending to major in a literary or arts-related field of study, and students intending to enter the teaching profession.

3 Units
54 Lecture hours

LIT 149

Introduction to Chicana/Chicano Literature

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course explores a range of Chicana/Chicano literature, with a focus on major texts from 1848 to the present. Course reading and writing assignments explore major cultural themes, including identity issues. Assigned readings may be from a variety of genres including essays, poetry, fiction, oral histories, corridos, and autobiography by writers throughout the Southwest. This course is designed for students interested in exploring various genres of literature, students interested in learning more about Chicana/o cultural expression, and students majoring in Chicano Studies.

3 Units
54 Lecture hours

LIT 299

Directed Study: Literature

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic

arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units
54 to 162 Lab hours

LOGISTICS

Division of Business

LOG 101

Supply Chain Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. The course presents the tools and techniques for the design and improvement of any supply chain, through the optimal use of information, materials, and technology to improve efficiency and reduce costs. The student will examine the processes for planning, sourcing, making, delivering, and returning products in order to integrate suppliers and customers into an organization's supply chain. The student will receive an overview of career opportunities within the logistics and supply chain management field.

3 Units
54 Lecture hours

LOG 105

Purchasing Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. This course explores the basic purchasing func-

tions including establishing purchasing requirements and quantities, developing purchasing policies and procedures, receiving acceptable goods, arranging for packaging and shipping, managing inventory control, and the integration of the purchasing activities with other business functions.

3 Units

54 Lecture hours

LOG 110

Warehouse Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. This course provides the essential skills for warehouse managers, with emphasis on the planning, protection, productivity, and quality control functions in warehouse and distribution operations. Topics include warehouse design and layout, effective communications, industry terminology, technology, distribution systems, inventory management and protection, accountability, auditing, and safety rules and regulations. This course is intended for students seeking a career in logistics or supply chain management.

3 Units

54 Lecture hours

LOG 115

Inventory Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. The course reviews the concepts and techniques available for planning and controlling inventories. The student will examine methods to determine the appropriate amount of inventory to carry; the relationship between inventory as a physical asset and an accounting asset; the difference between raw material, work-in-process, and finished goods inventories; controlling the physical locations of inventory; recognizing and analyzing inventory dysfunctions; bar code technologies; and protecting inventory from natural, technological, and man-made disasters.

3 Units

54 Lecture hours

LOG 120

Transportation Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of traffic management principles and techniques that facilitate distribution of the world's commerce. Topics covered in the course include analysis of the major forms of transportation, such as motor, rail, air, water, pipeline, inter-modal, and international; the integration of transportation forms into a distribution system; carrier management and selection, including rate structures, scheduling, outsourcing, private fleet operations, and transportation customers; government regulations on tariffs; and transportation of hazardous materials.

3 Units

54 Lecture hours

LOG 125

Contract Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of the legal and regulatory requirements applicable to contracts for product transportation and logistics functions and considerations for drafting and negotiating contracts with freight carriers, warehousemen and other logistics service providers.

2 Units

36 Lecture hours

LOG 130

Computerized Logistics

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of the need and use of computers in the supply chain and logistics industry and an introduction to the software that is available, such as enterprise resource planning, demand planning, and warehouse management.

3 Units

54 Lecture hours

LOG 135

Quality Management Concepts

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment; CIT 042; LOG 101

Transfers to: CSU

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of the basic principles, objectives, and policies of a quality management program. Topics include the implementation of continuous quality improvement and the understanding of the various quality philosophies, such as Deming's 14 points, process management, ISO 9000 certification, Six Sigma efforts, the Baldrige award criteria, and an introduction to statistical process control.

3 Units

54 Lecture hours

MANAGEMENT

Division of Business

MGMT 052

Business Mathematics

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment.

This course consists of the fundamental operations of business which are mathematical in application. Topics covered include percent, payroll, mathematics of buying and selling, simple and compound interest, annuities, business and consumer loans, taxes and insurance, depreciation, financial statements, and business statistics. This course provides solid preparation for students going on to further study in accounting, management, marketing, retailing, real estate, or office administration.

3 Units

54 Lecture hours

MGMT 101 (C-ID BUS 110)

Introduction to Business

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who has an interest in a career in business. Topics cover business operations, strategies for both domestic and international markets, economic factor, legal regulations, management, leadership, marketing, financial operations, accounting controls, and e-commerce. This course will count toward a business

certificate or degree in business and will transfer to a four-year school.

3 Units

54 Lecture hours

MGMT 105

Elements of Supervision

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101
Transfers to: CSU

This course is designed for the student who is considering a career in management and is seeking an entry-level career position with a company in retailing, industry, or the government. This course examines the role of the first-line manager and/or supervisor within the organization and emphasizes the application of management functions in effective supervision. Topics include an overview of management principles in direct and straightforward terms, critical concepts and insights into real world practice and challenges.

3 Units

54 Lecture hours

MGMT 108

Business Writing

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 050
Transfers to: CSU

The course covers the principles of effective writing in business. Extensive experience is provided using the different forms of business writing—memorandums, letters, reports, and resumes. Cultural differences and their impact on communicating in business will be studied. This course is designed for students pursuing careers in business.

3 Units

54 Lecture hours

MGMT 120

Human Relations in Business

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101
Transfers to: CSU

This course is designed for the student who is seeking a career in management or is currently in a leadership role and wants a better understanding of human relation skills and techniques. Topics covered in the course include leadership, teamwork, communication, group problem solving, diversity, motivation, and managerial organizations. These topics will apply to both a diverse and competitive environment.

3 Units

54 Lecture hours

MGMT 125

Managerial Computer Applications

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment; MGMT 101
Transfers to: CSU

This course provides students with an introduction to computer technology as it applies to the business management environment. Course curriculum has been designed to prepare managers to leverage current technology, in both theory and application, to meet the needs of the global business environment. Managerial issues and ethical standards are explored along with web-based hands-on modules which prepare students to become proficient in MS Word, MS Excel, and MS PowerPoint.

3 Units

54 Lecture hours

MGMT 130

Small Business

Management-Entrepreneurship

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101
Transfers to: CSU

This course is designed for those students interested in small business, either in a domestic or international market. Topics include start-up methods and techniques, management and operations, marketing, financing and cash management, location strategies, personnel practices, buying and selling strategies, and e-commerce. This course will also provide students with an opportunity to develop a business plan as it pertains to their small business interest.

3 Units

54 Lecture hours

MGMT 140

Introduction to International Business

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide students with a global perspective of business and acquaint students with the relationship of culture, politics, laws, and economics to operation in today's complex global business environment. The subjects covered will include international trade and finance, confidentiality and privacy, international marketing, and international human resources management. This course is designed for students looking for entry-level positions in the field of international business.

3 Units

54 Lecture hours

MGMT 141

International Marketing

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide students with an in-depth study of

international marketing. International market opportunities and the determination of marketing objectives will also be explored. The students will evaluate the marketing research data and analyze selected approaches that affect the marketing mix for specific markets to coordinate strategies in global world markets. This course is designed for the marketing-oriented students and those interested in furthering their knowledge and understanding of international business.

3 Units

54 Lecture hours

MGMT 142

International Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide students with a comprehensive overview of the management practice as it relates to international business. An emphasis will be placed on the planning, problem solving, organizational structure, human resource management, and production management as it relates to international competition. These functions of management will all be evaluated and examined under international competitive situations and cross cultural boundaries. This course is designed for international business majors and those interested in furthering their knowledge of business culture, strategy and behavior issues in the global context.

3 Units

54 Lecture hours

MGMT 143

Import and Export Business

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed to provide students who want to start or expand their own import and export business or professionals who seek to enter their career advancement and to do business overseas successfully. The course covers major practical applications, from understanding the objectives of parties involved in importing and exporting to the basics of letters of credit, packaging, transporting and shipments, role of banks and freight forwarders, foreign currency management, and documents used in international trade.

3 Units

54 Lecture hours

MGMT 144

International Banking and Finance

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

The introductory course provides an understanding of international finance, international banking, monetary systems, sources of funds, methods of payments and methods for assessing financial risk. It includes an understanding and appreciation of the relationship between government (international, national, and local) and international banks. The course is designed for students who want to enter the International Finance/Banking field or for those who wish to further their knowledge and understanding of International Banking & Finance.

3 Units

54 Lecture hours

MGMT 146

Human Resources Management

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed for the student who wants to study employer-employee relationships with particular emphasis on the challenges facing an expanding multicultural workforce in Southern California. Topics include: legal framework; personnel policies and procedures; implementing equal employment and affirmative action; legal aspects of supervision; training and development; interviewing; testing; wage and salary administration, job analysis and description; recruitment; transfers; promotions; and principles of collective bargaining.

3 Units

54 Lecture hours

MGMT 150

Principles of Management

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MGMT 101
Transfers to: CSU

This course is designed for the student who is seeking a career in management or for the student who needs to expand his/her knowledge of management techniques and organizational methods. In this course, students will learn the theory and application of managerial functions as it applies to planning, organizing, leading, and controlling organizations. Additional topics to be covered will include the history of management, and practical management techniques, practices, and problem solving methodologies. The topics of employee empowerment, characteristics and qualities of successful managers, and contemporary trends in management will also be explored in this course.

3 Units

54 Lecture hours

MGMT 155

Principles of Leadership

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is intended for professionals who want to develop an understanding of leadership principles. The course explores the differences between leadership and management, the approaches used to define leadership, and methods used to assess leadership behavior. Various instruments for assessing leadership are examined and discussed. Other topics examined include leadership in teams and leadership of change initiatives.

3 Units

54 Lecture hours

MGMT 160

Principles of Project Management

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033; CIT 101
Transfers to: CSU

This course develops the project management skills needed to define, plan, lead, monitor, and complete projects in any type of industry. Specific topics include managing project integration, scope, time, cost, quality, human resources, communications, risks, and procurement. In addition, the five phases of a project are explored; initiating, planning, executing, controlling, and closing. This course is intended for professionals who want to learn or improve the skills of project management.

3 Units

54 Lecture hours

MGMT 162

Project Cost & Schedule Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 101
Transfers to: CSU

This course is intended for students seeking a career in project management. Time, cost, and budget estimates are the basis for project control. This course explores the tools and techniques used to estimate project tasks, costs, and resources, and monitor performance against those estimates over the life of the project.

2 Units

36 Lecture hours

MGMT 164

Project Risk Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 101
Transfers to: CSU

This course is intended for students seeking a career in project management. Managing project risk depends

upon developing an understanding of the sources of problems in projects, and then working to minimize threats and maximize opportunities wherever feasible. This course explores the tools and techniques used to plan risk management, identify risks, perform qualitative and quantitative risk analysis, plan risk responses, and monitor and control risk responses.

2 Units

36 Lecture hours

MGMT 166

Project Management Practicum

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; CIT 101
Transfers to: CSU

This course is intended for students seeking a career in project management. This is a hands-on capstone course providing students with practice in the five project management process groups and the nine knowledge areas. Students will simulate a project based on case studies. The case studies will require the completion of project planning documents under typical business constraints. The case studies will be completed in a team environment.

2 Units

36 Lecture hours

MGMT 208 (C-ID BUS 115)

Business Communications

Prerequisite: ENGL 101
Transfers to: CSU

This course covers the principles of effective writing in business. Extensive experience is provided using the different forms of business writing—memorandums, letters, reports, and resumes. Cultural differences and their impact on communicating in business will be studied. This course satisfies the business communications component for the Associate in Science in Business Administration for Transfer Degree.

3 Units

54 Lecture hours

MGMT 290

Cooperative Work Experience/Internship for Business Management Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond

the conditions of regular employment. This course is intended for students whose job is related to the field of Business Management and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

MGMT 299

Directed Study: Management

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

MARKETING

Division of Business

MRKT 170

Elements of Marketing

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101
Transfers to: CSU

This course is designed for the student who is interested in a career in marketing or gaining an entry-level marketing position with a retail, industrial, service, or consumer product company. Discussion of marketing concepts, strategies, and techniques will take place in an environment that reflects new technologies and international competitiveness. The topics in the course will include marketing concepts, functions, operations, and organizations of retail and wholesale enterprises; distribution channels; market research; advertising; marketing costs; pricing; cooperative marketing, marketing legislation and regulations and trends.

3 Units

54 Lecture hours

MRKT 171

Consumer Behavior

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101

Transfers to: CSU

This class investigates and analyzes the reasons why consumers select, purchase, use, and dispose of goods and services to satisfy their personal and household needs. Topics to be explored include consumer culture, group influence, consumption patterns, and consumer attitudes and lifestyles as well as other relevant topics. This class is appropriate for the marketing major and anyone who wants to know why people buy.

3 Units

54 Lecture hours

MRKT 172

Advertising and Promotion

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101

Transfers to: CSU

This course is designed to introduce students to the creative and competitive field of advertising and promotion. Course content includes understanding the target audience, developing marketing and advertising plans, engaging in the creative process through strategy and execution, and integrating marketing communications elements as they relate to personal selling, sales promotion, direct marketing, and electronic, digital, and print media. This course is appropriate for the marketing major or anyone interested in advertising and promotion.

3 Units

54 Lecture hours

MRKT 173

Principles of Selling

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student interested in a sales position or those currently in the sales field needing further training or hoping to transition to a management or marketing manager position. The course will focus on relationship selling and developing productive selling environments. In addition, prospecting techniques, approach strategies, presentation and demonstration skills, overcoming selling objections, and closing techniques will provide the core of the material covered in this course.

3 Units

54 Lecture hours

MRKT 174

Small Business Marketing and Advertising

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101

Transfers to: CSU

This class provides useful and effective marketing and advertising tools and techniques to those students who have or would like to own a small business. A special emphasis is placed on the fundamentals of marketing and guerilla marketing and advertising techniques. Topics for discussion will include marketing plan strategies, marketing research, marketing channel management, retail and pricing strategies, and cost-effective guerilla advertising techniques for small businesses.

3 Units

54 Lecture hours

MRKT 175

Retail Management

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MGMT 101

Transfers to: CSU

This course is designed for the student pursuing a career in retail management or desiring to own their own retail business. Class discussions will explore the topics of customer buying behavior, retail market strategy, retail site location, and human resources management. Case studies and experiential exercises will be used to help students understand additional topics including customer service, store management, retail pricing, supply chain management, and merchandise management.

3 Units

54 Lecture hours

MASS COMMUNICATIONS

Division of Communications & Languages

MSCM 103

Survey of Motion Picture, Radio and Television

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MSCM 103 or MSCM 128)
 This course presents a broad survey of the history, theory, aesthetic principles, and production techniques used in the making of motion pictures, radio, and television programs. Students will view or listen to numerous television shows, motion pictures, films, and radio programs in order to become familiar with various production techniques and methods of critically evaluating media presentations. Guest lecturers and field trips to film, TV shows, and radio studios may be scheduled.
3 Units
54 Lecture hours

MSCM 128 (C-ID JOUR 100)

Mass Media in Modern Society

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MSCM 103 or MSCM 128)
 This course in mass media surveys the history, format, laws, and significant contributors in American mass communications. Through projects and readings, students research and discuss such issues as free press, fair trial, foreign communications systems, and the relationship between free media and a democratic society.
3 Units
54 Lecture hours

MSCM 134

Documentary Film

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment
Transfers to: UC, CSU
 This is an inquiry into the origin, purpose, development, and current trends of the documentary (non-fiction) film. The class will view and critique the great documentaries ranging from Nanook of the North to Woodstock. The future of the medium in business, government, education, and television will also be discussed.
3 Units
54 Lecture hours

MATHEMATICS

Division of Mathematics, Sciences, and Engineering

MATH 020

Basic Mathematics

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.
 This course is designed for students who need a review of the basic principles and skills of arithmetic. The general areas of review are: Operations with whole numbers and fractions; operations with decimals and proportional thinking; percent problems and applications to percent. Students may enroll in MATH 020 in a lecture section for three units of credit or in individual one-unit modules: MATH 020A, 020B, and 020C in

the Math and Science Center (MSC). Modularized courses in the MSC must be taken sequentially over a maximum period of 24 months. This is a non-degree credit course.
3 Units
54 Lecture hours

MATH 020A

Basic Mathematics A

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.
 This course is designed for students who need a review of the basic principles and skills of arithmetic. See MATH 020 for more information.
1 Unit
18 Lecture hours

MATH 020B

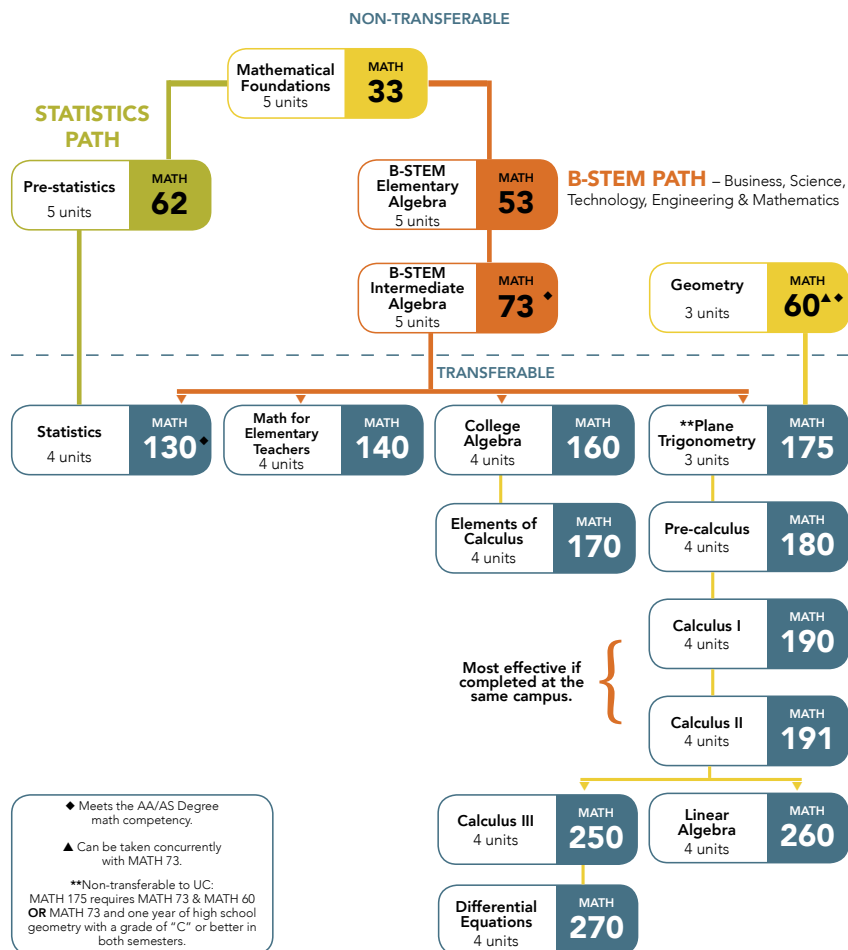
Basic Mathematics B

Prerequisite: MATH 020A
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or

RIO HONDO COLLEGE

MATH PATHWAYS

It is very important to consult with a counselor before choosing a path.
 Initial math course is determined by a placement assessment process.



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appropriate assessment; Individual modules to be taken in sequence.

This course is designed for students who need a review of the basic principles and skills of arithmetic. See MATH 020 for more information.

1 Unit
18 Lecture hours

MATH 020C **Basic Mathematics C**

Prerequisite: MATH 020B
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.

This course is designed for students who need a review of the basic principles and skills of arithmetic. See MATH 020 for more information.

1 Unit
18 Lecture hours

MATH 030 **Prealgebra**

Prerequisite: MATH 020 or MATH 020C or appropriate assessment
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. The course strengthens the student's arithmetic and informal geometry skills, provides an introduction to the abstractions of algebra using fundamental principles of rational numbers, order of operations, and solving linear equations. Students may enroll in MATH 030 in a lecture section for four units of credit, or individual one-unit modules: MATH 030A, 030B, 030C, and 030D in the Math and Science Center (MSC) or online. Modularized courses in the MSC must be taken sequentially over a maximum period of 24 months.

4 Units
72 Lecture hours

MATH 030A **Prealgebra A**

Prerequisite: MATH 020 or MATH 020C or appropriate assessment
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

1 Unit
18 Lecture hours

MATH 030B **Prealgebra B**

Prerequisite: MATH 030A
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

1 Unit
18 Lecture hours

MATH 030C **Prealgebra C**

Prerequisite: MATH 030B
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

1 Unit
18 Lecture hours

MATH 030D **Prealgebra D**

Prerequisite: MATH 030C
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

1 Unit
18 Lecture hours

MATH 033 **Mathematical Foundations**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course combines topics from both Basic Math and Prealgebra, including operations with whole numbers, integers, fractions, decimals, rates, ratios, and proportional thinking, percent problems and applications to percents, and an introduction to algebraic thinking using fundamental principles of expressions and solving linear equations. This course serves as a foundational course for all students.

5 Units
90 Lecture hours

MATH 033A **Mathematical Foundations - A**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is the first half of a modularized version of MATH 033. It combines topics from both Basic Math and Prealgebra, including operations with whole numbers, integers, fractions, and decimals. This course serves as a foundational course for all students. Students must pass MATH 033A in order to register for MATH 033B. Students must complete MATH

033A and MATH 033B within a maximum period of 24 months.

2.5 - Units
45 - Lecture hours

MATH 033B **Mathematical Foundations - B**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is the second half of a modularized version of MATH 033. This course combines topics from both Basic Math and Prealgebra, including rates, ratios, and proportional thinking, percent problems and applications to percent, and an introduction to algebraic thinking using fundamental principles of expressions and solving linear equations. This course serves as a foundational course for all students. Students must pass MATH 033A in order to register for MATH 033B. Students must complete MATH 033A and MATH 033B within a maximum period of 24 months.

2.5 - Units
45 - Lecture hours

MATH 049 **Introduction to MESA**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This standalone one-unit course is designed for students entering the Mathematics, Engineering, Science Achievement (MESA) and/or TRIO Student Support Services STEM Program. The course will introduce the student to the Science-Technology-Engineering-Mathematics (STEM) career paths, transfer and graduation requirements, effective STEM study skills, priority and time management, as well as the importance of participating in internships and appropriate extracurricular activities. Students are expected to be concurrently enrolled in at least one mathematics or science course in order to apply skills covered in this course.

1 Unit
18 Lecture hours

MATH 050 **Elementary Algebra**

Prerequisite: MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. Topics include: numbers and their properties, operations with real numbers, exponents, solutions and graphs

of linear equations, slopes of lines, systems of linear equations and applications, operations with polynomials including factoring, solving quadratic equations, operations with simple rational and radical expressions. Students may enroll in MATH 050 in a lecture section for four units of credit, or individual one-unit modules: MATH 050A, 050B, 050C, and 050D in the Math and Science Center (MSC) or online. Modularized courses in the MSC sections must be taken sequentially in the MSC over a maximum period of 24 months.

4 Units
90 Lecture hours

MATH 050A **Elementary Algebra A**

Prerequisite: MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

1 Unit
22.5 Lecture hours

MATH 050B **Elementary Algebra B**

Prerequisite: MATH 050A or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

1 Unit
22.5 Lecture hours

MATH 050C **Elementary Algebra C**

Prerequisite: MATH 050B or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

1 Unit
22.5 Lecture hours

MATH 050D **Elementary Algebra D**

Prerequisite: MATH 050C or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

1 Unit
22.5 Lecture hours

MATH 053 **B-STEM Elementary Algebra**

Prerequisite: MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is designed for students who need to learn the fundamentals of algebra. It is designed primarily for students who plan to major in Business, Science, Technology, Engineering, or Math (B-STEM). This course consists of topics including solutions and graphs of linear equations and inequalities, slopes of lines, systems of linear equations and applications, operations with polynomials, including factoring and solving quadratic equations.

5 Units
90 Lecture hours

MATH 053A **B-STEM Elementary Algebra - A**

Prerequisite: MATH 030 or MATH 030D or MATH 033 or MATH 033B or appropriate skill level as determined by participation in the math placement process.

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is the first half of a modularized version of MATH 053. This course is designed for students who need to learn the fundamentals of algebra. It is designed primarily for students who plan to major in Business, Science, Technology, Engineering, or Math (BSTEM). This course consists of topics including solutions and graphs of linear equations and inequalities, and slopes of lines. Students must pass MATH 053A in order to register for MATH 053B. Students must complete MATH 053A and MATH 053B within a maximum period of 24 months.

2.5 - Units
45 - Lecture hours

MATH 053B **B-STEM Elementary Algebra - B**

Prerequisite: MATH 053A

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is the second half of a modularized version of MATH 053. This course is designed for students who need to learn the fundamentals of algebra. It is designed primarily for students who plan to major in Business, Science, Technology, Engineering, or Math (B-STEM). This course consists of topics including systems of linear equations and applications, operations with polynomials including factoring and solving quadratic equations. Students must pass MATH 053A in order to register for MATH 053B. Students must complete MATH 053A and MATH 053B within a maximum period of 24 months.

2.5 - Units
45 - Lecture hours

MATH 060 **Geometry**

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 030 or ENLA 024 or appropriate assessment; READ 043 or appropriate assessment

This course is an introduction to the elements of geometry, including points, lines, planes, and angles. These elements are used in conjunction with triangles, polygonal and circular figures in both two and three dimensional configurations. Formulas for computing lengths, areas, and volumes are presented through the use of applications. This course is intended for students who have not had or completed two semesters of high school geometry or who need a refresher prior to taking trigonometry, technology courses, mathematics for elementary teachers or other courses with a geometry prerequisite.

3 Units
54 Lecture hours

MATH 062 **Pre-Statistics**

Prerequisite: MATH 030 or MATH 030D or MATH 033 or MATH 033B, or appropriate assessment

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course surveys a variety of mathematical topics needed to prepare students for college-level statistics. Topics include: data analysis using ratios, rates, and proportional reasoning, graphical and tabular displays of data, measures of central tendency and spread, computing probabilities, describing associa-

tions of two variables graphically, graphing equations of lines and linear models, and solving linear equations and inequalities. Pre-Statistics is designed for students in majors, such as those in liberal arts, humanities, and social sciences. It should not be taken by students majoring in science, technology, engineering, math or business. This course does not satisfy the math requirement for an AA/AS degree at Rio Hondo College.

5 Units

90 Lecture hours

MATH 070

Intermediate Algebra

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU if taken prior to the Fall Semester, 1988

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. This course is a study of linear and quadratic equations and inequalities, systems of linear equations, polynomials, exponents and radicals, relations and functions, graphs of functions, exponential and logarithmic expressions and their applications. Students may enroll in MATH 070 in a lecture section for four units of credit or in individual one-unit modules: MATH 070A, 070B, 070C, and 070D in the Math and Science Center (MSC) or online. Modularized courses in the MSC must be taken sequentially over a maximum period of 24 months.

4 Units

90 Lecture hours

MATH 070A

Intermediate Algebra A

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU if taken prior to the Fall Semester, 1988

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

1 Unit

22.5 Lecture hours

MATH 070B

Intermediate Algebra B

Prerequisite: MATH 070A or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU if taken prior to the Fall Semester, 1988

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

1 Unit

22.5 Lecture hours

MATH 070C

Intermediate Algebra C

Prerequisite: MATH 070B or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU if taken prior to the Fall Semester, 1988

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

1 Unit

22.5 Lecture hours

MATH 070D

Intermediate Algebra D

Prerequisite: MATH 070C or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU if taken prior to the Fall Semester, 1988

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

1 Unit

22.5 Lecture hours

MATH 073

B-STEM Intermediate Algebra

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college-level transferable course. It is designed primarily for students who plan to major in Business, Science, Technology, Engineering, or Math (B-STEM). This course consists of topics including radical and rational expressions and equations, complex absolute value

equations and inequalities, relations and functions, synthetic division, graphs of functions, exponential and logarithmic expressions and their applications, as well as complex numbers.

5 Units

90 Lecture hours

MATH 073A

B-STEM Intermediate Algebra - A

Prerequisite: MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate skill level as determined by participation in the math placement process.

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is the first half of a modularized version of MATH 073. It is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college-level transferable course. It is primarily for students who plan to major in Business, Science, Technology, Engineering, or Math (B-STEM). This course consists of topics including radical and rational expressions and their applications as well as complex numbers. Students must pass Math 073A in order to register for Math 073B. Students must complete MATH 073A and MATH 073B within a maximum period of 24 months.

2.5 - Units

45 - Lecture hours

MATH 073B

B-STEM Intermediate Algebra - B

Prerequisite: MATH 073A or appropriate skill level as determined by participation in the math placement process.

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

This course is the second half of a modularized version of MATH 073. It is designed for students who have completed MATH 073A before proceeding to a college-level transferable course. It is primarily for students who plan to major in Business, Science, Technology, Engineering, or Math (B-STEM). This course consists of topics including quadratic equations, relations and functions, graphs of functions, exponential and logarithmic expressions and their applications. Students must pass MATH 073A in order to register for MATH 073B. Students must complete MATH 073A and MATH 073B within a maximum period of 24 months.

2.5 - Units

45 - Lecture hours

MATH 130 (C-ID MATH 110)
Statistics

Prerequisite: MATH 062 or MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate assessment
Advisory: ENGL 101 or appropriate assessment; READ 101 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 130 or MATH 130H)
This course is designed for students majoring in business, social sciences, and life sciences. This course provides an overview of descriptive and inferential statistics. The students learn to read, interpret and present data in a well-organized way. This includes frequency distributions, graphs, measures of central tendency and variability, correlation and linear regression. While discussing inferential statistics, the students learn to make generalizations about populations. This includes probability, sampling techniques, confidence intervals, and hypothesis tests.

4 Units
72 Lecture hours

MATH 130H (C-ID MATH 110)
Statistics Honors

Prerequisite: MATH 062 or MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate assessment;
Minimum GPA of 3.0; ENGL 101
Advisory: READ 101 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 130 or MATH 130H)
This course is designed for students majoring in business, social sciences, and life sciences. This course provides an overview of descriptive and inferential statistics. The students learn to read, interpret and present data in a well-organized way. This includes frequency distributions, graphs, measures of central tendency and variability, correlation and linear regression. While discussing inferential statistics, the students learn to make generalizations about populations. This includes probability, sampling techniques, confidence intervals, and hypothesis tests. This course is intended for students who meet Honors Program requirements.

4 Units
72 Lecture hours

MATH 140 (C-ID MATH 120)
Mathematics for Elementary Teachers

Prerequisite: MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate assessment
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed to deepen and extend the student's under-

standing of the foundations of the mathematics taught in elementary school. Because it is intended for the student preparing to teach at that level, it frequently refers to and uses materials and methodology appropriate for students at that level, but it is not a methods course. The course is concept-driven with an emphasis on problem solving. Concrete manipulatives are used to give meaning to abstract mathematical concepts. Topics include numeration and place value concepts, models and algorithms for operations with whole numbers, integers, fractions and decimals, and the structure and properties of the real number system.

4 Units
72 Lecture hours

MATH 141
Mathematics for Elementary Teachers

Prerequisite: MATH 060 and MATH 140
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

MATH 141 is a continuation of MATH 140. Topics include probability, statistics, informal geometry in two and three dimensions, coordinate geometry, measurement, similarity, tessellations, constructions, and an introduction to Euclidean geometry. Manipulatives and appropriate technology are used as tools for exploration and problem solving. This course is intended for elementary education majors planning to teach in elementary or middle schools.

4 Units
72 Lecture hours

MATH 160 (C-ID MATH 150)
College Algebra

Prerequisite: MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate assessment
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 160 or MATH 165 or MATH 180)

This course will cover linear, quadratic, polynomial, power, exponential, and logarithmic functions and their applications from a graphical, numerical, and analytical point of view. The course also will cover systems of equations and inequalities and sequences and series. The course serves as preparation for students planning to take Elements of Calculus (MATH 170). Graphing technology will be required.

4 Units
72 Lecture hours

MATH 170 (C-ID MATH 140)
Elements of Calculus

Prerequisite: MATH 160 or appropriate assessment
Advisory: ENGL 101; READ 101
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 170, MATH 190, or MATH 190H)

This is a one-semester course in the fundamentals of algebra-based calculus and its applications to the fields of business, economics, social sciences, biology and technology. Course topics include graphing of functions, applications of derivatives and integrals of functions including polynomials, rational, exponential and logarithmic functions, multi-variable derivatives and differential equations.

4 Units
72 Lecture hours

MATH 175 (C-ID MATH 851)
Plane Trigonometry

Prerequisite: MATH 060 and MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate assessment
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is designed for students who are majoring in math, science, and engineering. It equips students with the skills necessary for success in precalculus. This course presents the concepts of plane trigonometry using a functions approach. Included is a study of trigonometric functions, their inverses and their graphs, identities and proofs related to trigonometric expressions, trigonometric equations, solving right triangles, solving triangles using the Law of Cosines and the Law of Sines, polar coordinates, and an introduction to vectors.

3 Units
72 Lecture hours

MATH 180 (C-ID MATH 155)
Pre-Calculus

Prerequisite: MATH 175 or appropriate assessment
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment
Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 160 or MATH 165 or MATH 180)

This course is designed to prepare students for the study of calculus. It presents a comprehensive study of linear, quadratic, polynomial, exponential, logarithmic, rational, and trigonometric functions. Inequalities, introductory analytical geometry, polar coordinates, polar equations and their graphs, DeMoivre's Theorem and an introduction to sequences

are also included. This course is a prerequisite for MATH 190.

4 Units

72 Lecture hours

**MATH 190
(C-ID MATH 210, MATH 900S)**

Calculus I

Prerequisite: MATH 180 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 170, MATH 190 or MATH 190H)

MATH 190 is a semester course designed primarily for those students planning to pursue programs in engineering, mathematics, computer science, and physical sciences. This is the first course in differential and integral calculus of a single variable. It includes topics in functions, limits and continuity, techniques and applications of differentiation and integration, and the Fundamental Theorem of Calculus.

4 Units

90 Lecture hours

MATH 190H (C-ID MATH 900S)

Calculus I Honors

Prerequisite: MATH 180 or appropriate assessment; ENGL 101 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: MATH 170, MATH 190 or MATH 190H)

MATH 190H is a semester course designed primarily for those students planning to pursue programs in engineering, mathematics, computer science, and physical sciences. This is the first course in differential and integral calculus of a single variable. It includes topics in functions, limits and continuity, techniques and applications of differentiation and integration and the Fundamental Theorem of Calculus.

4 Units

90 Lecture hours

**MATH 191
(C-ID MATH 900S and MATH 220)**

Calculus II

Prerequisite: MATH 190 or MATH 190H or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment

Transfers to: UC, CSU

MATH 191 is a semester course which continues the study of calculus begun in MATH 190. The course includes techniques of integration, improper integrals, anti-derivatives, applications of the definite integral,

differential equations, Taylor polynomials, series, polar equations and parametric equations. This course is the second course of the calculus sequence required of engineering, physics, and mathematics majors.

4 Units

90 Lecture hours

MATH 250 (C-ID MATH 230)

Calculus III

Prerequisite: MATH 191

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment

Transfers to: UC, CSU

This course involves a study of functions of two or more variables using the principles of calculus, vector analysis, and parametric equations. Included is a study of solid regions using partial differentiation, vector analysis, and multiple integration. This course also includes a study of vector calculus topics, such as line and surface integrals, Green's Theorem, Stokes' Theorem, and the Divergence Theorem. This is the third course of the calculus sequence required of engineering, physics, and mathematics majors.

4 Units

90 Lecture hours

MATH 260 (C-ID MATH 250)

Linear Algebra

Prerequisite: MATH 191

Transfers to: UC, CSU

This course is an introductory study of linear algebra with applications to problems in the physical and social sciences. It includes the solution of systems of linear equations, matrix algebra with inverses, determinants, vectors and vector spaces, linear transformations, Eigenvalues and Eigenvectors, orthogonality and diagonalization. This course is required for Engineering, Physics, Computer Science and Mathematics majors.

4 Units

72 Lecture hours

MATH 270 (C-ID MATH 240)

Differential Equations

Prerequisite: MATH 250

Transfers to: UC, CSU

This course is a study of ordinary differential equations with applications in the physical and social sciences. The course includes a study of linear and nonlinear first-order differential equations, linear higher order differential equations, systems of differential equations, power series solution of differential equations, and Laplace transforms. This course is a continuation of MATH 190, MATH 191, and MATH 250 and is required for all Engineering, Physics, and Mathematics majors.

4 Units

72 Lecture hours

MATH 299

Directed Study: Mathematics

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester.

Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

MUSIC

Division of Arts & Cultural Programs

MUS 101 (C-ID MUS 110)

Fundamentals of Music

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is a course designed for the student interested in the fundamentals of music theory. Included in this class will be a study of basic notation, rhythm reading, major and minor scale construction, simple musical analysis and basic chord construction.

3 Units

54 Lecture hours

MUS 103

Music Theory I

Corequisite: MUS 106

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course, through guided composition and analysis, incorporates the following concepts: rhythm and meter; basic properties of sound; intervals; diatonic scales and triads; diatonic chords, basic cadential formulas and phrase structure; dominant seventh; figured bass symbols; and non-harmonic tones. Development of skills in handwritten notation is expected.

3 Units
54 Lecture hours

MUS 104
Music Theory II

Prerequisite: MUS 103
Corequisite: MUS 107
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course incorporates the concepts from Music Theory I. In addition, through guided composition and analysis, the course will include: an introduction to two-part counterpoint; voice leading involving four-part chorale writing; diatonic harmony; and an introduction to secondary/applied chords and modulation.

3 Units
54 Lecture hours

MUS 105
Music Theory III

Prerequisite: MUS 104
Corequisite: MUS 156
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course incorporates the concepts from Music Theory II. In addition, through writing and analysis, the course will include: introduction to chromatic harmony; secondary/applied chords; modulation; borrowed chords; introduction to Neapolitan and augmented-sixth chords.

3 Units
54 Lecture hours

MUS 106 (C-ID MUS 125)
Musicianship I

Corequisite: MUS 103
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for the student who wants to develop beginning aural skills, sight-reading, sight-singing, as well as dictation and rhythmic interpretation skills. It is recommended for all instrumentalists, singers and composers and required of all music majors.

1 Unit
9 Lecture hours
27 Lab hours

MUS 107
Musicianship II
Prerequisite: MUS 106

Corequisite: MUS 104
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for the student who wants to develop the rhythmic, melodic, and harmonic materials of Music Theory II through ear training, sight singing, analysis, and dictation. This course is required of all music majors.

1 Unit
9 Lecture hours
27 Lab hours

MUS 109
**Contemporary Theory:
Popular and Jazz Harmony**

Prerequisite: MUS 101
Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for the student who wants to learn the basic concepts associated with constructing chords, the song forms, and the melodies that are identified with Popular and Jazz styles in contemporary music.

3 Units
54 Lecture hours

MUS 110
College Community Orchestra

Advisory: MUS 101
Transfers to: UC, CSU

This course is designed for the instrumental music student who wants to become familiar with the vast body of orchestral music. It provides players an opportunity to develop their own musical capabilities as well as participating in ensemble playing. Students are expected to provide their own instruments. This course may be taken once and repeated three times for credit.

1 Unit
54 Lab hours

MUS 116
Diverse Instruments Ensemble

Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for electric and acoustic instrumental, and vocal students, at a beginning and intermediate level, to perform together in one ensemble. The ensemble content will be arranged for the instrumental and vocal makeup of the class and will include a diversity of styles that might include Latin, Asian, popular and contemporary classical music.

1 Unit
13.5 Lecture hours
13.5 Lab hours

MUS 117
**Music Ensemble for Diverse
Instruments II**

Prerequisite: MUS 116

Transfers to: UC, CSU

This course is designed for the intermediate electric, acoustic instrumental and vocal students to perform together in one ensemble. The ensemble content, which will depend upon the instrumental and vocal makeup of the class, will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

2.5 Units
27 Lecture hours
54 Lab hours

MUS 119
**Advanced College Community
Orchestra**

Prerequisite: MUS 110
Transfers to: CSU

This course is designed for the more advanced instrumental music student who wants to become more familiar with the vast body of orchestral music. It provides advanced players an opportunity to further develop their own musical capabilities as well as participate in ensemble playing. Students are expected to provide their own instruments. This course may be taken once and repeated three times for credit.

1 Unit
54 Lab hours

MUS 120
Concert Choir I

Advisory: READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for the student who seeks an opportunity to perform in a vocal ensemble. Participation in public performance is required. The repertoire will include a diversity of selections including classical choral literature, world music, popular and contemporary music. This course may be taken for credit up to four times for a total of 4 units.

1 Unit
9 Lecture hours
27 Lab hours

MUS 121
Gospel Choir

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MUS 120
Transfers to: UC, CSU

Gospel choir is a college chorus of mixed voices dedicated to the study, rehearsal, and public performance of anthems, spirituals, and gospel (traditional/contemporary) music. It is designed for the student seeking to learn the fundamentals of singing in the African-American contemporary gospel style. This class provides for the learning of the fundamentals of choral singing. Performances both on and off campus will assist in the

development of skills necessary for proficiency.

2 Units

27 Lecture hours

27 Lab hours

MUS 129

Music in Latin American Culture

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a survey course designed for the student seeking an introduction to music in Latin American culture. The course will focus on the diverse musical cultures of South America, Central America, Mexico, Puerto Rico and the Caribbean.

Emphasis will be placed on rhythmic styles and structures, as well as, specific social, cultural, and historical backgrounds.

3 Units

54 Lecture hours

MUS 130

Music History and

Literature Before 1750

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who seeks an introduction to the major composers and musical movements from antiquity to the 1700's. The course focuses on learning, reasoning, and writing about these periods with the goal of understanding their social, political, and cultural contexts. In addition, these periods will be compared to contemporary culture and its social, political, and cultural framework.

3 Units

54 Lecture hours

MUS 131

Music History and Literature After 1750

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who seeks an introduction to the major composers and musical movements from 1750 to the present. The course focuses on learning, reasoning, and writing about these periods with the goal of understanding their social, political, and cultural contexts. In addition, these periods will be compared to contemporary culture and its social, political, and cultural framework.

3 Units

54 Lecture hours

MUS 132

History of Rock and Roll

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment

Transfers to: UC, CSU

This course is a survey course designed for the student who seeks an introduction to Rock and Roll.

The course will focus on rock and roll music, its origins and its many sub-styles. The social, political and economic influence the music has had on society and other types of music will also be examined.

3 Units

54 Lecture hours

MUS 133 (C-ID MUS 100)

Music Appreciation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a survey of musical practices from various periods of music history with an emphasis on social, political and commercial contexts. Types of music to be covered will include Classical, Jazz, Rock, Blues and World Music. This course is targeted for students seeking to fulfill the general education requirement in the arts.

3 Units

54 Lecture hours

MUS 134

Chamber Singers

Advisory: READ 043 or appropriate assessment; MUS 120

Transfers to: CSU

This course is designed for students who seek to broaden their understanding of choral literature by performing increasingly difficult choral works. Attention is given to the refinement and polishing of technique through rehearsal and performance of choral music from various musical periods and styles. Enrollment criteria include an audition. This course may be taken up to four times for a total of 4 units.

1 Unit

13.5 Lecture hours

13.5 Lab hours

MUS 135

Music in Film

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a survey of the art and craft of film music as practiced by prominent film composers and sound designers. Emphasis will be placed on history and function from 1930 to the present, as well as cultural context. The class is designed for students interested in learning how music influences film.

3 Units

54 Lecture hours

MUS 136

History of Jazz

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is a survey course designed for the student who seeks an introduction to Jazz. The course will focus on jazz music, its origins and its many sub-styles. The social, political and economic influence the music has had on society and other types of music will also be examined.

3 Units

54 Lecture hours

MUS 138

Masterworks Chorale

Prerequisite: Audition

Advisory: ENGL 030 or ENLA 034 or appropriate assessment

Transfers to: UC, CSU

This advanced level course is designed for students who seek to broaden their understanding of choral literature by performing difficult choral works such as the B minor Mass by Bach, Elijah by Mendelssohn, or Messiah by Handel accompanied by orchestra or other instrumental ensemble. Attention is given to the refinement and polishing of technique through rehearsal and performance of choral music from various musical periods and styles. Public Performance is required. Enrollment criteria requires an audition.

2 Units

27 Lecture hours

27 Lab hours

MUS 139

Advanced Concert Choir

Prerequisite: MUS 220

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the more advanced vocal student who seeks an opportunity to perform in a vocal ensemble. The repertoire will include a diversity of approaches that might include Latin, Asian, popular, contemporary, and classical music.

2 Units

27 Lecture hours

27 Lab hours

MUS 140

Beginning Voice I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students who wish to learn the foundation skills of singing including breath support, posture, intonation, enunciation, and stage presence. Students will prepare songs appropriate for

the beginning skill level. No previous musical experience is necessary.

1.5 Units

18 Lecture hours

27 Lab hours

MUS 141

History of Rap Music and Hip Hop Culture

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course will explore the roots of rap music and hip-hop culture from its African bardic tradition to African-American expressive/oral traditions. In addition, it will locate rap in the context of hip-hop and as a part of a continuum of American popular music. This course is designed for the student who seeks to expand their knowledge of rap music and the hip hop culture.

3 Units

54 Lecture hours

MUS 142

Intermediate Voice I

Prerequisite: MUS 140

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students who wish to further develop the techniques acquired in Beginning Voice. A comprehensive study of style and artistic interpretation will be included.

1.5 Units

18 Lecture hours

27 Lab hours

MUS 145

Piano I

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This class is for the student interested in beginning piano skills, and in the understanding of music through the study of simple piano pieces. The development of skills at the beginning level may be used in the playing of various styles including Classical, Pop, Jazz and Rock. Individual pieces are performed in class. No previous experience is necessary.

1 Unit

18 Lecture hours

MUS 146

Piano II

Prerequisite: MUS 145

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This class is for the student interested in beginning piano skills, and in the understanding of music through the study of simple piano pieces. The development of skills at the begin-

ning level may be used in the playing of various styles including Classical, Pop, Jazz and Rock. Individual pieces are performed in class. This course is a continuation of materials learned in Piano I.

1 Unit

18 Lecture hours

MUS 147

Piano III

Prerequisite: MUS 146

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students seeking to broaden their knowledge and understanding of piano literature. Varied works of intermediate difficulty will be introduced. Attention is given to the refinement and polishing of technique through scales, arpeggios, sight-reading, interpretation and tone production.

1 Unit

18 Lecture hours

MUS 148

Piano IV

Prerequisite: MUS 147

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students seeking to broaden their knowledge and understanding of piano literature. More advanced solo literature of intermediate difficulty will be introduced. Emphasis is placed on the technical and interpretive demands required to perform a varied repertoire.

1 Unit

18 Lecture hours

MUS 150

Beginning Guitar

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student interested in beginning guitar skills and in the understanding of music through the study of simple guitar pieces. The development of skills at the beginning level may be used in the playing of various styles including Classical, Pop, Jazz, Rock and Blues. No previous musical experience is necessary.

1.5 Units

18 Lecture hours

27 Lab hours

MUS 151

Intermediate Guitar

Prerequisite: MUS 150

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This intermediate level course is

designed for students who seek to broaden their understanding of guitar literature by performing moderately difficult works. Attention is given to the refinement and polishing of technique through scales, arpeggios, sight-reading, interpretation and tone production.

1.5 Units

18 Lecture hours

27 Lab hours

MUS 154

Guitar Ensemble

Prerequisite: Must have completed at least one semester of guitar

Transfers to: UC, CSU

This course will offer the opportunity for guitarists, electric or acoustic, to perform together in an ensemble. The ensemble content will depend upon the makeup of the class and will include a diversity of approaches that might include Latin, Asian, Popular and Classical Music. Recommended for guitarist whether they be music majors or not.

2 Units

27 Lecture hours

27 Lab hours

MUS 156

Musicianship III

Prerequisite: MUS 107

Corequisite: MUS 105

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wants to develop the rhythmic, melodic, and harmonic materials of Music Theory III through ear training, sight singing analysis and dictation. This course is required of all music majors.

1 Unit

9 Lecture hours

27 Lab hours

MUS 157

Musicianship IV

Prerequisite: MUS 156

Corequisite: MUS 206

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wants to develop the rhythmic, melodic, and harmonic materials of Music Theory IV through ear training, sight singing, analysis, and dictation. This course is required of all music majors.

1 Unit

9 Lecture hours

27 Lab hours

MUS 158

Masterworks Chorale II

Prerequisite: MUS 138 and Audition

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This advanced level course is designed for students who seek in-depth study of choral literature by performing complex choral works such as Beethoven's Mass in C, Orff's Carmina Burana, and Britten's War Requiem accompanied by orchestra or other instrumental ensemble, or sung a cappella. Attention is given to every detail of musical development through rehearsal and performance of choral music from various musical periods and styles. Public performance is required. Enrollment criteria requires successful completion of MUS 138 and an audition.

2 Units

27 Lecture hours

27 Lab hours

MUS 165 (C-ID CMUS 110)

Electronic Music I

Corequisite: MUS 180

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to learn the basic elements involved in electronic music including: fundamental elements of music, keyboard electronics, signal processing, virtual synthesis which may include Sylenth, Crystal, and Gladiator, MIDI, simple computer software which may include Garage Band, and digital recording. Creating electronic compositions will also be covered. Students should take Music 180 concurrently. This course is recommended for all students who intend to pursue music professionally.

3 Units

36 Lecture hours

54 Lab hours

MUS 167

Electronic Music II

Prerequisite: MUS 165

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to continue the study of concepts and techniques needed to compose electronic music and is recommended for students who intend to pursue music professionally. Various types of synthesis including software analog synthesis and virtual analogue synthesis will be studied. Software that will be used in the course may include Reason and Logic Pro. Sequencing, recording via studio software, notating compositions and creating music for dance and theatre on the computer will be the primary focus of the course.

3 Units

36 Lecture hours

54 Lab hours

MUS 168

Electronic Music III

Prerequisite: MUS 167

Transfers to: CSU

This course is designed for the advanced electronic music student who wants to continue the study of concepts and techniques needed to compose electronic music and is recommended for students who intend to pursue music professionally. Assignments in the course will include scoring music to stop-time animation and motion picture scenes available on the internet. Advanced notation techniques including full score and individual parts will also be covered.

3 Units

36 Lecture hours

54 Lab hours

MUS 178

Masterworks Chorale III

Prerequisite: MUS 158 and Audition

Advisory: ENGL 030 or ENLA 034 or appropriate assessment

Transfers to: UC, CSU

This advanced level course is designed for students who seek in-depth study of choral literature by performing complex choral works such as Bach sacred and secular cantatas, Mozart and Haydn masses, renaissance madrigals and sacred pieces, and contemporary choral works accompanied by orchestra or other instrumental ensemble, or sung a cappella. Attention is given to every detail of musical development through rehearsal and performance of choral music. Public performance is required. Students are expected to take on leadership roles as section leaders, mentors to new singers, and committee work for the choral organization. Enrollment criteria requires successful completion of MUS 158 and an audition.

2 Units

27 Lecture hours

27 Lab hours

MUS 180

Music Laboratory

Corequisite: MUS 165 or 167

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed to provide students enrolled in electronic music courses with supervised study or practice.

1 Unit

54 Lab hours

MUS 181 (C-ID MUS 160)

Applied Music

Prerequisite: Audition

Corequisite: Enrollment in a Rio Hondo College Large Ensemble (either MUS 116 or MUS 117 or MUS 120 MUS or 220 or MUS 134 or MUS 138 or MUS 139

or MUS 216 or MUS 217 or MUS 234)

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for the student interested in receiving individual instruction in voice, piano, guitar, band, or orchestral instruments with an assigned instructor. Emphasis will be placed on study at the beginning level of technique and repertoire. Weekly, it includes one recital class, and one individual lesson. Performance for a faculty jury will be required at the end of the semester. This course may be taken for credit up to four times for a total of 2 units.

0.50 Unit

9 Lecture hours

MUS 206

Music Theory IV

Prerequisite: MUS 105

Corequisite: MUS 157

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants an introduction to the materials and the major trends and movements of the 20th- and 21st Centuries. Students will gain techniques for motivic and harmonic analysis, improvisation, and listening strategies for addressing this repertoire, and will both compose and perform as a class works following the models of masterworks of the last 100 years.

3 Units

54 Lecture hours

MUS 216

Industrial Orchestra

Prerequisite: Successful audition with instructor approval required prior to enrollment to demonstrate proficiency of entry skills

Advisory: MUS 116, READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the advanced electric, acoustic instrumental, and vocal students to broaden their abilities to perform in an ensemble as well as record in the studio. The ensemble content will be arranged for the instrumental and vocal makeup of the class and will include a diversity of styles that include contemporary classical, popular, film and video game music, and electroacoustic music. Rio Hondo composition students may also arrange and compose for this performance group.

2 Units

27 Lecture hours

27 Lab hours

MUS 217
Advanced Music Ensemble for Diverse Instruments II

Prerequisite: MUS 216

Transfers to: UC, CSU

This course is designed for the advanced electric, acoustic instrumental, and vocal students who want to interpret and perform ensemble repertoire at a professional level. The course content, which will depend upon the instrumental and vocal makeup of the class, will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

2.5 Units

27 Lecture hours

54 Lab hours

MUS 220
Concert Choir II

Prerequisite: MUS 120

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the intermediate vocal student who seeks an opportunity to perform in a vocal ensemble. Participation in public performance is required. The repertoire will include a diversity of sections including intermediate level classical choral literature, world music, popular and contemporary music. Successful completion of MUS 120 is required to enroll.

2 Units

27 Lecture hours

27 Lab hours

MUS 234
Advanced Chamber Singers

Prerequisite: MUS 134

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students with advanced skills in rehearsing and performing choral music. A wide variety of music selected from different musical periods and styles will be selected for study and performance. Enrollment criteria includes successful completion of MUS 134. This course may be taken up to four times for a total of 8 units.

2 Units

27 Lecture hours

27 Lab hours

MUS 240
Advanced Voice I

Prerequisite: MUS 142

Advisory: READ 043 or appropriate assessment

This course is designed for students interested in further developing the interpretive and technical demands inherent in advanced vocal performance. Attention is given to a detailed study and analysis of vocal

technique and interpretation. Public performance will be required.

2 Units

27 Lecture hours

27 Lab hours

MUS 245
Advanced Piano

Prerequisite: MUS 148

Transfers to: UC, CSU

This course is designed for the student interested in further developing the interpretive and technical demands inherent in advanced piano literature. Attention is given to a detailed study and analysis of various musical periods and styles.

2 Units

27 Lecture hours

27 Lab hours

MUS 251
Advanced Guitar I

Prerequisite: MUS 151

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This advanced level course is designed for students who seek to broaden their understanding of guitar literature by performing difficult works. Attention is given to the refinement and polishing of technique through scales, arpeggios, sight-reading, interpretation, and tonal production, as well as analysis of various musical periods and styles.

2 Units

27 Lecture hours

27 Lab hours

MUS 252
Advanced Guitar II

Prerequisite: MUS 251

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This advanced level course is designed for students who wish to improve their technique and skills by performing more difficult works. It is essentially a continuation of MUS 251, Advanced Guitar I. The scales, chord progressions, pieces and etudes assigned will be selected to advance the student's technique, and repertoire from various periods and styles.

2 Units

27 Lecture hours

27 Lab hours

MUS 290
Cooperative Work Experience/Internship for Music Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business, industrial, non-profit, studio, community

and professional music organizations under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of music and have completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

MUS 299
Directed Study: Music

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

MUSIC TECHNOLOGY

Division of Arts & Cultural Programs

MUST 101

Introduction to Music Technology

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to learn the basics of music technology, focused on basic acoustics, digital audio, Musical Instrument Digital Interface (MIDI), and MIDI sequencing and notation software. Lab activities will place an emphasis on the operation and components of the typical MIDI and digital audio lab (hardware and software). Students will complete independent projects in areas such as digital audio, music notation, and MIDI sequencing.

3 Units

36 Lecture hours

54 Lab hours

MUST 115

Songwriting and Arranging I

Prerequisite: MUS 103 and MUST 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to learn the process of songwriting. Songs will be analyzed on chord structure, form, rhythm, melody, harmony, and lyrics. Original compositions and performances are expected from all students.

3 Units

36 Lecture hours

54 Lab hours

MUST 116

Songwriting and Arranging II

Prerequisite: MUST 115 or MUS 104

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to further their knowledge of the process of songwriting and arranging. Complex songs and advanced song forms will be analyzed on chord structure, form, rhythm, melody, harmony, and lyrics. Additional emphasis on the creation of lead sheets as well as the proper presentation of a score and parts for strings and horn sections. Original compositions, recordings, and performances are expected from all students.

3 Units

36 Lecture hours

54 Lab hours

MUST 121

Electronic Music I

Prerequisite: MUST 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to gain an understanding of the processes and tools available to the modern electronic musician. While using the most up-to-date software, learn to record, arrange, mix, produce, and polish your music. Topics include synthesis, sampling, and Musical Instrument Digital Interface (MIDI) sequencing. Compositions are expected of students utilizing electronic music techniques.

3 Units

36 Lecture hours

54 Lab hours

MUST 122

Electronic Music II

Prerequisite: MUST 121

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to continue the study of concepts and techniques needed to compose electronic music and is recommended for students who intend to pursue music professionally. Various types of synthesis including software analog synthesis and virtual analog synthesis will be studied. Software that will be used in the course may include Logic Pro and Ableton Live. Sequencing, recording via studio software, notating compositions and creating music for video games and animation, dance, and theatre will be the primary focus of the course.

3 Units

36 Lecture hours

54 Lab hours

MUST 123

Electronic Music III

Prerequisite: MUST 122

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the advanced electronic music student who wants to continue the study of concepts and techniques needed to compose electronic music and is recommended for students who intend to pursue music professionally. Assignments in the course will include scoring music to animation and motion picture scenes. Advanced notation techniques including full score and individual parts will also be covered.

3 Units

36 Lecture hours

54 Lab hours

MUST 141

Recording Studio I

Prerequisite: MUST 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to learn to make high-quality recordings using a wide array of tools and techniques. Emphasis will be placed on Digital Audio Workstation (DAW) sound recording, editing, and mixing processes through hands-on experience. Students will collaborate to produce recordings within several musical genres.

3 Units

36 Lecture hours

54 Lab hours

MUST 142

Recording Studio II

Prerequisite: MUST 141

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who will continue the study of recording studio techniques, signal flow using an analog console, and advanced ensemble microphone techniques. Students will also create a portfolio of work demonstrating their recording knowledge.

3 Units

36 Lecture hours

54 Lab hours

MUST 145

Live Sound Reinforcement I

Prerequisite: MUST 101

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who seeks an overview of live concert sound reinforcement. Topics include basic sound system theory and its application. It also covers individual sound system component operation, including microphones, mixers, effects, power amplifiers, and speaker systems. This course offers opportunities for hands-on experiences in troubleshooting, sound checking, and mixing sound for live performance applications.

3 Units

36 Lecture hours

54 Lab hours

MUST 146

Live Sound Reinforcement II

Prerequisite: MUS 145

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who seeks to further their knowledge in live concert sound reinforcement. Topics include professional communication with musi-

cians, intermediate sound system theory and its application. It also covers individual sound system component operation, including microphones, mixers, effects, power amplifiers, and speaker systems. This course offers opportunities for hands-on experiences in troubleshooting, sound checking, and mixing sound for live performance applications.

3 Units
36 Lecture hours
54 Lab hours

MUST 151 **History of Electronic Music**

Advisory: READ 043 or appropriate assessment; ENGL 030 or ENLA 034 or appropriate assessment

Transfers to: CSU

This course is a survey course designed for the student who seeks an introduction to Electronic Music. Beginning with the European and American avant-garde, this course will trace the roots and routes of electronic music through Jamaican Dub, Chicago House, Detroit Techno, Bronx Hip-hop, and UK Rave to name a few. Analysis of musical style and the relationship to particular technologies will accompany our examination of various genres in their social and cultural contexts.

3 Units
54 Lecture hours

NUTRITION SCIENCE

Division of Health Science & Nursing

NUTR 110

Introduction to Nutrition Science

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed to provide students with basic knowledge of scientific concepts related to the function of nutrients in basic life processes and current health issues with emphasis on individual needs, dietary guidelines, macronutrients, micronutrients, digestion, absorption, metabolism, health, and disease prevention through a balanced diet. This course is appropriate for nutrition majors and health science majors, including nursing.

3 Units
54 Lecture hours

NUTR 120

Principles of Foods with Lab

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students

majoring in nutrition to learn the application of food science principles with emphasis on ingredient function and interaction, food preparation, food preparation techniques, sensory evaluation standards, food safety and sanitation, and nutrient composition of food.

3 Units
45 Lecture hours
27 Lab hours

OPERATING ENGINEERS

Division of Career & Technical Education

OENG 001

Introduction to Apprenticeship

Prerequisite: Registration as a State Indentured Apprentice

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: making yourself valuable, safety, first aid, the cost of accidents, industry terminology, setting up a string line, standard industry hand signals, labor unions and learning to operate heavy equipment.

2 Units
36 Lecture hours
36 Lab hours

OENG 002

Grade Checking

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: safety consciousness, layout and staking methods for subdivisions, streets, buildings, underground structure excavation, right angle triangles, and curve radii.

2 Units
36 Lecture hours
36 Lab hours

OENG 003

Equipment Operator

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Appren-

tices employed full-time in the operating engineer field. Topics covered include: preventive maintenance of heavy equipment, operation of heavy equipment and political science.

2 Units
36 Lecture hours
36 Lab hours

OENG 004

Plan Reading

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: reading and interpreting grading plans for highways, streets and subdivisions.

2 Units
36 Lecture hours
36 Lab hours

OENG 005

Skills Specialization

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: the labor movement in the United States, relationship of politics to construction work, preventive maintenance, and the operation of heavy equipment.

2 Units
36 Lecture hours
36 Lab hours

OENG 012

Welding

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program
Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: the safe use oxyacetylene cutting equipment, the technique of brazing, and electric arc welding.

2 Units
36 Lecture hours
36 Lab hours

OENG 013

Introduction to Hydraulics

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: the principles of hydraulics, how a hydraulic system works and the practical uses of hydraulics.

2 Units

36 Lecture hours

36 Lab hours

OENG 014

Advanced Hydraulics/Pneumatics

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: diagnosis, service and repair of hydraulic valves, motors, pumps and cylinders; diagnosis and repair of variable speed hydraulic drives; service and maintenance of pneumatic systems used on heavy equipment and heavy trucks.

2 Units

36 Lecture hours

36 Lab hours

OENG 015

Engines - Gasoline and Diesel

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: internal combustion engine theory and servicing the fuel, lubricating, and governing systems of gasoline and diesel engines.

2 Units

36 Lecture hours

36 Lab hours

OENG 016

Component Disassembly and Assembly

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics include: clutches, mechanical transmissions, differentials, final drives, crawler tractor undercarriage, and crawler tractor track assemblies.

2 Units

36 Lecture hours

36 Lab hours

OENG 021

Grades and Plans

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This course is designed to develop the ability to read grade plans, establish lines and elevations from previously established control points defined in the grade plans and learn how to check grade plans.

2 Units

36 Lecture hours

36 Lab hours

OENG 022

Structural Masonry Inspection

Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, industry terminology, masonry inspection testing, blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

4 Units

54 Lecture hours

54 Lab hours

OENG 023

Reinforced Concrete Inspection

Prerequisite: Must be an Indentured Apprentice in the Operating Engineers State Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who

are interested in the field of Operating Engineers Inspectors. Topics include industry safety, applications of reinforced concrete structure, sample testing, industry terminology, reinforced concrete inspection testing, blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

4 Units

54 Lecture hours

54 Lab hours

OENG 024

Structural Steel/Welding Inspection

Prerequisite: Must be an Indentured Apprentice for the State of California in the Operating Engineers Training Trust Apprenticeship Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, industry terminology, structural steel/welding inspection testing, analytical blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

4 Units

54 Lecture hours

54 Lab hours

OENG 025

Prestressed Concrete Inspector

Prerequisite: Indentured Apprentice for the State of California in the Operating Engineers Training Program

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include safety, industry terminology, prestressed concrete inspection, blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

4 Units

54 Lecture hours

54 Lab hours

OENG 026

Soils Testing and Inspection

Prerequisite: Must be an Indentured Apprentice in the Operating Engineers Training Trust Apprenticeship Program in the classification of Special Inspection

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or

MATH 020C or appropriate assessment
This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, industry terminology, inspection testing procedures, blueprint reading, field interpretation, and successful completion of a certification class sponsored by the American Concrete Institute and Nuclear Safety Course.

4 Units
54 Lecture hours
54 Lab hours

OENG 290
Work Experience in Operating Engineers Union Apprenticeship

Prerequisite: State Indentured Operating Engineers Union Apprenticeship Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course provides students the opportunity to work in the Operating Engineers apprenticeship program for the purpose of developing specific skills to meet the goals and objectives of the Operating Engineers Joint Apprenticeship Council (J.A.C.). Students complete work experience hours at approved training sites. Students may take up to 16 units total across all Work Experience course offerings. Only one Work Experience course may be taken per semester.

1 to 4 Units
3 Lecture hours
75 to 225 Other

ORTHOPEDIC TECHNOLOGY

Division of Health Science & Nursing

ORTH 040
Introduction to Orthopedic Technology

Prerequisite: BIOL 125; ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
This course will provide students with an introduction to the roles, professional responsibilities, code of ethics, and employment qualifications of an Orthopedic Technician. Instruction will also include the review of the musculoskeletal system as it relates to the field of orthopedic technology emphasizing locomotor, neuromuscular and peripheral vascular structures.

4 Units
72 Lecture hours

ORTH 050
Orthopedic Technician Health Assessment

Prerequisite: ORTH 040
This course will provide the student with entry-level abilities to function as an Orthopedic Technician. Students will receive instruction in the physical examination of the extremities, spine and pelvis. Instruction will include joint range of motion, specific muscle group testing and measuring the locomotor system.

3 Units
45 Lecture hours
27 Lab hours

ORTH 060
Orthopedic Technician Modalities

Prerequisite: ORTH 050
This course will provide the student with entry-level abilities to function as an Orthopedic Technician in the private practice, hospital and managed care facilities. Students will receive instruction in back office skills focusing on casting, splinting, application of soft goods, wound care management, client communication and surgical assisting in major and minor orthopedic procedures. The student will learn operating room etiquette, gowning, gloving, sterile back table set up for categories 1, 2 and 3 orthopedic procedures. Instruction will include seminars, demonstrations and physical examinations, hands on casting and splinting applications, surgical gowning and gloving and assisting in major orthopedic procedures.

4 Units
36 Lecture hours
108 Lab hours

ORTH 070
Orthopedic Technician Practicum

Prerequisite: ORTH 060
This course will provide the student with entry-level abilities to function as an Orthopedic Technician. Students will participate in clinical and hospital rotations consisting of instruction in back office skills to include casting, splinting, application of soft goods, wound care management, client communication, sterile technique, operating room etiquette, gowning, gloving, and sterile back table set-up for category 3 major procedures.

4 Units
18 Lecture hours
162 Lab hours

PHILOSOPHY

Division of Behavioral & Social Sciences

PHIL 101 (C-ID PHIL 100)
Introduction to Philosophy

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces philosophical ideas and methods concerning knowledge, reality and values. Expected topics will include the sources and limits of knowledge, and the nature of reality. Other topics that may be examined from a philosophical perspective include the nature of the self, truth, ethics, religion, science, language, beauty and art, political theory, or mind. This course is appropriate for anyone seeking a broader program of philosophical study, or to fulfill general Humanities or Philosophy major requirements.

3 Units
54 Lecture hours

PHIL 101H (C-ID PHIL 100)
Introduction to Philosophy Honors

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course introduces philosophical ideas and methods concerning knowledge, reality and values. Expected topics will include the sources and limits of knowledge, and the nature of reality. Other topics that may be examined from a philosophical perspective include the nature of the self, truth, ethics, religion, science, language, beauty and art, political theory, or mind. This course is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

PHIL 110
Critical Thinking

Prerequisite: ENGL 101 or appropriate assessment

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to the methods and techniques of informal reasoning. Topics include schematizing and articulating arguments, causal arguments, analogical arguments, testimony arguments, informal fallacies, and others. Emphasis on the application of critical thinking for effective writing will be reflected in the frequency, scope, and nature of course writing assignments, which will be evaluated with regard to both

content and form. Students should expect to write approximately 8000 words in various writing assignments. This course is appropriate for students seeking to improve their writing and reasoning skills.

3 Units
54 Lecture hours

PHIL 110H

Critical Thinking Honors

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is an introduction to the methods and techniques of informal reasoning. Topics include schematizing and articulating arguments, causal arguments, analogical arguments, testimony arguments, informal fallacies, and others. Emphasis on the application of critical thinking for effective writing will be reflected in the frequency, scope, and nature of course writing assignments, which will be evaluated with regard to both content and form. Students should expect to write approximately 8000 words in various writing assignments. This course is appropriate for students seeking to improve their writing and reasoning skills. This course is intended for those who meet Honors Program Requirements.

3 Units
54 Lecture hours

PHIL 112 (C-ID PHIL 110)

Introduction to Logic

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

Transfers to: UC, CSU

This course introduces the formal methods and principles of deductive logic. Topics include translation between natural and formal language, syllogistic logic, and propositional logic. This course is especially recommended for students of mathematics, business, computer science, science, engineering, law, and humanities.

3 Units
54 Lecture hours

PHIL 112H

Introduction to Logic Honors

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment
Transfers to: UC, CSU

This course introduces the formal methods and principles of deductive logic. Topics include translation between natural and formal language, syllogistic logic, and propositional logic. This course is especially recommended for students of

mathematics, business, computer science, science, engineering, law, and humanities. This course is intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

PHIL 115 (C-ID PHIL 210)

Symbolic Logic

Advisory: READ 043 or appropriate assessment; PHIL 101 or PHIL 101H; PHIL 112

Transfers to: UC, CSU

This course is intended for students interested in symbolic methods of deductive reasoning including philosophy and mathematics majors. Students taking this course will develop an understanding of both sentential logic and predicate logic. Students will also learn to translate ordinary language sentences and arguments into symbolic form and evaluate symbolized arguments for validity using truth-tables and natural deduction techniques.

3 Units
54 Lecture hours

PHIL 120 (C-ID PHIL 120)

Introduction to Ethics

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory level course is for students interested in the humanities, law, medicine, politics, social science and related fields, and will expose them to some of the most profound moral and ethical questions in the Western philosophical tradition. We will examine the concept of morality and values, representative ethical theories, and may include their applications to moral problems.

3 Units
54 Lecture hours

PHIL 124 (C-ID PHIL 130)

History of Philosophy: Ancient

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory level course is for those interested specifically in the earliest stages of Ancient Western philosophy. We address the development of Greek philosophy from the Pre-Socratics through Aristotle. We may also include Hellenistic, Roman, medieval or non-western thinkers. Beyond a study of the figures and key ideas, we will discuss the early view of philosophy as a "way of life," and consider how these movements were intended to transform the lives of those who followed them.

3 Units
54 Lecture hours

PHIL 126 (C-ID PHIL 140)

History of Philosophy: Modern

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory level course is intended for all students interested in the Modern period of Western Philosophy (16th through 18th Century). We emphasize broad epistemological and metaphysical developments through close analysis of primary texts. Philosophers to be studied will include Descartes and other Rationalists, Hume and other Empiricists, and Kant.

3 Units
54 Lecture hours

PHIL 128 (same as POLS 128)

(C-ID POLS 120)

Introduction to Political Philosophy

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for students interested in the relationship between political systems and philosophy. It is especially relevant for students interested in political science, philosophy and law. This course introduces the history and development of political thought, and will consider the justification of the State, Libertarianism, Socialism, Communism, as well as conceptions of rights and distributions of goods.

3 Units
54 Lecture hours

PHIL 128H (same as POLS 128H)

(C-ID POLS 120)

Introduction to Political Philosophy Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for students interested in the relationship between political systems and philosophy. It is especially relevant for students interested in political science, philosophy and law. This course introduces the history and development of political thought, and will consider the justification of the State, Libertarianism, Socialism, Communism, as well as conceptions of rights and distributions of goods. This course is designed for students who meet Honor's Program requirements.

3 Units
54 Lecture hours

PHIL 135

Philosophy and Contemporary Issues

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory course explores the philosophical aspects of a variety of issues of contemporary interest. This course is intended for all students interested in applying methods of philosophy to contemporary topics which may include, but are not limited to: war/terrorism, sex work, cloning, euthanasia, suicide, philosophical issues pertaining to race or gender, genetic engineering, illicit drug use, business ethics, or artificial intelligence.

3 Units

54 Lecture hours

PHIL 140

Philosophy of Religion

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory level course is intended for all students seeking a thoughtful exploration of religious issues in a non-sectarian context, or as part of a broader program of philosophical study. We will address Western religion from a philosophical perspective, including arguments for and against the existence of God, and an investigation into the status of religious beliefs. Additional topics may include a consideration of the evolution-creationism debate, and a discussion of religious pluralism.

3 Units

54 Lecture hours

PHIL 299

Directed Study: Philosophy

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student

progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

PHIL 325

Applied and Professional Ethics

Prerequisite: ENGL 201 or ENGL 201H, and PHIL 101 or PHIL 101H or PHIL 120

This upper division General Education course is designed for students pursuing a Bachelor of Science degree in Automotive Technology but it is also open to all students who have successfully completed the prerequisites. This course is intended for students who seek a greater understanding of the relationship between ethics and human living. This course will expose them to the moral and ethical views in the Western philosophical tradition. Students will then apply these views to various contemporary issues. Expected topics include: business ethics, euthanasia, terrorism, public policy, the death penalty, and issues in science and technology.

3 Units

54 Lecture hours

PHOTOGRAPHY

Division of Arts & Cultural Programs

PHTO 185

Introduction to Digital Photography

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an introduction to digital photography as a creative art, emphasizing photography as a means of communication and personal expression. An examination of the theory of aesthetics, cultural significance, historical progression, elements of composition, visual literacy, and technical elements of photography will be conducted. Students will be introduced to DSLR camera operation and digital imaging techniques. Students are required to supply their own digital camera. Critical evaluation of student work is also a component of this course. This class is suitable for photography majors and non-majors alike.

3 Units

36 Lecture hours

72 Lab hours

PHTO 190

Beginning Photography

Advisory: READ 043 or appropriate assessment; ART 120

Transfers to: UC, CSU

This course is designed for students who wish to study the basic technical and conceptual approaches to contemporary photography. Traditional black and white photography techniques are explored, with special emphasis on the basic use of the 35 mm camera and enlarger as well as the processing of black and white film and printing paper. Students are required to provide their own 35 mm camera with manual controls.

3 Units

36 Lecture hours

72 Lab hours

PHTO 191

Intermediate Photography

Prerequisite: PHTO 190

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students who have successfully completed beginning photography and wish to study more advanced technical and conceptual approaches to contemporary black and white photography in a, 35mm film based, wet lab environment. Techniques such as the use of studio lighting, light meters, toners, hand coloring, and solarization are explored, with special emphasis given to understanding the conceptual framework for the production and analysis of both personal and commercial photographic imagery. Students are required to provide their own 35mm camera with manual controls.

3 Units

36 Lecture hours

72 Lab hours

PHTO 290

Medium and Large Format Photography

Prerequisite: PHTO 190

Advisory: READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students who have successfully completed beginning photography and wish to study more advanced technical and conceptual approaches to contemporary black and white photography using medium and large format films and cameras in a traditional wet lab environment. Special emphasis is given to the understanding and analysis of photographic imagery.

2 Units

18 Lecture hours

54 Lab hours

PHTO 292**Digital Photography**

Prerequisite: PHTO 185 or PHTO 190

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students who have successfully completed PHTO 190 and have a working knowledge of basic camera controls and photographic composition. It will cover use of digital cameras, image editing and manipulation, digital printing, and the expression of ideas through digital photographs. Students are required to supply their own digital camera.

3 Units

36 Lecture hours

72 Lab hours

PHTO 299**Directed Study: Photography**

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

PHYSICS**Division of Mathematics,
Sciences, and Engineering****PHY 120****Physics for Everyday Use**

Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive no credit for PHY 120 if taken after PHY 150 or PHY 211)

This course investigates the basic characteristics of matter and the interactions that govern its behavior and emphasizes how remarkable everyday phenomena are. Examples from popular culture (movies, TV, and sports) are emphasized. Topics include how to describe an object's motion, how to explain changes in an object's motion, the roles of work and energy, and other topics. The course is oriented to the non-science major, stresses conceptual understanding, and is intended to present students with an opportunity to see how our world works.

4 Units

54 Lecture hours

54 Lab hours

PHY 150 (C-ID PHYS 100S, PHYS 105)**General Physics - I**

Prerequisite: MATH 175 or appropriate assessment

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the first of a two-semester sequence and is designed for students transferring to a four-year institution and planning careers in health professional fields such as medicine, dentistry, veterinary science, pharmacy, and optometry as well as those students in engineering technology and architecture. Students majoring in the biological sciences should consult a counselor as to whether this course satisfies the general preparation requirements for the major at the university. Topics include kinematics, dynamics, energy, work, momentum, conservation principles, rotational motion, simple harmonic motion, fluids, and thermodynamics.

4 Units

54 Lecture hours

54 Lab hours

PHY 160 (C-ID PHYS 100S, PHYS 110)**General Physics - II**

Prerequisite: PHY 150

Transfers to: UC, CSU (Students will receive credit for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the second of a two-semester sequence and is designed for students transferring to a four-year institution with majors in health professional fields such as medicine, dentistry, veterinary science, pharmacy, and optometry as well as those students in engineering technology and architecture. Students majoring in the biological sciences should consult a counselor as to whether this course satisfies the general preparation requirements for the major at the university. Topics include electricity and magnetism, oscillations, waves, optics, and modern physics.

4 Units

54 Lecture hours

54 Lab hours

PHY 211 (C-ID PHYS 200S, PHYS 205)
Physics for Scientists and Engineers - I

Prerequisite: MATH 190 or MATH 190H

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the first of a three-semester sequence and is designed for students transferring to a four-year institution with majors in the sciences and engineering. Topics covered are kinematics, dynamics, energy, work, momentum, and conservation principles.

4 Units

54 Lecture hours

54 Lab hours

PHY 212 (C-ID PHYS 200S, PHYS 215)
Physics for Scientists and Engineers - II

Prerequisite: PHY 211 and MATH 191

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for one physics series: PHY 150 and 160 or PHY 211, PHY 212, and PHY 213)

This course is the second of a three-semester sequence and is designed for students transferring to a four-year institution with majors in the sciences and engineering. Topics covered include quantum physics, physical optics, and thermodynamics.

4 Units

54 Lecture hours

54 Lab hours

PHY 213 (C-ID PHYS 200S, PHYS 210)
Physics for Scientists and Engineers - III

Prerequisite: PHY 211 and MATH 191
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 250
Transfers to: UC, CSU (Students will receive credit for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the third of a three-semester sequence and is designed for students transferring to a four-year institution with majors in the sciences and engineering. Topics covered are electric fields, electric potential, current, circuits, magnetic fields, Gauss' law, Ampere's law, Maxwell's equations, induction, and electromagnetic waves.

4 Units
54 Lecture hours
54 Lab hours

PHY 220
Unmanned Rocket Science

Prerequisite: CIT 125 or CIT 135
Corequisite/Prerequisite: PHY 213
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course introduces students to the creation and implementation of payloads and unmanned flight vehicles. The payloads and unmanned vehicles such as rockets, balloons and unmanned aerial vehicles (drones) collect inflight atmospheric data that are later analyzed and presented.

3 Units
36 Lecture hours
54 Lab hours

PHY 299
Directed Study in Physics

Advisory: PHY 150 or 160 or 211 or 212 or 213
Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Physics beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units
54 to 162 Lab hours

POLICE ACADEMY

Division of Public Safety

PAC 040
Basic Police Recruit Class

Prerequisite: Medical clearance, California Department of Justice clearance for firearms training, passing scores on POST written and physical tests (agency sponsored cadets are exempt)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 4348L
This is a fundamental course which covers criminal law, evidence, procedure and investigation, firearms, first aid, defense tactics, use of chemical agents and other related police subjects. This course meets the educational requirement for basic certification by the Commission on Peace Officer Standards and Training (POST).

24 Units
772 Lecture hours
163 Lab hours

PAC 042
Police Supervision

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040 or PAC 075B, 075C, 075D

This course is designed to explain and apply the elements of supervision oriented to law enforcement personnel. Methods of effective leadership, motivation, communication and techniques of training are presented. This course is certified by the Commission on Peace Officer Standards and Training (POST).

4.5 Units
81 Lecture hours

PAC 043
Advanced Officers Course

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; PAC 040 or PAC 075B, 075C, 075D

This course is designed for upgrading currently employed law enforcement personnel. The curriculum follows that recommended by the Commission of Peace Officer Standards and Training. The course is designed to keep peace officers informed of new laws, recent court decisions, current enforcement procedures, new concepts in law enforcement, technology, community relations and other refresher training as may be necessary.

0.07 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 071
Public Safety Dispatcher Basic Course

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040

This course meets the POST (California Commission on Peace Officer Standards Training) requirements for the position of public safety dispatcher. The content of this course is a combination of the following topics: Professional Orientation, Criminal Justice System, Law, Communication Technology, Telephone Procedures, Radio Procedures, Missing Persons, Domestic Violence, Referral Services, Cultural Diversity, Sexual Harassment, Hate Crimes, Gang Awareness, Stress Management, Critical Incidents, Telecommunications and Practical Application Activities.

6 Units
102 Lecture hours
18 Lab hours

PAC 075B
Basic Course-Module III (Ext)

Prerequisite: Medical clearance, California Department of Justice clearance for firearms training, passing scores on POST written and physical tests (agency sponsored cadets are exempt).

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for those interested in becoming a Level III Reserve officer. This course covers criminal law, evidence, investigations, firearms, arrest and control, vehicle operations, report writing, first aid/CPR, cultural diversity, and other related police topics. It is the level of training which satisfies the legal requirements for a Level III Reserve officer.

6 Units
72 Lecture hours
112 Lab hours

PAC 075C
Basic Course - Module II (Ext)

Prerequisite: Successful completion of PAC 075B or POST Module III, current (within last 3 years) in PC 832 Arrest and Firearms training requirements, passage of the POST-constructed Comprehensive Module III End-of-Course Proficiency Test within the preceding 12 months, medical clearance, Department of Justice clearance for firearms training
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for those interested in becoming a Level II Reserve officer. This course covers criminal law, evidence, investigations, firearms, arrest and control, community relations, report writing,

cultural diversity, and other related police topics. It is training which satisfies the legal requirements for a Level II Reserve officer.

8 Units
90 Lecture hours
162 Lab hours

PAC 075D
Basic Police Recruit Class -
Level I Module

Prerequisite: Successful completion of PAC 075B and PAC 075C or POST Modules III and II, current (within last 3 years) in PC 832 Arrest and Firearms training requirements, passage of the POST-constructed Comprehensive Module II End-of-Course Proficiency Test within the preceding 12 months, medical clearance, Department of Justice clearance for firearms training
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for those interested in becoming a Level I Reserve officer or a regular peace officer. This course covers criminal law, evidence, investigations, firearms, arrest and control, emergency vehicle operation, and other related police topics. It is the final level of training which constitutes satisfaction of the Regular Basic Course training requirement and the legal requirements for a Level I Reserve officer.

8 Units
162 Lecture hours
232 Lab hours

PAC 078
Requalification - Basic Course

Prerequisite: Successful completion of a California POST Basic Police Academy; a California Department of Justice clearance for firearms training
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed for individuals who have completed a basic police recruit academy, but have not been active in the law enforcement field for at least three years. It provides a review of the skills and knowledge needed to return to active law enforcement duty. The topics covered include human relations, legal changes and a review of current legal issues, conducting a preliminary investigation, field tactics, the use of force and weaponry, and racial profiling.

5.5 Units
96 Lecture hours
40 Lab hours

PAC 083
Pre-Academy Physical Fitness

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

This course is designed to help prospective police cadets improve their physical performance and keep informed of physical fitness techniques prior to entering the Rio Hondo Police Academy. The curriculum is geared toward and followed by the California Commission on Peace Officer Standards and Training.

0.296 to 1.48 Units
8 to 40 Lecture hours
8 to 40 Lab hours

PAC 43019
Vehicle Operations

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed to keep peace officers informed of new vehicle operations procedures affected by Federal and State changes and recent requirements which effect current law enforcement procedures. Vehicle Operations for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 43032
Physical Fitness

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed to keep peace officers informed of physical fitness techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. Physical Fitness for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 43035
Firearms

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed to keep peace officers informed of new Firearms Techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. Firearms for Officer Development present new concepts in law enforcement procedures. The curriculum follows that recommended as

refresher training by California Commission on Peace Officer Standards and Training.

0.1 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 43049
First Aid/CPR

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed to keep peace officers informed of new first aid and CPR techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. First Aid/CPR for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 4314
Field Training Officer Course

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed to teach a Police Officer how to train new recruits. This course includes training principles, civil liability, ethics and integrity, performance goals, principles of instruction, and role model.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 4339
Tactics for Field Officers

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed for field officers to combat complacency or apathy that may have intruded into their behavior. It will reinforce their mental attitude, physical awareness and training that is needed in handling the situational complexities that officers are continually confronted with in the field. It is also designed to stimulate or renew their commitment to good personal practices encouraging safety and the professional delivery of service to the public.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 4342
Weapons, Semi-Automatic Handguns

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040
This course is designed for personnel who are concerned with semiautomatic pistols as a police service side

arm. Overall course will encompass Colt .45 semiautomatic, Smith and Wesson models 39 and 59, Browning Hi-Power 9 millimeters, plus other uniform and off-duty semiautomatic pistols.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 4351

Industrial Security Powers to Arrest and Baton Training

This course is designed for students who are involved in private security. The contents presented will give an overview of the role of security guards, First Aid basics, Powers to Arrest and P.O.S.T. Certified Baton Training.

0.148 to 0.741 Units
8 to 40 Lecture hours

PAC 4352

Industrial Security Baton Powers to Arrest, Firearms

This course is designed for students who are involved in private security. The contents presented will qualify students for certification with the Department of Consumer Affairs in the areas of Powers to Arrest, Firearms, and Baton.

0.167 to 0.75 Units
8 to 40 Lecture hours

PAC 4353

Industrial Security; Baton, Powers to Arrest, Chemical Agents

This course is designed for students who are involved in private security. The contents presented will qualify students for certification with the Department of Consumer Affairs in the areas of Powers to Arrest, Chemical Agents and Baton.

0.148 to 0.741 Units
8 to 40 Lecture hours

PAC 4376

PC 832 Arrest

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 040

This course is designed to provide the student, employed or seeking employment in public agencies, with the skills and information necessary to satisfy the state requirements for the PC 832 Arrest course which covers the California justice system, professional behavior, law, evidence and discretionary decision making. This course can be taken alone or in combination with PAC 4377, PC 832 Firearms and/or PAC 4378, PC 832 Communications and Arrest Methods to satisfy varying agency requirements.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 4377

PC 832 Firearms

Prerequisite: PAC 4376; Pursuant to Section 13511.5 of the California Penal Code, each student who is not sponsored by a local or other law enforcement agency, must submit written certification from the California Department of Justice certifying no criminal history background which would disqualify the student pursuant to Section 12021.1 P.C. Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to provide the student employed or seeking employment in public agencies with the skills and information necessary to satisfy state requirements for the PC 832 Firearms course which covers firearms safety, care, cleaning, shooting and qualification. This course can be taken alone or in combination with PAC 4376, PC 832 Arrest and/or PAC 4378, PC 832 Communications/Arrest to satisfy varying agency requirements.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 4378

PC 832 Communications and Arrest Methods

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; PAC 4376
This course is designed to provide the student employed or seeking employment in public agencies and currently have a working knowledge of the law enforcement functions with the skills and information necessary to satisfy state requirements for the PC 832 Communications and Arrest Techniques course which covers community relations, communications, report writing, arrest control and personal searches. This course can be taken alone or in combination with PAC 4376, PC 832 Arrest and/or PAC 4377, PC 832 Firearms to satisfy varying agency requirements. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

0.074 to 1.48 Units
2 to 40 Lecture hours
2 to 40 Lab hours

POLITICAL SCIENCE

Division of Behavioral & Social Sciences

POLS 110 (C-ID POLS 110)

Government of the United States

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: POLS 110 or POLS 110H)

This course surveys and analyzes the origins, principles, institutions, policies, and politics of U.S. National and California State Governments, including their constitutions. Emphasis is placed on the rights and responsibilities of citizens, and an understanding of the political processes and issues involved in the workings of government. This course fulfills the American Institutions requirement for the Associate Degree. It also is suitable for students wishing to expand their knowledge of local, state and national governments.

3 Units
54 Lecture hours

POLS 110H (C-ID POLS 110)

Government of the United States

Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: POLS 110 or POLS 110H)

This course surveys and analyzes the origins, principles, institutions, policies, and politics of U.S. National and California State Governments, including their constitutions. Emphasis is placed on the rights and responsibilities of citizens, and an understanding of the political processes and issues involved in the workings of government. This course fulfills the American Institutions requirement for the Associate Degree. It also is suitable for students wishing to expand their knowledge of local, state and national governments. This course is intended for students eligible for the Honors Program.

3 Units
54 Lecture hours

POLS 120

California State and Local Governments

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course stresses the study of California state and local government (counties, cities, and special districts) and California party politics, including the study of the California constitution, intergovernmental relations, regional governments, and urban politics and problems. This course is designed to make available to students the concepts, information, and skills which will enable them to better understand the political and governmental systems in which Californians function.

3 Units
54 Lecture hours

POLS 125**Law and Democracy**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides an examination and analysis of practical law as it affects people in daily life as citizens in a democracy. It assists in the development of skills to successfully navigate legal systems and in understanding democratic political values. Emphasis is placed on constitutional rights and civil liberties, police encounters and criminal law, local government and advocacy, small claims and traffic courts, landlord/tenant relations, family law, consumer rights, contracts, employment and immigration. Further emphasis is placed on application, critical thinking and problem solving in common legal situations. This course is designed for any student wishing to learn more about the law and its interaction with democratic government and those students wishing to attend law school. It is also a requirement for any student seeking to complete the Community College Pathway to Law School Initiative.

3 Units

54 Lecture hours

POLS 128 (C-ID POLS 120)**(same as PHIL 128)****Introduction to Political Philosophy**

Advisory: ENGL 101 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for students interested in the relationship between political systems and philosophy. It is especially relevant for students interested in political science, philosophy and law. This course introduces the history and development of political thought, and will consider the justification of the State, Libertarianism, Socialism, Communism, as well as conceptions of rights and distributions of goods.

3 Units

54 Lecture hours

POLS 128H (C-ID POLS 120)**(same as PHIL 128H)****Introduction to Political Philosophy Honors**

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for students interested in the relationship between political systems and philosophy. It is especially relevant for students interested in political science, philosophy and law. This course introduces the history and development of political thought, and will consider the

justification of the State, Libertarianism, Socialism, Communism, as well as conceptions of rights and distributions of goods. This course is designed for students who meet Honor's Program requirements.

3 Units

54 Lecture hours

POLS 130 (C-ID POLS 130)**Comparative Government**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course examines the political systems of selected industrial democracies, dictatorships, and governments of the developing world. Emphasis is placed on the institutional development and political processes and cultures within these countries. This course features an examination of current political problems and a comparison of such differing ideologies as Marxism, democracy, theocracy, and totalitarianism. This course is intended for the student interested in the study of foreign governments and for those who wish to major in political science.

3 Units

54 Lecture hours

POLS 135 (same as ECON 135)**International Political Economy**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This is an introductory course designed for students interested in economics and political science, as well as anyone interested in the global interconnectedness of the world economy. The course focuses on the relations between the political and economic systems within the global economy. The course covers the impact of political decisions on world economies and international organizations. Further emphasis is placed on a comparison-contrast of various national economies. Geographic areas of concern include Africa, Europe, the Pacific Rim, the Middle East, Latin America, Russia, China, and the United States. The course is cross-listed as Economics 135 and Political Science 135. Credit is given in either area, not both.

3 Units

54 Lecture hours

POLS 140 (C-ID POLS 140)**International Relations**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course examines the structure and operation of the international system. Emphasis is placed on the

nature and sources of conflict and cooperation, issues of war and peace among states in the international system, and international economic development. The impact of nation-states, international organizations, and non-governmental actors are all examined. This course is suitable for students who wish to expand their knowledge of international politics and for those who wish to major in political science or international relations.

3 Units

54 Lecture hours

POLS 150**Chicano Politics (Same as CHST 150)**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course examines U.S. history and political issues relevant to the Chicano/Latino community, provides an overview of Chicano/Latino demographics in the U.S. examines Chicano/Latino political activism and the rise of Chicano/Latino political leadership. Students interested in this course may include individuals with familial or personal connections to the Chicano (Mexican-American) community and/or those intending to work in environments with high concentrations of this population.

3 Units

54 Lecture hours

POLS 299**Directed Study: Political Science**

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student

progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units
54 to 162 Lab hours

PSYCHOLOGY

Division of Behavioral & Social Sciences

PSY 101 (C-ID PSY 110)

Introductory Psychology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: PSY 101 or PSY 101H)

This course is designed as a general introduction to psychology for psychology majors, those with an interest in psychology, or anyone with a desire to further their understanding of human behavior. It provides an overview of the field of psychology, introducing students to the research methods used to advance the science of psychology and the various areas that comprise this diverse discipline. Research and theories are presented, discussed, and evaluated. Topics covered include biological psychology, sensation and perception, lifespan development, learning, memory, motivation and emotion, cognition, personality, psychopathology and social psychology.

3 Units
54 Lecture hours

PSY 101H (C-ID PSY 110)

Introductory Psychology Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: PSY 101 or PSY 101H)

This course is designed as a general introduction to psychology for psychology majors, those with an interest in psychology, or anyone with a desire to further their understanding of human behavior. It provides an overview of the field of psychology, introducing students to the research methods used to advance the science of psychology and the various areas that comprise this diverse discipline. Research and theories are presented, discussed, and evaluated. Topics covered include biological psychology, sensation and perception, lifespan development, learning, memory, motivation and emotion, cognition, personality, psychopathology and social psychology. This course is

intended for those who meet Honors Program requirements.

3 Units
54 Lecture hours

PSY 112 (C-ID PSY 180)

Lifespan Development

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: PSY 112 or CD 106)

This course provides an overview of human psychological development across the lifespan. The physical, cognitive, social, and emotional changes that occur from the prenatal period through old age are addressed. In addition, current research findings and their applicability to ongoing developmental problems are explored. This course is appropriate for the student seeking to develop a better understanding of the development gains and losses that occur throughout our lives.

3 Units
54 Lecture hours

PSY 114 (C-ID PSY 120)

Introduction to Abnormal Psychology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides an introduction to the study of abnormal behavior for psychology majors, those with an interest in abnormal psychology, or anyone with a desire to further their understanding of abnormality. The classification, assessment and treatment of psychological disorders will be explored. Students will not only develop an understanding of the etiology and diagnosis of such disorders, as based upon DSM-IV-TR criteria, but develop an appreciation of the cultural, historical and theoretical influences that affect the definitions and treatment of abnormal behavior.

3 Units
54 Lecture hours

PSY 121

Drugs, Society, and Behavior

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is for the student who seeks a basic understanding of the effects of drugs of abuse and an in-depth consideration of the societal aspects of psychoactive drugs. It is designed for those students interested in furthering their understanding of psychoactive drugs and those interested in working with populations recovering from or at risk for drug problems. Current and historical uses of and attitudes towards drugs will

be addressed, as well as drug use disorders, drug legislation, and treatment options. Societal and cultural differences will also be noted.

3 Units
54 Lecture hours

PSY 127

Introduction to the Physiological Effects of Drugs of Abuse

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for students interested in furthering their understanding of psychoactive drugs and those interested in working with populations recovering from or at risk for drug problems. It provides an examination of the pharmacological actions of drugs of abuse and how this relates to the physiological, as well as the behavioral, effects of such drugs. The properties of drugs that increase the likelihood of the development of substance use disorders will be emphasized.

3 Units
54 Lecture hours

PSY 170

Introduction to Learning and Memory

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course details the background and research that led to the identification of the different types of learning and memory. Students will explore topics in the field of learning and memory including but not limited to classical conditioning, operant conditioning, instrumental conditioning, short-term and long-term memory, forgetting, and models of learning and memory. This course is beneficial for students that are Psychology majors, students looking to transfer as a Psychology major and students that are interested in learning about the field of learning and memory.

3 Units
54 Lecture hours

PSY 180

Positive Psychology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course focuses on the research, theories, and ideas surrounding, promoting, and maintaining well-being, good health, and happiness. Students will explore topics in the field of positive psychology including but not limited to wellness, optimism, flow, happiness, and positive thinking. This course is beneficial for students that are Psychology majors, students looking to transfer as a Psychology

major and students that are interested in learning about positive psychology.

3 Units

54 Lecture hours

PSY 190 (C-ID MATH 110, SOCI 125)

Statistics for the Behavioral Sciences

Prerequisite: MATH 062, MATH 070 or MATH 070D or MATH 073 or appropriate assessment

Advisory: ENGL 101 and READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides an overview of the types of statistics that are important in the behavioral sciences. The main focus of this course is on hypothesis testing and the statistics that are used to analyze it. Students will learn to present and interpret experimental data from the behavioral sciences. Topics covered include basic probability, measures of central tendency, measures of variance, sampling, and inferential statistics. This course is designed for students majoring in psychology, sociology, political science, and anthropology. NOTE: MATH 062 or MATH 073 can be used to fulfill the prerequisite requirement for this class. Some majors require that students take MATH 073 (not MATH 062) and others do not. Students should see a counselor to determine which pathway will work best for them.

4 Units

72 Lecture hours

PSY 200 (C-ID PSY 200)

Research Methods in Psychology

Prerequisite: PSY 101 or PSY 101H and PSY 190 or MATH 130 or MATH 130H

Advisory: ENGL 101; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course provides an introduction to the philosophy of science and the examination of the hypothetical deductive methods and their relationship to theory. Topics include: the nature of experimental research and design, experimental and non-experimental research-including group and single-subject designs, literature review, research ethics, collection and analysis of data, and writing APA-style reports. Collection, handling, and analysis of original empirical data, during class and outside of class, in both experimental and non-experimental designs, are an integral component of the course. The course is designed for students intending to pursue a degree in psychology.

3 Units

36 Lecture hours

54 Lab hours

PSY 210 (C-ID PSY 150)

Biological Psychology

Prerequisite: PSY 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: PSY 210 or PSY 210H)

This course is designed for the student who has an interest in understanding the biological processes that underlie human behavior. The biological basis of normal and abnormal behavior, including sensory systems, brain and behavior relationships, and underlying neurochemical processes will be addressed. The extent to which biological processes interact with environmental influences to determine behavior will be explored.

3 Units

54 Lecture hours

PSY 210H (C-ID PSY 150)

Biological Psychology Honors

Prerequisite: PSY 101 and ENGL 101

Enrollment is restricted to those who meet Honors Program requirements (minimum GPA of 3.0)

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: PSY 210 or PSY 210H)

This course is designed for the student who has an interest in understanding the biological processes that underlie human behavior. The biological basis of normal and abnormal behavior, including sensory systems, brain and behavior relationships, and underlying neurochemical processes will be addressed. The extent to which biological processes interact with environmental influences to determine behavior will be explored. This course is intended for students eligible for the Honors Program.

3 Units

54 Lecture hours

PSY 299

Directed Study: Psychology

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to

meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

RADIO

Division of Communications & Languages

RDIO 104

Introduction to Broadcasting

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction into the field of broadcasting in a survey form covering the vast areas of broadcasting throughout the world. It is a broad survey of the history, theory, and operation of radio and television broadcasting in the United States, including legal and social aspects, networks, programming, production, sales and advertising, and station personnel. At least one field trip to a radio or television studio will be scheduled each semester.

3 Units

54 Lecture hours

RDIO 136

Radio Production

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is intended as an introduction for students wanting to learn the production and management techniques in radio broadcasting. Students will be shown basic techniques for writing and producing the commercial and public service type announcements. Students will be shown through lecture, demonstration, and taped examples the proper announcing and on-air presentation techniques. Students will make demonstration tapes and air checks of examples of their work for submission to the instructor and the class for evaluation. Selected students will

have an opportunity to air their programs over the campus radio station KRHC.

4 Units

36 Lecture hours

108 Lab hours

RDIO 236

Advanced Radio Production

Prerequisite: RDIO 136

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is intended as an advanced study for students wanting to learn production and management techniques utilized in radio broadcasting. Students will be shown proper announcing and on-air presentation techniques through lecture, demonstration, and taped examples. Students will have an opportunity to air their programs over the campus Internet radio station KRHC.

4 Units

36 Lecture hours

108 Lab hours

RDIO 290

Cooperative Work Experience/Internship for Radio Related Fields

Prerequisite: JOUR 147

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in radio related fields under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in an area of radio related fields and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose intended job is related to the field of radio and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

RDIO 299

Directed Study: Radio

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/

or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor.

Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester.

Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units

54 to 162 Lab hours

READING

Division of Communications & Languages

READ 012

Learning Strategies

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment

This course is designed for students entering college who need to develop their skills as learners. Students will build and acquire study techniques in the areas of note taking, test taking, text reading, memorizing, time planning and communicating. The emphasis of this class will be on learning new techniques and then applying them to classes and work situations. This is a non-degree credit course and is offered on a pass/no pass basis.

1.5 Units

27 Lecture hours

READ 021

Basic Reading

Prerequisite: Appropriate placement through the Rio Hondo Assessment process

Corequisite: READ 021L

This course is designed for students who want to improve their reading skills in order to succeed in other college classes. Students will learn

how to read and understand short works of fiction and nonfiction as well as key vocabulary words associated with college and everyday life through context clues, word parts, and dictionary usage. Students will also learn to recognize transitions, main ideas and supporting details. This is a non-degree applicable course and is offered on a pass/no pass basis. All students are required to concurrently enroll in the Reading Lab, READ 021L.

3 Units

54 Lecture hours

READ 021L

Reading Lab

Prerequisite: Appropriate placement through the Rio Hondo Assessment process

Corequisite: READ 021

This course is a skills class designed to assist students in improving reading comprehension and vocabulary through individually prescribed lab work. Students will complete reading tasks intended to complement the activities of their reading course. All READ 021 students must enroll. This is a non-degree applicable course offered on a pass/no pass basis.

0.5 Units

27 Lab hours

READ 022

Intermediate Reading Skills

Prerequisite: READ 021 and READ 021L or appropriate placement through the Rio Hondo assessment process

Corequisite: READ 022L

This course is designed for students who want to improve their reading skills in order to succeed in other college classes. Students will develop comprehension and vocabulary through the reading of material drawn from popular works, textbooks, magazines, and newspapers. Areas addressed include determining main ideas, recognizing supporting details, identifying author's organization, and making inferences. This is a non-degree credit course and is offered on a pass/no pass basis. All students are required to concurrently enroll in READ 022L.

3 Units

54 Lecture hours

READ 022L

Reading Lab

Prerequisite: READ 021 or appropriate placement through the Rio Hondo assessment process

Corequisite: READ 022

This course is a skills class intended to assist students in improving reading comprehension and vocabulary through individually prescribed lab work. Students will complete reading tasks designed to complement the activities of their reading course. All

READ 022 students must enroll. This is a non-degree applicable course offered on a pass / no pass basis.

0.5 Units
27 Lab hours

READ 043

Reading College Textbooks

Prerequisite: READ 022 or READ 022L or appropriate assessment through the Rio Hondo College assessment process

This is a course designed for students who need to improve their reading competencies in order to succeed in other college classes. Areas of emphasis will include reading strategies essential in such academic areas as social sciences, science, technology, business and humanities. The course also introduces academic vocabulary.

3 Units
54 Lecture hours

READ 101

Critical Reading

Prerequisite: READ 043 or appropriate assessment through the Rio Hondo College assessment process

Advisory: ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: CSU

This course is designed to aid students in acquiring critical reading and thinking skills across the disciplines. Emphasis is placed on the ability to analyze and evaluate material by establishing thesis and support as well as by analyzing elements of argumentation. The course also focuses on vocabulary and the effects of language on the reader.

3 Units
54 Lecture hours

READ 134

Academic Success and Lifelong Learning

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This comprehensive course is designed for students to acquire reading and study strategies for college success and lifelong learning. Outcomes include the knowledge of applicable educational learning theories as well as psychological and physiological tools that promote self-development in learning. Specific topics consist of reading print versus digital texts, critical thinking, lecture and textbook note taking, metacognitive strategies, test preparation, time management, and to aid the student in achieving academic and lifelong goals.

3 Units
54 Lecture hours

REGISTERED DENTAL ASSISTING

Division of Health Sciences & Nursing

RDA 051

Registered Dental Assisting I

Prerequisite: Acceptance into Registered Dental Program

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This is part one of a two-semester Registered Dental Assisting competency based course. This course includes patient care experience in a fully equipped facility. Students who successfully complete the curriculum are qualified to take the California Dental Board examination leading to licensure as a Registered Dental Assistant. At completion of the program, the student will be certified by the state of California to take dental x-rays. Students who are interested in the dental field are encouraged to take this course.

12 Units
151 Lecture hours
200 Lab hours

RDA 052

Registered Dental Assisting II

Prerequisite: Enrollment in the RDA Program and successful completion of RDA 051

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment

This is part two of a two-semester Registered Dental Assisting competency based program. This course includes patient care experiences in a fully equipped facility and a 160 hour preceptor experience. Students who successfully complete the curriculum are qualified to take the California Dental Board examination leading to licensure as a registered Dental Assistant. At the completion of the program, the student will be certified by the state of California to perform coronal polishing and place pit and fissure sealants. Student who are interested in the dental field are encouraged to take this course.

12 Units
100 Lecture hours
356 Lab hours

SOCIOLOGY

Division of Behavioral & Social Sciences

SOC 101 (C-ID SOCI 110)

Introduction to Sociology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SOC 101 or SOC 101H)

This course is designed for those with an interest in Sociology, or anyone with a desire to further their understanding of human group behavior and the organization of society. The student, using several theoretical points of view, will study and analyze: (1) the organization of social life; (2) problems of inequality - of age, sex, race and ethnicity, social class and life style; (3) the basic social institutions: family, education, politics, economics, and religion; and (4) global issues of population, technology, social movements and social change.

3 Units
54 Lecture hours

SOC 101H (C-ID SOCI 110)

Introduction to Sociology Honors

Prerequisite: Enrollment is restricted to those who meet Honors Program requirements (minimum GPA of 3.0) and completion of ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SOC 101 or SOC 101H)

This course is designed for those with an interest in Sociology, or anyone with a desire to further their understanding of human group behavior and the organization of society. The student, using several theoretical points of view, will study and analyze: (1) the organization of social life; (2) problems of inequality - of age, sex, race and ethnicity, social class and life style; (3) the basic social institutions: family, education, politics, economics, and religion; and (4) global issues of population, technology, social movements and social change. This course is intended for students eligible for the Honors Program.

3 Units
54 Lecture hours

SOC 102 (C-ID SOCI 115)

Major Social Problems

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed to provide students with an understanding of the definition, development, reduction and elimination of major social problems in contemporary society. Topics addressed include problems of mental and physical health including addictions, crime and violence, social inequality, terrorism and war, as well as technology and the environment. Various social theories and relevant empirical research are critically examined throughout the course.

3 Units

54 Lecture hours

SOC 105

Introduction to Human Sexuality

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students interested in the social scientific study of human sexuality. The course provides students with knowledge about the processes and variation in sexual functions, reproduction, intimate relationships, sexual and gender role development and sexual activities. Numerous factors involved in human sexuality are explored, emphasizing sexuality as a form of human interaction. The social, cultural, and historical contexts of human sexuality will be critically analyzed.

3 Units

54 Lecture hours

SOC 110

Human Sexuality from a Cross-Cultural Perspective (Same as ANTH 110)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students with an interest in human sexuality from a cross-cultural perspective. Sexual anatomy, development, response, and behavior will be examined, along with historical and cultural patterns. Students will learn about the development and expression of gender and orientation from both Western and non-Western perspectives, with an emphasis on the influence of culture on individuals.

3 Units

54 Lecture hours

SOC 114 (C-ID SOCI 130)

Marriage, Family and Intimate Relationships

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student interested in examining, from a sociological perspective, issues such as marriage, family, and emerging alternative life styles which con-

stitute the reality of life today. The course explores love, sexuality, mate selection, and engagement preceding traditional marriage and family patterns, extra-marital and non-marital unions, singles, and future trends in intimate relationship styles.

3 Units

54 Lecture hours

SOC 116 (C-ID SOCI 150)

Introduction to Race and Ethnic Relations

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students interested in understanding the complexities of multi-ethnic, multi-racial societies. This course presents an overview of the structure and character of racial and ethnic relations in the United States and abroad. Students will gain knowledge of the treatment and experiences of a variety of racial and ethnic cohorts and gain insight into the complex social features of inter-group contact.

3 Units

54 Lecture hours

SOC 120 (C-ID SOCI 140)

Perspectives of Sex & Gender

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

In this course we will explore how gender shapes our lives and the world around us. Using a sociological perspective, we will examine gender as a social construction rather than a simple biological difference. Topics to be covered may include cultural ideas of gender, gender and the economy, politics, the media, families, and education. This course is designed for students who want to learn more about the social connections of gender and how the importance of gender differences are strengthened in our society today.

3 Units

54 Lecture hours

SOC 127 (C-ID SOCI 160)

Introduction to Criminology

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for students interested in the subject of criminology. The scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency will be emphasized. The course includes an analysis of the development of criminal law and the administration of criminal justice, the patterns of criminality and delin-

quency, the impact of crime on social change, and the labeling, identification, characteristics, and treatment of criminals and delinquents.

3 Units

54 Lecture hours

SOC 148

La Chicana: The Contemporary Mexican-American Female (Same as CHST 148)

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This introductory course explores the racial/ethnic identity formation of Chicanas/Mexican origin women in the United States. Course themes include an examination into the genesis of the term "Chicana", the emergence of Chicana feminism, and the intersection of race, gender, class, and sexuality in relation to the formation and study of Chicana identities. This course is an interdisciplinary one, drawing on methodologies from racial/ethnic studies, women/gender studies, queer studies, history, literature, sociology, and popular culture. This course is appropriate for students interested in furthering their understanding of the social construction of the Mexican American woman.

3 Units

54 Lecture hours

SOC 299

Directed Study in Sociology

Prerequisite: SOC 101

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

The course provides an opportunity for the student to expand their studies in Sociology beyond the classroom by completing a project or an assignment arranged by agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

SOC 325

Analysis of Social Change

Prerequisite: ENGL 325, SOC 101 or SOC 101H, SOC 102

This upper division General Education course is designed for students pursuing a Bachelors of Science degree in Automotive Technology

and is open to all students who have successfully completed the required prerequisites. Students will develop a broad understanding of social change within society through the examination of the various social mechanisms that lead to, promote, and eventually incorporate or quell the products and processes of social change. Special attention will be paid to industrialization, globalization, social movements, the implementation and evolution of technology and how social change is shaped by and produces unique social behavior.

3 Units

54 Lecture hours

SPANISH

Division of Communications & Languages

SPAN 101 (C-ID SPAN 100)

Spanish I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 101S and SPAN 102S)

This course is an introduction to the essentials of Spanish language: reading, listening, speaking, and writing skills. Various facets of Spanish-speaking cultures will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those students who do not have a Spanish language background who wish to learn to speak Spanish or who seek a degree in the Spanish language.

4.5 Units

72 Lecture hours

27 Lab hours

SPAN 101S

(Formerly SPAN 130)

Spanish for Spanish Speakers I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 101S and SPAN 102S)

This course is an introduction to the essentials of Spanish language: reading, listening, speaking, and writing

skills. Various facets of Spanish-speaking cultures will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those students who do have a Spanish language background and want to develop a better written and oral competency in the language, or who seek a degree in the Spanish language.

4.5 Units

72 Lecture hours

27 Lab hours

SPAN 102 (C-ID SPAN 110)

Spanish II

Prerequisite: SPAN 101, or completion of two years of high school Spanish with a grade of "C" or better

Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 101S and SPAN 102S)

This course is a continuation of the study of the essentials of Spanish language: reading, listening, speaking, and writing skills. The skills learned in SPAN 101 will be reviewed.

The class will increase vocabulary, grammar, and cultural knowledge to improve on the reading, listening, speaking and writing skills presented in SPAN 101. In this course the study of verb tenses and constructions is completed. Various facets of Spanish-speaking cultures will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those students who do not have a Spanish language background who wish to learn to speak Spanish or who seek a degree in the Spanish language.

4.5 Units

72 Lecture hours

27 Lab hours

SPAN 102S

(Formerly SPAN 131)

Spanish for Spanish Speakers II

Prerequisite: SPAN 101S

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or

appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 101S and SPAN 102S)

This course is a continuation of the essentials of the Spanish language: reading, listening, speaking, and writing skills. The skills learned in Spanish 101S will be reviewed. The class will increase vocabulary, grammar, and cultural knowledge to improve on the reading, listening, speaking and writing skills presented in Spanish 101S. In this course, the study of verb tenses and constructions is completed. It is designed to further improve the language skills of students with a Spanish language background. Various facets of Spanish-speaking cultures will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those students who do have a Spanish language background and want to develop a better written and oral competency in the language, or who seek a degree in the Spanish language.

4.5 Units

72 Lecture hours

27 Lab hours

SPAN 201 (C-ID SPAN 200)

Spanish III

Prerequisite: SPAN 102 or SPAN 102S or completion of three years of high school Spanish

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SPAN 201 or SPAN 201H)

This is an intermediate level course in which Spanish grammar is reviewed. It includes intensive practice in conversation and composition. Many aspects of Spanish culture are introduced in short stories by Latin-American and Spanish authors. Students strengthen their communications and written skills by analyzing these stories in Spanish. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for students who wish to broaden their

knowledge in Spanish as well as for those seeking a degree in the Spanish language.

4.5 Units
72 Lecture hours
27 Lab hours

SPAN 201H (C-ID SPAN 200)
Spanish III Honors

Prerequisite: SPAN 102 or SPAN 102S or completion of three years of high school Spanish with a grade of "C" or better; ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SPAN 201 or SPAN 201H)

This is an intermediate level course in which Spanish grammar is reviewed. It includes intensive practice in conversation and composition. Many aspects of Spanish culture are introduced in short stories by Latin-American and Spanish authors. Students strengthen their communications and written skills by analyzing these stories in Spanish. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for students who wish to broaden their knowledge in Spanish as well as for those seeking a degree in the Spanish language. This course is intended for students eligible for the Honors Program.

4.5 Units
72 Lecture hours
27 Lab hours

SPAN 202 (C-ID SPAN 210)
Spanish IV

Prerequisite: SPAN 201 or 201H, or completion of four years of high school Spanish with a grade of "C" or better
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is the continuation of SPAN 201. SPAN 202 is an intermediate level course in which Spanish language and culture is reviewed. It stresses written and oral proficiency as well as reading comprehension and composition. Many aspects of Spanish culture, literature, and history are analyzed in readings by Latin American and Spanish authors. Students strengthen their communication and writing skills by analyzing these stories in Spanish. In addition to classroom discussion, students are required to complete at least 27 hours of intensive individualized oral-aural practice in the Language Laboratory

via interactive websites, audio CDs, video programs, and films. The Language Laboratory work focuses on vocabulary, grammar, and cultural practices. This class is designed for those students who wish to broaden their knowledge in Spanish as well as for those interested in pursuing a degree in the Spanish language..

4.5 Units
72 Lecture hours
27 Lab hours

SPAN 299
Directed Study: Spanish

Transfers to: CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units
54 to 162 Lab hours

SPEECH

Division of Communications & Languages

SPCH 100 (C-ID COMM 130)
Interpersonal Communication

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

Interpersonal Communication is an introductory course focusing on interactions between two people. Designed to provide students with

greater understanding of communication in every day activities, the course focuses on self-discovery and strengthening the self-image; discovering and understanding the factors that influence communication behavior; and the establishment and maintenance of meaningful relationships in professional and social settings. This course is designed for speech communication majors or anyone with an interest in human communication.

3 Units
54 Lecture hours

SPCH 101 (C-ID COMM 110)
Public Speaking

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SPCH 101, SPCH 101H or SPCH 102)

This introductory course is designed to prepare students to be effective oral communicators in all aspects of public presentations including design and delivery of the public speech. The course is appropriate for all students interested in developing their public speaking knowledge and skills such as speech communication majors, future teachers, and future business leaders.

3 Units
54 Lecture hours

SPCH 101H (C-ID COMM 110)
Public Speaking Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SPCH 101, SPCH 101H or SPCH 102)

This introductory course is designed to prepare students to be effective oral communicators in all aspects of public presentations including design and delivery of the public speech. The course is appropriate for all students interested in developing their public speaking knowledge and skills such as speech communication majors, future teachers, and future business leaders. This course is designed for students eligible for the Honors Program.

3 Units
54 Lecture hours

SPCH 110 (C-ID COMM 160B)
Forensics: Speech and Debate Team

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; Prior or concurrent enrollment in SPCH 101 or SPCH 101H or SPCH 130 or SPCH 140
Transfers to: CSU

This course trains students to participate in Rio Hondo's Forensic Speech and Debate Team. Emphasis is placed on preparation, including research and writing; practice; and participation in intercollegiate speech and debate tournaments and/or community events. Students learn debate, oral interpretation, limited preparation, and platform speaking. This course is appropriate for students specializing in areas involving public speaking such as law, political science, drama, and instruction. Students who sign up for the lab hours are required to compete. This course may be taken once and repeated three times for credit.

1 to 4 Units
18 Lecture hours
54 to 162 Lab hours

SPCH 111

Forensics: Debate Research and Practice

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

This course involves participation in Rio Hondo's Forensic Debate Team. Students research, structure, and present debate cases. Students in this course will improve their ability to debate at intercollegiate debate tournaments. Emphasis is placed on successful participation in National Parliamentary Debate Association (NPDA) sanctioned tournaments. This course is recommended for students preparing for careers in law, political science, or community advocacy. This course may be taken once and repeated three times for credit.

2 Units
108 Lab hours

SPCH 112

Forensics: Oral Interpretation Laboratory

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: CSU

This course is designed to train students in the analysis and performance of literature at speech events attended by the Forensic Speech Team. Students develop skills to interpret and perform literature ranging from the play, screenplay, short story, novel, and poetry. Students gain an understanding of character and scene analysis as it applies to an oral interpretation performance. This course is recommended for students specializing in communication, performance studies, and creative literature.

This course may be taken once and repeated three times for credit.

2 Units
108 Lab hours

SPCH 130 (C-ID COMM 170)

Oral Interpretation

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This communication course focuses on the oral performance of various forms of literature, such as poetry, prose, and drama. The skills needed for making such public performances will be addressed and student knowledge of the various forms of literature will be enhanced. Emphasis is placed on creating the essence of characters in a text through facial, vocal, and kinetic methods. This course is appropriate for speech majors or anyone interested in public performance and literature.

3 Units
54 Lecture hours

SPCH 132

Readers Theatre

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This is a creative communication course focusing on group presentations of literature. Students will perform prose, drama, and/or poetry in groups so that a communicative message emerges and fosters imaginative responses in the minds of an audience. Emphasis is placed on the fusion between rhetoric, interpretation and acting. Readers Theatre is designed for Speech Communication majors and those interested in literature and performance.

3 Units
54 Lecture hours

SPCH 140 (C-ID COMM 120)

Argumentation and Debate

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SPCH 140 or SPCH 240)

This course is an introduction to the principles and techniques of argumentation and debate. Effective methods of research, critical analysis, reasoning, refutation, and listening are stressed. Through debate participation and analysis, students will gain the knowledge and skills to advocate and refute argumentative positions. This course is particularly appropriate for students anticipating entering occupations where argumentation, negotiation, and issue-analysis are likely to occur.

3 Units
54 Lecture hours

SPCH 150 (C-ID COMM 150)

Intercultural Communication

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is an introduction to intercultural communication. The emphasis is on applying intercultural theories and concepts to understand the influence of cultural membership upon the communicative situation. Students completing this course will improve their intercultural communication competence. This course is recommended for students in all fields; particularly Communication Studies majors and students who anticipate high interaction with people from diverse cultures.

3 Units
54 Lecture hours

SPCH 240 (C-ID COMM 190)

Argumentation and Discussion

Prerequisite: SPCH 140

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: SPCH 140 or SPCH 240)

This course gives the student expanded practice and theory in argumentation. Students further develop their argumentation knowledge and skills through debate participation, observation, and discussion. This course is particularly appropriate for students anticipating entering occupations involving extensive argumentation and deliberation such as law, communication, negotiation, and any area where argumentation and debate occur frequently.

3 Units
54 Lecture hours

TECHNICAL EDUCATION

Division of Career & Technical Education

TCED 044

OSHA Workplace Safety

Advisory: READ 043 or appropriate assessment

This course is intended for the individual who needs an overview and/or certification of both the California and Federal OSHA Safety Regulations for the General Industry Workplace. This course will cover a detailed overview of the rules and regulations, and discuss fire protection and prevention, material handling/storage/use and disposal, hand and power tools, welding and cutting, electrical safety, and fall protection. Upon completion of this course, (as well as passing the final exam), the student will receive a

10-hour OSHA Training Certificate of completion, which is good for life.

1 Unit

18 Lecture hours

TCED 045

Survey of Technology

Advisory: READ 043 or appropriate assessment

This course is an exploration of the various applied technologies pertinent to society today. Students will receive an introduction to auto technology, auto collision, drafting/architecture, geographical information systems, and fabrication. Lectures/demonstrations will focus on practical applications and career paths/job opportunities represented by the disciplines discussed. Students will be given hands-on opportunities to explore skills associated with the discipline. This course will provide the student an introduction to five different technology disciplines to help him/her determine a potential career path and/or make them a more informed consumer of these technologies.

3 Units

45 Lecture hours

27 Lab hours

TCED 046

Industrial Design & Visual Communications

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Intended for students interested in a career in Transportation Design or Product Design, this course introduces the student to the fundamentals of industrial design drawing and communication. Course begins with a lecture about possible career opportunities which exists within this profession. Students will learn to improve hand/eye coordination through repetition of given drawing task. Instruction emphasizes perfecting line, arc, circle and ellipse. Perspective drawing and shading are introduced. Culmination of the course will require the student to produce and present a solution to a given design problem and produce visual aids to describe product proposal and solution.

2 Units

18 Lecture hours

54 Lab hours

TCED 054

OSHA Workplace Safety II

Advisory: READ 043 or appropriate assessment

This course is intended for the individual who needs an intermediate-level overview and/or the number of hours required for certification of both the California and Federal OSHA Safety Regulations for the

General Industry and Construction Workplace. The course will cover a detailed overview of the rules and regulations, fire protection and prevention, material handling/storage and disposal, hand and power tools, welding and cutting, electrical safety, fall protection, scaffolds, excavations, concrete and masonry construction, steel erection, demolition, cranes/hoists/elevators and conveyors, lockout/tagout procedures, industrial hygiene and emergency action plans. Powered Industrial Trucks will also be covered during the course, meeting the requirement for OSHA Standard 1910.178. Upon completion of this course, (as well as passing the final exam and the powered industrial trucks operator safety training), the student will receive a 30-hour OSHA Training Certificate of Completion, which is good for life, and a powered industrial truck Certified Operator Card, which is good for 3 years.

4 Units

72 Lecture hours

TCED 060

Elementary Metallurgy

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This is an elementary course in the basic principles of metallurgy. It is designed for Welding and Machine Shop majors, but is suitable for all technology students. Emphasis is placed on terminology, numbering systems, methods of altering the properties of metals, and the effect on fabrication.

2 Units

36 Lecture hours

TCED 070

Foundation Skills for Technical Trades I

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is part one of a two-part series of courses designed to assist the student to become more effective and efficient in fundamental skills used in Technical Trades. The student will also gain an understanding of attitudes and behaviors that are beneficial to succeed in vocational settings and everyday life. Course content includes units of measure and measurement tools; converting fractions, decimals, and percentages; graphs and charts; perimeter, area, and volume; and personal finance. Emphasis will be placed on the practical application of these topics, and the use of a variety of hands-on classroom activities is included.

3 Units

54 Lecture hours

TCED 080

Foundation Skills for Technical Trades II

Prerequisite: TCED 070

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is part two of a two-part series of courses designed to assist the student to become more effective and efficient in fundamental skills used in Technical Trades. The student will also gain an understanding of attitudes and behaviors that are beneficial to succeed in vocational settings and everyday life. Course content includes solving technical problems using value analysis, graphs and charts, and personal growth. Emphasis will be placed on the practical application of these topics, and the use of a variety of hands-on classroom activities is included.

3 Units

54 Lecture hours

TCED 090

Blueprint Reading for Industry

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is for all students interested in pursuing certificates, degrees and careers related to manufacturing, welding, and drafting technologies. The course presents an introduction to the use of engineering documents or blueprints as used in industrial applications and focuses on interpreting and visualizing technical drawings in order to read and understand "The Language of Industry." Principles of reading drawings, specifications, projection principles, working drawings, details, assemblies, and pictorial representations are examined and discussed. The course is also helpful for apprentices and employees in all areas of technology including planning, purchasing, machine trades, welding/fabrication, future engineers, and inspection.

2 Units

27 Lecture hours

27 Lab hours

TCED 299

Directed Study in Technical Education

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Technical Education beyond the classroom by completing a project

or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.
1 to 3 Units
54 to 162 Lab hours

TELEVISION

Division of Arts & Cultural Programs

TV 135

Creative Digital Video

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This is a basic course in film-style production techniques for drama and music videos. Topics will include creating a story treatment, script writing, story boarding, camera handling, lighting, audio, and simple editing. Students will work in teams and crew all positions, including writer, producer, director, 1st assistant director, 2nd assistant director, lighting director, gaffer, camera operator, boom operator, and editor. Emphasis will be placed on defining the content, structure, and style of the production. This course may be of interest to students interested in both film and television production.

3 Units

36 Lecture hours

54 Lab hours

THEATRE

Division of Arts & Cultural Programs

THTR 101 (C-ID THTR 111, THTR 112) Theatre Arts Appreciation

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: UC, CSU

This course is designed for the student interested in an overview of the entire field of theatre. The practice and theory of the following will be explored: costume, set and lighting design, acting, directing, playwriting, criticism, play structure, theatre architecture and producing. Included will be a brief historical overview. At

least one field trip to a professional theatre production will be organized.

3 Units

54 Lecture hours

THTR 105 (C-ID THTR 113) The History and Development of the Theatre

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: THTR 105 or THTR 105H)

This course is designed for the student with an interest in history or theatre. It will cover humanity's relationship with theatre from primitive tribal cultures through today's large musicals and blockbuster hits. The class explores the way societies' religious, political and social structures were presented and shared through their theatre. The class will investigate major plays, playwrights and historic theatrical techniques through lectures, discussion, field trips and films.

3 Units

54 Lecture hours

THTR 105H (C-ID THTR 113) The History and Development of the Theatre Honors

Prerequisite: ENGL 101

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU (Students will receive credit for only one of the following courses: THTR 105 or THTR 105H)

This course is designed for the student with an interest in history of the theatre. It will cover humanity's relationship with theatre from primitive tribal cultures through today's large musicals and blockbuster hits. The class explores the way societies' religious, political and social structures were presented and shared through their theatre. The class will investigate major plays, playwrights and historic theatrical techniques through lectures, discussion, field trips and films. This course is designed for students eligible for the Honors program.

3 Units

54 Lecture hours

THTR 110 (C-ID THTR 151) Principles of Acting

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who is interested in acting and other areas of theatre, film and Television, whether as a profession or as a hobby. The class explores the theory, practice and techniques of acting. Emphasis is placed on theatre games and exercises culminating in

the presentation of scenes from contemporary dramatic literature.

3 Units

36 Lecture hours

54 Lab hours

THTR 111 (C-ID THTR 152) Principles of Acting

Prerequisite: THTR 110

Transfers to: UC, CSU

This course is for the student who wants to continue the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through exercises, character analysis, monologues, and scenes.

3 Units

36 Lecture hours

54 Lab hours

THTR 112 Acting for the Camera

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student interested in acting techniques for film, television and commercials. The class will explore the styles, language and technical demands of each medium. Slating, voice, blocking & memorizing will be covered along with Career advice such as photos and resumes, agents, unions, auditioning & showcases. Students will work with the camera and review the results to develop their skills.

3 Units

36 Lecture hours

54 Lab hours

THTR 150 (C-ID THTR 171) Stagecraft I for Theatre, TV, and Film

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

The course is designed for the student who wishes to gain a basic understanding of the technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, lighting equipment, sound equipment, properties and wardrobe as well as the organization and management of stage activity and stagecraft terminology. The student will study the aesthetics and practical application principles of stage scenic, sound and lighting design. Students are assigned a specific crew responsibility that directly relates to a college theatre production.

3 Units

18 Lecture hours

108 Lab hours

THTR 151
Stagecraft II for Theatre, TV, and Film

Prerequisite: THTR 150

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wishes to expand the skills and concepts acquired in Stagecraft I for Theatre, TV, and Film (THTR 150). Topics such as the technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, lighting equipment, sound equipment, properties and wardrobe as well as the organization and management of stage activity and stagecraft terminology are revisited and expanded upon. The student will additionally do extensive study of the aesthetics and practical application principles of set design, sound design, and lighting design. Students are assigned a specific crew duty such as light board operator, sound operator or stage crew lead with added responsibility that directly relates to a college theatre production.

3 Units

18 Lecture hours

108 Lab hours

THTR 152
Stagecraft III for Theatre, TV, and Film

Prerequisite: THTR 151

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wishes to further expand the skills and concepts acquired in Stagecraft I and II for Theatre, TV and Film (THTR 150 and 151). Technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, lighting equipment, sound equipment, properties and wardrobe as well as the organization and management of stage activity and stagecraft are examined in greater depth. The student will complete an in depth study of the theatrical design process designing scenery, properties, lighting and/or sound for Rio Hondo College theatrical productions. Students are assigned a specific crew lead with supervisory responsibility that directly relates to a college theatre production.

3 Units

18 Lecture hours

108 Lab hours

THTR 153 (C-ID THTR 173)
Lighting Design and Production for Theatre, TV, and Film

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Prerequisite: THTR 150

Transfers to: UC, CSU

The course is designed for the student who wants to gain an understanding and appreciation of the roles light and lighting design play in the theatrical production. Students will gain understanding in lighting design theory, function and esthetics. Students will be able to hang, focus, color, cable and strike conventional and automated lighting fixtures as well as identify and select appropriate types of lighting fixtures, cables, control and power distribution equipment for a given purpose. Electrical and operational safety will receive special emphasis. Students will be able to operate lighting consoles at a proficient level.

3 Units

18 Lecture hours

108 Lab hours

THTR 154
Sound Design and Production for Theatre, TV, and Film

Prerequisite: THTR 150

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wants to gain an understanding and appreciation of the roles audio and audio design play in the theatrical production. Students will gain an understanding in audio design, function and esthetics. Students will be able to rig, cable, troubleshoot, strike and maintain analogue and digital audio equipment as well as identify and select appropriate types of microphones, cables, speakers and sound amplification equipment for a given purpose. Electrical and operational safety will receive special emphasis. Students will be able to operate audio mixing consoles at a proficient level.

3 Units

18 Lecture hours

108 Lab hours

THTR 159 (C-ID THTR 192)
Stage Crew Activity

Advisory: READ 022 or appropriate assessment

Transfers to: UC, CSU

The course is designed for the student to gain practical hands on technical experience working backstage on Arts and Cultural Programs approved public performances of theatrical, musical or dance productions and is taken in conjunction with

Technical Theatre courses. The course may be taken once and repeated three times for credit.

1 to 3 Units

54 to 162 Lab hours

THTR 160
Introductory Playwriting Screenwriting

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student interested in the art of writing for theatre or film. It will include writing exercises, theatre field trips and a final staged reading of finished scripts. Students will complete a one-act or 10-minute play which will be considered for production the following semester.

3 Units

36 Lecture hours

54 Lab hours

THTR 161
Playwriting Screenwriting for Production

Prerequisite: THTR 160

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to work on their playwriting/screenwriting craft with an eye to the professional market. Students will write, rewrite and polish works written with the intention of production. Students will read plays, screenplays, and teleplays that have been produced recently. Students will realistically appraise the marketability of their script through staged readings by student actors for an audience.

3 Units

36 Lecture hours

54 Lab hours

THTR 164
Theatre Production Lab I

Corequisite: THTR 150

Advisory: READ 022 or appropriate assessment

Transfers to: CSU

This class is intended for students interested in exploring a career in entertainment production. The course provides a hands-on introduction to all aspects of entertainment production, including scenery, lighting, audio, costumes and properties. The student will learn the fundamentals of constructing, painting and rigging scenery, hanging and focusing lighting equipment, setting up audio systems and/or building costumes or props for the performing arts programs at Rio Hondo College.

1 to 2 Units

54 to 108 Lab hours

THTR 165**Theatre Production Lab II**

Prerequisite: THTR 164

Corequisite: THTR 151

Transfers to: CSU

This class is intended for students interested in careers in entertainment production. The course builds upon the basic skills acquired in THTR 164, with more sophisticated tasks and greater responsibilities in scenic construction, painting and rigging, stage lighting operations, stage audio systems and/or costume shop assignments for the performing arts programs at Rio Hondo College.

1 to 2 Units

54 to 108 Lab hours

THTR 166**Theatre Production Lab III**

Prerequisite: THTR 165

Corequisite: THTR 152

Transfers to: CSU

This class is intended for students pursuing careers in entertainment production. The course builds upon the skills acquired in THTR 165, providing leadership roles in scenic construction, painting and rigging, stage lighting operations, stage audio systems and/or costume shop assignments for the performing arts programs at Rio Hondo College.

1 to 2 Units

54 to 108 Lab hours

THTR 170 (C-ID THTR 191)**Theatre Rehearsal and Performance**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; THTR 110

Limitations: Acting Students must audition and Technical Students must interview prior to participating in the course

Transfers to: UC, CSU

This course is for the student who wants to participate in a stage production that is part of the American College Theatre Festival (ACTF) competition. Students will be adjudicated by judges representing ACTF during public performances at Rio Hondo and some will be chosen to compete at the regional and national festivals in the areas of acting, writing, stage managing, directing and stage design. Students are given an opportunity to be part of a theatre company in the organization of full-length and/or one-act plays under the guidance of a faculty director. This course may be repeated three times for credit.

3 Units

18 Lecture hours

108 Lab hours

THTR 171**Musical Theatre Rehearsal and Performance**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or

appropriate assessment

Limitations: Performing Students must audition/interview and Technical/Support Students must interview prior to participating in the course

Transfers to: UC, CSU

This course is designed for the student who wants to be involved, onstage or backstage, in the creation and presentation of a musical production. This class introduces the student to the various aspects that make up a musical and, based upon auditions and interviews the student can take part in Music, Acting, Technical Theatre, Design, Dancing or Stage Managing under the supervision of a faculty director and other theatre, music and dance professionals.

3 Units

18 Lecture hours

108 Lab hours

THTR 172**Performing and Preparing the Comedy**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; THTR 110 or THTR 150

Transfers to: UC, CSU

This course is designed for the student who wants to study aspects of theatre production as they are created and expressed through comedic drama. The class will explore comedy genres, acting techniques, physical communication and comic objectives. Students will be part of a full-length or one-act production or a combination of both. Students may participate in a variety of activities including acting, directing, production, management, etc. Auditions will determine the specific assignment.

3 Units

18 Lecture hours

108 Lab hours

THTR 173**Rehearsal and Performance:****The Style Play**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; THTR 110 or THTR 150

Transfers to: UC, CSU

This course is designed for the student who wants to learn how to use performance styles and acting techniques in the preparation and performance of a play with a specific style of theatricality. These plays could include the styles of Comedy of Manners, Melodrama, Surrealism, Realism, Expressionism, Futurism and more. Students will be involved rehearsing a full-length or short play and then presenting it to a public audience. Students may participate in a variety of activities including acting, directing, management, dramaturg, etc. Auditions and/or interview will determine most of the

specific assignments.

3 Units

18 Lecture hours

108 Lab hours

THTR 174**Costume Design and Production for Theatre, TV, and Film**

Prerequisite: THTR 150

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who seeks to gain an understanding and appreciation of costume techniques used for the theatre and other entertainment industries. The student will gain the practical knowledge and experience necessary to work in a costume shop; an understanding of costume history; basic costume design including sketching; basic costume construction including alteration and sewing; costume design tools, materials, fabrics, textiles, and crafts; costume sourcing practices; and, backstage costume preparation and practices for productions. Students will be able to identify period costumes (garments and accessories), analyze the effectiveness of costumes in a production, draft a pattern in order to sew/construct a garment, and source costumes needed for a production through vendors.

3 Units

36 Lecture hours

54 Lab hours

THTR 175**The Original Play in Production**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; THTR 110 or THTR 150 or THTR 160

Transfers to: UC, CSU

This course is designed for the student who wants to be part of the process involved in the creation of a new play. The class will explore how plays are structured and how characters fleshed out by living actors affect the development of new theatre. Playwrights, actors, directors and designers will learn how to collaborate with each other. Students will be involved in a new full-length, one-act, or devised play. Students may participate in a variety of activities including acting, directing, production, management, playwriting, dramaturg, etc. Auditions will determine most of the specific assignments.

3 Units

18 Lecture hours

108 Lab hours

THTR 180**Touring Theatre Local I**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or

appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wishes to gain a basic understanding of the rigorous requirements of touring a theatre production, including acting, lighting, and maintaining props, costumes and sets. Students are assigned a specific responsibility that directly relates to a production that tours locally.

2 to 4 Units

18 to 36 Lecture hours

54 to 108 Lab hours

THTR 181

Touring Theatre Local II

Prerequisite: THTR 180

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wishes to expand the skills and concepts acquired in THTR 180 regarding the rigorous requirements of touring a theatre production, including acting, directing, scenic design, management, lighting, construction and maintenance of props, costumes and sets. Students are assigned a specific responsibility that directly relates to a production that tours locally.

2 to 4 Units

18 to 36 Lecture hours

54 to 108 Lab hours

THTR 186

Touring Theatre: The American College Theatre Festival

Prerequisite: THTR 170, THTR 172, THTR 173, or THTR 175

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This class is for the student who wants to compete against students at other colleges for theatre scholarships and recognition. It is open to those who have been nominated for an Irene Ryan scholarship, a Design, Stage Managing, Directing or Playwriting award or have been chosen as a partner or are part of an officially invited production or scene. The first part of the class the student will prepare for the competition and the last part of the class will be the trip to the festival. Usually in the 2nd week of February, the festival takes place in either California, Arizona, Utah, Nevada or Hawaii. At the festival the student will compete in their nominated area, see invited plays, audition for plays and attend a variety of workshops under the supervision of the instructor. This course may be repeated three times for credit.

2 to 4 Units

18 to 36 Lecture hours

54 to 108 Lab hours

THTR 210

Acting Workshop: Devising

Prerequisite: THTR 110 or THTR 150 or THTR 153 or THTR 170 or THTR 171 or THTR 174

Transfers to: UC, CSU

This class is for the student who wants to create their own work, whether they are actors or non-actors. The class will study the history of devising (also known as collective creation), learn techniques of devising, and create, research, develop, rehearse and present a devised project. Some knowledge of traditional theatre is helpful for this class. Some semesters a public performance will be presented.

3 Units

36 Lecture hours

54 Lab hours

THTR 215

Acting: A Course in Auditioning and Cold Reading

Prerequisite: THTR 110

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course is designed for the student who wants to be prepared and ready for academic, community or professional auditions. The student will work with the teacher at each class on selection of material, analyzing the text, presentation of material, presentation of self, personal appearance, cold readings, relaxing for an audition; preparation of resumes and pictures, etc, on line sources, etc. By the end of the semester the student will have a variety of audition pieces ready.

3 Units

54 Lecture hours

THTR 230

Principles of Directing

Prerequisite: THTR 110

Advisory: READ 043 or appropriate assessment

Transfers to: UC, CSU

This course is designed for the student who wants to develop their ability to work with actors, interpret drama and to stage plays. It will cover the history and the techniques of the stage director. Emphasis is placed on class activities such as exercises and scenes. Career opportunities, stage management and assistant directing are also covered. It is a requirement for the Theatre Arts major.

3 Units

36 Lecture hours

54 Lab hours

THTR 231

Principles of Directing II

Prerequisite: THTR 230

Advisory: READ 043 or appropriate

assessment

Transfers to: UC, CSU

This course is designed for the student majoring in Theatre Arts. The class is a continuation of Theatre Arts 230. Techniques in casting, rehearsing, picturization, characterization, tempo and climax in play direction are covered. Students will direct a 10-minute play with other students.

3 Units

36 Lecture hours

54 Lab hours

THTR 286

Ballet Folklorico

Prerequisite: See request for exception

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

Transfers to: UC, CSU

This course is designed to give a general knowledge of the regional dance styles of Mexico and its cultural aspects. Instruction will focus on the development of technique in Ballet Folklorico movements. Participation in public performance is required.

2 Units

18 Lecture hours

54 Lab hours

18 Other hours

THTR 290

Cooperative Work Experience/Internship for Theatre Arts Related Fields

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course supports and reinforces on-the-job training in business, industrial, non-profit, studio, community and professional theatre organizations under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of theatre arts and have completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units

3 Lecture hours

60 to 300 Other hours

THTR 299**Directed Study: Theatre***Transfers to: CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of three (3) units within a discipline, and may not accumulate more than a total of nine (9) units college wide.

1 to 3 Units**54 to 162 Lab hours****VOCABULARY****Division of Communications & Languages****VOCB 025****Intermediate Vocabulary***Advisory: READ 021 or appropriate assessment*

This course is intended for students who want to develop precollegiate-level reading, writing, and speaking vocabulary. Students will learn the meaning of new words commonly used in college textbooks and lectures, and they will use them in written and spoken sentences. Students will also gain knowledge of word roots to reinforce their understanding of words. This is a non-degree course and is offered on a pass/no pass basis.

3 Units**54 Lecture hours****VOCB 101****Vocabulary & Etymology***Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or**appropriate assessment**Transfers to: CSU*

This course offers the student an opportunity to develop a college level vocabulary. The course emphasizes an understanding of the etymology, definition, and usage of words so that students gain a comprehensive understanding of the meanings of words and how they are used. Additionally, students will study general and specialized terms used in courses across the curriculum. In order to internalize word meanings successfully, students will work in individual, small group, and whole class settings.

3 Units**54 Lecture hours****VOCATIONAL NURSING****Division of Health Sciences & Nursing****VN 061****Basic Fundamentals of Nursing***Prerequisite: HS 060; PSY 101**Corequisite: VN 061L*

This course is designed for the entry level vocational nursing student with a focus on the nursing process and its application in medical/surgical settings. The role of the Licensed Vocational Nurse in providing care for patients in a variety of situations is discussed. This course is open to students enrolled in the Vocational Nursing program and is required for Vocational Nursing licensure.

3.5 Units**63 Lecture hours****VN 061L****Basic Fundamentals of Nursing Laboratory***Prerequisite: HS 060; PSY 101**Corequisite: VN 061**Advisory: READ 043 or appropriate assessment*

This course is designed to provide the entry level vocational nursing student with the opportunity to learn basic nursing skills in the Health Science Skills laboratory and the clinical setting within the context of the nursing process. The student will apply the role of the Licensed Vocational Nurse in the clinical medical surgical setting. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure. Offered on a pass/no pass basis.

5 Units**270 Lab hours****VN 071L****Introduction to Medical-Surgical Nursing Lab***Prerequisite: VN 061 and VN 061L*

This course will provide the student with the opportunity to use the nursing process at a beginning level to care for patients in the clinical setting. The student will develop competency in data collection and basic nursing skills. Special emphasis will be placed on the care of the patient with problems of the endocrine, musculoskeletal and integumentary systems, as well as the older adult. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure. Offered on a pass/no pass basis.

3.5 Units**189 Lab hours****VN 072L****Intermediate Medical-Surgical Nursing Lab***Prerequisite: VN 071L; VN 074 and VN 075**Corequisite: VN 073*

This course will provide the student with the opportunity to use the nursing process with increasing independence in providing care for patients in the clinical setting. The student will increase competency in data collection and nursing skills. Special emphasis will be placed on the care of the patient with problems of the cardiovascular respiratory, gastrointestinal and renal systems. This course is open to students enrolled in the Vocational Nursing program and is required for Vocational Nursing licensure. Offered on a pass/no pass basis.

3.5 Units**189 Lab hours****VN 073****Basic Pharmacology***Prerequisite: VN 061 and VN 061L**Advisory: HS 045 and READ 043 or appropriate assessment*

This is an introductory course of basic techniques and computations used in the administration of medications. Completion of the course prepares the student to safely administer medications to patients under the supervision of the nursing instructor. This course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nursing Licensure.

2 Units**36 Lecture hours****VN 074****Nursing Care of Patients with Integumentary/Orthopedic Problems and Concepts of Gerontologic Nursing***Prerequisite: VN 061 and VN 061L*

Using the medical model, the nursing

process, and Erickson's psychosocial theory of human development, this course is designed to prepare the vocational nursing student with the foundational knowledge necessary to care for the aging patient, and patients with disorders of the musculoskeletal and integumentary systems. This course is open to students enrolled in the Vocational Nursing Program.

2.5 Units
45 Lecture hours

VN 075
Nursing Care of Patients with Endocrine Problems

Prerequisite: VN 061 and VN 061L
This course focuses on the use of the nursing process in caring for individuals with disturbances of the pancreas, thyroid, parathyroid, adrenal and pituitary glands. The pathophysiology, assessment data, nursing problems, medical and nursing interventions for patients with endocrine problems are discussed. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure.

1 Unit
18 Lecture hours

VN 076
Nursing Care of Patients with Renal, Urinary and Gastrointestinal Problems

Prerequisite: VN 071L; VN 074 and VN 075
Corequisite: VN 073
This course focuses on the application of the nursing process in medical surgical situations for the patient with gastrointestinal and renal problems. Emphasis is placed on the application of principles of nutrition in caring for patients with gastrointestinal and renal dysfunction. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nurse licensure.

3.5 Units
63 Lecture hours

VN 077
Nursing Care of Patients with Cardiovascular and Respiratory Nursing Problems

Prerequisite: VN 071L; VN 074 and VN 075
Corequisite: VN 073
Using the medical model, the nursing process, and Erickson's psychosocial theory of human development, this course is designed to prepare the vocational nursing student with the foundational knowledge necessary to care for patients with cardiovascular and respiratory disorders. This course is open to students enrolled in the Vocational Nursing Program.

3 Units
54 Lecture hours

VN 081L
Maternal and Pediatric Nursing Lab

Prerequisite: VN 072L; VN 073, VN 074, VN 075, VN 076 and VN 077
Corequisite: VN 084

This course will provide the student with the opportunity to use the nursing process with increasing independence in providing care for patients in the clinical setting. The student will increase competency in data collection and nursing skills. Special emphasis will be placed on the care of the pediatric, antepartum, intrapartum, postpartum and newborn patient. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nurse licensure. Offered on a pass/no pass basis.

2.5 Units
135 Lab hours

VN 082L
Advanced Medical/Surgical Nursing Laboratory

Prerequisite: VN 081L and VN 084
This course will provide the student with the opportunity to apply learned leadership skills within the Vocational Nurse scope of practice. The student will utilize the nursing process with increasing independence and accountability in providing care for patients in the clinical setting. Special emphasis will be placed on the care of medical/surgical patients with complex problems, neurological system disorders and oncological problems. The student will have the opportunity to further develop the necessary communication skills needed to provide care for patients with mental health problems. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nurse licensure.

3.5 Units
189 Lab hours

VN 083
Applied Pharmacology

Prerequisite: VN 073
Using the medical model, the nursing process, and Erickson's psychosocial theory of human development, this course is designed to prepare the vocational nursing student with the advanced knowledge necessary to safely administer medications to patients and accurately assess the patient response to medication therapy under the supervision of the nursing instructor. This course is open to students enrolled in the Vocational Nursing Program.

2 Units
36 Lecture hours

VN 084
Maternal and Pediatric Nursing

Prerequisite: VN 072L; VN 073, VN 074, VN 075, VN 076 and VN 077
Corequisite: VN 081L

This course focuses on growth and development with concomitant problems traced from newborn through infancy, toddler, preschool, school-age and the adolescent. Nursing care appropriate to the developmental stage of the child and the focus of the pediatric problems including biological and psychological problem's affecting the well and hospitalized child and family. This course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nursing Licensure.

4 Units
72 Lecture hours

VN 085
Leadership & Supervision for the Vocational Nurse

Prerequisite: VN 072L; VN 073, VN 074, VN 075, VN 076, and VN 077

This course will introduce principles of leadership, group dynamics, delegation, and effective communication in working relationships for the vocational nurse. Emphasis is placed on delegation and supervision of nursing assistants, other vocational nurses, and unlicensed assistive personnel. The course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nurse licensure.

0.5 Units
9 Lecture hours

VN 086
Mental Health and Neurological Nursing Problems

Prerequisite: VN 081L and VN 084
This course presents mental health concepts that relate to emotional issues influencing a patient's well-being and problems related to the neurological system. Emphasis will be placed on the nursing process, as it relates to problems of neurological function and mental health. This course is open to those students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure.

3 Units
54 Lecture hours

VN 087
Nursing Care of Patients with Cancer

Prerequisite: VN 072L and VN 081L; VN 073, VN 074, VN 075, VN 076, VN 077 and VN 084

This course focuses on the application of the nursing process in medical-surgical situations for the patient with cancer diagnoses of various body systems and immune deficiency disorders. Emphasis is placed on the physical, psychological, and psycho-

social effects of diagnosis, medical therapy, and nursing intervention with the application of principles of nutrition, pharmacokinetics, and palliative care in caring for patients with cancer. The course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nurse licensure.

1 Unit

18 Lecture hours

WELDING

Division of Career & Technical Education

WELD 040

Introduction to Welding Processes

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This is an introductory class designed to familiarize the student with several welding processes that are currently used in the welding and metal fabrication industry. This course offers an overview and basic introduction to the theory and practice of a variety of welding and metal cutting methods. This course will emphasize safety, theory, procedure, and practical skill development.

2 Units

18 Lecture hours

54 Lab hours

WELD 045

Basic Electric Arc Welding

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is intended for the student who wants to progress to a basic level of welding processes and further their skills in manual and semi-automatic electric arc welding methods and techniques. This course emphasizes skills in Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW). The course also focuses on safety, theory, characteristics and settings for power supplies and welding units, electric current settings, electrode identification and selection, welding positions, and welding of ferrous and non-ferrous metals. Special emphasis will be placed on developing proficiency and speed for high-volume production applications.

2 Units

18 Lecture hours

54 Lab hours

WELD 050

Semi-Automatic Welding Processes

Prerequisite: WELD 040

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is intended for the student who wants to progress to an intermediate level of welding processes and further their skills in wire-fed, semi-automatic welding methods and techniques. This course emphasizes skills in Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW). The course also focuses on safety, theory, characteristics and settings for power supplies and wire feeding units, electric current settings, electrode identification and selection, welding positions, and welding of ferrous and non-ferrous metals. Special emphasis will be placed on developing proficiency and speed for high volume production applications.

4 Units

36 Lecture hours

108 Lab hours

WELD 055

Manual Electric Arc Welding Processes

Prerequisite: WELD 040

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is intended for the student who wants to progress to an intermediate level of welding processes and further their skills in manual electric arc welding methods and techniques. This course emphasizes skills in Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW). The course also focuses on safety, theory, characteristics and settings for power supplies and welding units, electric current settings, electrode identification and selection, welding positions, and welding of ferrous and non-ferrous metals. Special emphasis will be placed on developing proficiency and speed for high volume production applications.

4 Units

36 Lecture hours

108 Lab hours

WELD 060

Production Welding Techniques

Advisory: READ 043 or appropriate assessment; WELD 045

This is an intermediate level course focused on welding techniques used in high-volume production manufacturing environments. Students gain proficiency using pulsed-arc and non-pulsed-arc GMAW and GTAW processes on carbon steel, stainless steel, and aluminum materials. Correct use of welding fixtures, positioners, and other auxiliary equipment are covered. Emphasis is placed on using

shop safety in addition to developing proper working procedures.

4 Units

36 Lecture hours

108 Lab hours

WELD 065

Introduction to Gas Tungsten Arc Welding

Arc Welding

Prerequisite: WELD 040

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course introduces the principles and practices of gas tungsten arc welding (GTAW), including set-up/use of GTAW equipment and safe use of tools and equipment. Instruction and practice is provided for gaining proficiency welding carbon steel, stainless steel, and aluminum weld joints in the flat and horizontal positions. Fundamentals of the GTAW process, correct consumables, equipment, and pre-weld preparation will be covered.

4 Units

36 Lecture hours

108 Lab hours

WELD 070

Advanced Gas Tungsten Arc Welding

Prerequisite: WELD 065

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course provides further advancement of knowledge and skills in gas tungsten arc welding (GTAW). Emphasis is placed on developing proficiency in welding carbon steel, stainless steel, and aluminum weld joints in the vertical and overhead position. This course exposes students to using positioners, welding fixtures, and tooling commonly used in the workplace. Preparation for welding certification is covered.

4 Units

36 Lecture hours

108 Lab hours

WELD 075

Certification Welding I

Prerequisite: WELD 055

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is an advanced course offering specialized instruction necessary for passing the City of Los Angeles Department of Building & Safety (LADBS) certified welder performance examinations. Emphasis will be placed on building skills in Shielded Metal Arc Welding (SMAW), Flux Cored Arc Welding (FCAW), and Gas Metal Arc Welding (GMAW) as applicable to acquire LADBS certified welder classifications in structural steel, light gauge steel, and structural aluminum. Safety, welding codes, welding pro-

cedures and techniques, inspection requirements, nondestructive testing, and destructive testing will be covered. This course may be repeated once for certification or licensure standards, only by permit from the division.

4 Units

36 Lecture hours

108 Lab hours

WELD 080

Certification Welding II

Prerequisite: WELD 055

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is intended for the student who wants to progress to an advanced level of welding processes and certification. This course offers specialized training and instruction which are necessary to take and pass the written test portion of the City of Los Angeles Department of Building & Safety (LADBS) Certified Welder Examination. This course emphasizes specific skills in Shielded Metal Arc Welding (SMAW), Flux Cored Arc Welding (FCAW), and Gas Metal Arc Welding (GMAW) as it applies to Certification in Structural Steel, Light Gage Steel, and Structural Aluminum. The course also focuses on safety, welding codes, test preparation, procedures, and destructive testing. Special emphasis will be placed on developing proficiency in order to successfully pass the LADBS exam. This course may be repeated once for certification or licensure standards, only by permit from the division.

3 Units

54 Lecture hours

WELD 081

Pipe Welding - Level I

Prerequisite: WELD 075

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is the first in a series of courses for welding of pipe using the shielded metal arc welding (SMAW) process. The course will cover safety procedures, electrode selection, weld joint preparation, and weld quality. Emphasis will be placed on student proficiency in welding pipe in the 1G, 2G and 5G positions in accordance with American Petroleum Institute API-1104: Standard for Welding Pipelines and Related Facilities.

4 Units

36 Lecture hours

108 Lab hours

WELD 082

Pipe Layout and Fabrication

Prerequisite: WELD 075

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course examines the fundamental concepts used in the fabrication of carbon steel pipe connections and fittings. Emphasis will be placed on constructing lateral, sleeve, and branch pipe connections commonly used in the piping industry. Use of manual and mechanized thermal cutting equipment is covered. Related math calculations and cutting techniques will be utilized to prepare students for entry into a pipe fitting related field.

4 Units

36 Lecture hours

108 Lab hours

WELD 083

Pipe Welding II

Prerequisite: WELD 081

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is second in a series of courses for welding of carbon steel pipe using the shielded metal arc welding (SMAW) and gas tungsten arc welding (GTAW) processes. The course will cover safety procedures, electrode selection, weld joint preparation, and weld quality. Emphasis will be placed on achieving proficiency in welding pipe in the 1G, 2G and 6G positions in accordance with American Society of Mechanical Engineering (ASME) pressure vessel codes.

4 Units

36 Lecture hours

108 Lab hours

WELD 084

Pipe Welding - Level III

Prerequisite: WELD 083

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This course is an advanced course to provide further development in pipe welding skills leading to certification. The course will survey the theory and application of welding carbon steel pipe using gas metal arc welding (GMAW) in the 2G, 5G, and 6G positions using downhill and uphill progression. Emphasis will be placed on the development of advanced skills in welding pipe in accordance with the American Society of Mechanical Engineers (ASME) and the American Welding Society (AWS) codes.

4 Units

36 Lecture hours

108 Lab hours

WELD 085

Introduction to Metal Fabrication

Prerequisite: WELD 040; WELD 050; WELD 055; WELD 065

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

This is an introductory course that

examines the theory and application aspects of metal fabrication. It covers the safe and effective use of metal fabricating equipment and tools to complete assigned projects. This course also includes hands-on instruction and practice in cutting, grinding, drilling, rolling, bending and welding tasks in accordance with supplied shop drawings.

3 Units

27 Lecture hours

81 Lab hours

WELD 299

Directed Study in Welding Technology

Prerequisite: 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment

Transfers to: CSU

This course provides an opportunity for the student to expand their studies in Welding Technology beyond the classroom by completing a project or an assignment arranged by an agreement between the student and instructor. The student is required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. Students must possess a 2.5 overall GPA, a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. Students may take a maximum of 3 units of Directed Study within a discipline and 9 units college-wide.

1 to 3 Units

54 to 162 Lab hours

WILDLAND FIRE TECHNOLOGY

Division of Public Safety

WFT 040

Firefighter Type 2 (S130)

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course provides students seeking wildland training and certification at the Type 2 level. This course provides instruction in wildland fire behavior, hazard recognition, human factors in high-risk environments, basic incident command system, radio operations, and documentation. Classroom and field exercises will prepare the student for a position as a Firefighter Type 2 (FF2). This course meets the National Wildfire Coordinating Group's (NWCG) requirements for S-130.

2 Units

32 Lecture hours

12 Lab hours

WFT 041**Firefighter Type 1 (S131)**

Prerequisite: WFT 040

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course prepares interested students with additional leadership and skill sets needed to make leadership and tactical decisions on wildland fire incidents. This course provides instruction in the Risk Management Process, fireline reference materials, portable fire pump operations, staging area standard operating procedures and practices. Classroom and field exercises will prepare the student for a position as a Firefighter Type 1 (FFI) as recognized by the National Wildfire Coordinating Group's (NWCG).

2 Units

32 Lecture hours

12 Lab hours

WFT 042**Portable Pumps and Water Use (S211)**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course provides students with practical knowledge and skills in the use of portable fire pumps and related equipment during wildland fire incidents. The course consists of three skill areas: supply, delivery, and application of water. Students will be required to demonstrate their knowledge of correct water use, basic hydraulics, and equipment care. Field exercises, demonstrations, and evaluations will cover set up, operation, and maintenance of pump equipment. This course meets the National Wildfire Coordinating Group's (NWCG) requirements.

1.1 Units

16 Lecture hours

12 Lab hours

WFT 043**Wildland Fire Chain Saws (S212)**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course provides the basic knowledge, understanding, function, maintenance, and use of internal combustion engine powered chain saws. The student will also learn the tactical use of wildland fire chain-saws. Field exercises support entry level training for fighters with little or no previous experience in operating a chain saw. The field exercises will provide students with hands-on cutting experience in surroundings similar to fire line situations. This is an entry level course for students interested in wildland fire suppression and is highly recommended prior to enrolling in the intermediate level wildland fire related course.

This course meets the National Wildfire Coordinating Group (NWCG) requirements.

1 Unit

9 Lecture hours

27 Lab hours

WFT 044**Introduction to ICS (I100)**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course provides first responders and other interested students an introduction to the Incident Command System (ICS-100). This course also provides a basic introduction to wildland fire management (5-110) and a basic working knowledge of the human performance concepts in dynamic and high-risk environments (L-180). This course meets the National Incident Management System (NIMS) and National Wildfire Coordinating Group (NWCG) National Standard Curriculum.

1 Unit

18 Lecture hours

WFT 045**ICS for Single Resources (I200)**

Prerequisite: WFT 044 or ICS 100 certification from FEMA, NWCG or CSFM (CA State Fire Marshal)

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course is designed to teach first responders and other interested students to operate efficiently during an incident or event within the Incident Command System (ICS). The course focuses on the implementation of ICS and single resources. Topics include ICS fundamentals review, leadership and management, delegation of authority, management by objectives, ICS functional areas and positions, briefings, organizational flexibility, and transfer of command. This course provides training and resources for personnel who are likely to assume a supervisory position within the ICS. This course meets the National Incident Management System (NIMS) National Standard Curriculum.

0.7 Units

13 Lecture hours

WFT 046**Intermediate ICS (I300)**

Prerequisite: WFT 045

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on expanding or Type 3 incidents. Topics include ICS fundamentals review, incident/event assessment and agency guidance in establishing inci-

dent objectives, Unified Command, incident resource management, planning process, demobilization, transfer of command, and close out. Students will be organized into teams for classroom exercises that replicate an incident operation. This course meets the National Incident Management Systems (NIMS) National Standard Curriculum.

1 Unit

24 Lecture hours

WFT 047**Advanced ICS (I400)**

Prerequisite: WFT 046

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment

This course provides skills and resources required for advanced application of the Incident Command System (ICS) organization and operations. This course expands on ICS-100, ICS-200, and ICS-300 courses and is intended for command and general staff positions. Topics include ICS fundamentals review, major and/or complex incident/event management, area command, and multiagency coordination. Group exercises will emphasize advanced ICS concepts. This course meets the National Incident Management Systems (NIMS) National Standard Curriculum.

1 Unit

18 Lecture hours

WFT 077**Wildland Fire Academy**

Prerequisite: READ 043 or appropriate assessment; FTEC 044; The ability to carry a 45 lb. pack three miles within a 45 minute time period; Must complete and pass a US Forest Service Medical Exam
Advisory: ENGL 035 or ENLA 100 or appropriate assessment

This course is designed for those students who desire to gain certification through the NWCG (National Wildland Coordinating Group) as a Wildland Firefighter. This course provides training in hand crew formation, fire line construction and the use of wild land equipment. Certification in S-130, S-131 and Hazardous Materials Response is included. Students will learn about wild land firefighter safety, fire behavior, protective clothing, fire pumps and wild land fire tools. This course includes arduous physical conditioning as day and night time hikes and other outdoor activity is included. This academy meets or exceeds the minimum required training for the US Forest Service and CAL Fire Agencies as a wild land firefighter for certification purposes.

16 Units

190 Lecture hours

297 Lab hours

WFT 101**Wildland Fire Behavior**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment; MATH 033 or MATH 033B or appropriate assessment
Transfers to: CSU

This course is one in a series of core courses required for the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand basic wildland fire behavior, wildland fire predictions, and wildland fire operation safety. Wildland fire environmental factors and the tools required to monitor weather and fire behavior will be discussed as it relates to wildland fire predictions. This course meets or exceeds the National Wildfire Coordinating Group (NWCG) requirements.

3 Units**54 Lecture hours****WFT 102****Wildland Fire Fighter Safety and Survival**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is one in a series of core courses required for the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand occupational safety and hazards associated with wildland firefighting operations. Emphasis will be placed on situational awareness, protective measures, accident avoidance procedures, and the risk management process. Students will also review fire ground near misses, entrapments, and fatalities. This course meets or exceeds the National Wildfire Coordinating Group (NWCG) requirements.

3 Units**54 Lecture hours****WFT 103****Wildland Fire Operations**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is one in a series of core courses required by the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand ground and air operations associated with wildland firefighting operations. Emphasis will be placed on incident command system use, strategy, tactics, hazards, resource typing, management, and

safety procedures during wildland fire incidents. This course meets or exceeds the National Wildfire Coordinating Group (NWCG) requirements.

3 Units**54 Lecture hours****WFT 104****Wildland Fire Investigation, Prevention and Public Information**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is one in a series of core courses required by the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information and skills necessary to understand the roles and functions of the Public Information Officer (PIO, S-203), Fire Prevention Education Team Member (PETM, P-101), and the Wildland Fire Investigator (INVF, FI-110). Various wildland fire associated class projects will challenge the student's public speaking, report writing, and presentation skills. This course meets or exceeds the National Wildfire Coordinating Group (NWCG) requirements.

3 Units**54 Lecture hours****WFT 105****Wildland Fire Logistics, Finance and Planning**

Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course is one in a series of core courses required by the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand the responsibilities and functions of the logistics, finance, and planning sections. Emphasis will be placed on how the different incident command system sections are organized and utilized during wildland fire incidents. This course meets or exceeds the National Wildfire Coordinating Group (NWCG) requirements.

3 Units**54 Lecture hours****WFT 290****Cooperative Work Experience/Internship for Wildland Fire Technology Related Fields**

Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU

This course supports and reinforces on-the-job training in the Wildland Fire Technology field under supervision of a college instructor and is facilitated by the use of learning

objectives. The student will be working in a skilled or professional level assignment in the area of Wildland Fire Technology and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of fire technology and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures."

Student Unpaid Internship:

1 Unit/60 hours; 2 Units/120 hours;
 3 Units/180 hours; 4 Units/240 hours

Student Paid Internship:

1 Unit/75 hours; 2 Units/150 hours;
 3 Units/225 hours; 4 Units/300 hours.

1 to 4 Units**3 Lecture hours****60 to 300 Other hours**

Non-Credit Courses

NBAS 004

General Academic Advisement

Courses designed to assist awareness of college programs and services and exercising good judgment in the selection of classes and an academic path. Topics can include basic skills assessment, campus life, academic and career choices, and other related subjects.

0 Units

18 Lecture hours

NBAS 005

Personal and Career Exploration

Courses to increase awareness of processes for personal and career growth. Intellectual, social, emotional, and physical development; personal values clarification; decision making; identification of needs and methods of satisfying; human sexuality and family life; and accepting and assuming responsibility for own behavior; and investigation into career and life planning alternatives can be explored. Included can be diagnostic testing, survey of interests, and capabilities, and development of positive self-image through group interaction.

0 Units

18 Lecture hours

NBAS 008

Personal Learning Skills/Basic Skills

This course assists the student to become more effective and efficient in developing skills and knowledge necessary to function in a work setting. Skills may include psychomotor skills, communication skills and computer software skills. Opportunities to develop critical thinking skills in simulated situations are provided. The student may use computer assisted instructional programs, word processing, equipment related to the work setting, audiovisual materials and computer software to meet program objectives. Faculty and peers will provide tutoring services and assist students in completing assignments.

0 Units

120 Lecture hours

NBAS 009

Supervised Tutoring in College Courses

This course provides students with the tools needed to excel in their courses. Trained tutors individually help students attain higher levels of

comprehension and competency by providing supplemental instruction for pre-approved subjects. Workshops enhance student learning. This course is open- entry/open-exit.

0 Units

1 to 180 Lab hours

NBAS 010

Supervised Tutoring in Mathematics

Trained tutors will individually help students who need assistance in attaining comprehension and competency in mathematical learning skills. This course is designed to supplement the instruction in mathematics courses and other courses with mathematical content. This course is open-entry/ open-exit.

0 Units

1 to 180 Lab hours

NBAS 014

Review of Integrated Math I Part A

This course is a review of the first half of Integrated Math I. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the first semester of Integrated Math I, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Number and Quantity, Algebra, and portions of Functions.

0 Units

22 to 100 Lecture hours

NBAS 015

Review of Integrated Math I Part B

This course is a review of the second half of Integrated Math I. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the second semester of Integrated Math I, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core

State Standards domains of Geometry, Statistics and Probability, and portions of Functions.

0 Units

22 to 100 Lecture hours

NBAS 016

Review of Integrated Math II Part A

This course is a review of the first half of Integrated Math II. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the first semester of Integrated Math II, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Algebra, portions of Functions, and portions of Number and Quantity.

0 Units

22 to 100 Lecture hours

NBAS 017

Review of Integrated Math II Part B

This course is a review of the second half of Integrated Math II. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the second semester of Integrated Math II, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Geometry, Statistics and Probability, portions of Number and Quantity, and portions of Functions.

0 Units

22 to 100 Lecture hours

NBAS 018

Review of Integrated Math III Part A

This course is a review of the first half of Integrated Math III. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the first semester of Integrated Math III, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small

group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Algebra, and portions of Functions.
0 Units
22 to 100 Lecture hours

NBAS 019

Review of Integrated Math III Part B

This course is a review of the second half of Integrated Math III. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the second semester of Integrated Math III, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Number and Quantity, Geometry, Statistics and Probability, and portions of Functions.
0 Units
22 to 100 Lecture hours

NBAS 020

Review of Algebra I Part A

This course is a review of the first half of Algebra I. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the first semester of Algebra I, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Number and Quantity, Algebra, and portions of Functions.
0 Units
22 to 100 Lecture hours

NBAS 021

Review of Algebra I Part B

This course is a review of the second half of Algebra I. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the second semester of Algebra I, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core

State Standards domains of Geometry, Statistics and Probability, and portions of Functions.
0 Units
22 to 100 Lecture hours

NBAS 022

Review of Geometry Part A

This course is a review of the first half of Geometry. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the first semester of Geometry, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of: portions of Congruence, portions of Similarity, Right Triangles, and Trigonometry, and portions of Modeling with Geometry.
0 Units
22 to 100 Lecture hours

NBAS 023

Review of Geometry Part B

This course is a review of the second half of Geometry. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the second semester of Geometry, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Congruence, portions of Similarity, Right Triangles, and Trigonometry, Circles, portions of Expressing Geometric Properties with Equations, Geometric Measurement and Dimension, and Statistics and Probability.
0 Units
22 to 100 Lecture hours

NBAS 024

Review of Algebra II Part A

This course is a review of the first half of Algebra II. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the first semester of Algebra II, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers

the Common Core State Standards domains of Number and Quantity, Algebra, and portions of Functions.
0 Units
22 to 100 Lecture hours

NBAS 025

Review of Algebra II Part B

This course is a review of the second half of Algebra II. It is mainly a self-paced, software-based independent study program which permits a high school student to retake the second semester of Algebra II, for the purpose of making up credit and/or improving their grade from a prior attempt at the course, but may involve individualized and/or small group instruction as needed. Students wishing to enroll in this course will need consent from a high school counselor and consent from a parent. The course covers the Common Core State Standards domains of Geometry, Statistics and Probability, and portions of Functions.
0 Units
22 to 100 Lecture hours

NCHS 001

Health and Fitness

This is an open-entry, open-exit course to develop and enhance a student's knowledge of the importance of healthy lifestyles and to further develop skills which will facilitate a personal fitness program. Student's will also participate in specific activities that develop an individual's level of physical fitness.
0 Units
1 to 54 Lab hours

NCHS 002

Beginning Jujitsu: Self Defense for Adults

This course is designed to teach the basic skills of self-defense. Students will be taught skills related to coordination, quick reflex response, how to build stamina, speed, and strength. They will learn all phases of punches, blocks, kicks, hand releases and breaks, two-step fighting, judo and jujitsu falls. Students will practice strategies of protecting themselves from attackers.
0 Units
48 Lecture hours

NCIT 002

Citizenship Preparation

This course will guide persons seeking United States Citizenship in the steps required to become a citizen. Students will prepare to take the

citizenship examination and will receive assistance in completing the appropriate forms.

0 Units

45 Lecture hours

NCOA 001

Painting for Older Adults

This course offers the older adult an individual approach to painting and creative arts. Topics can include art appreciation and art history; awareness of line, color, shape and form; techniques in drawing and progression through color mixing and canvas painting. Creativity and general art knowledge will be taught in a friendly and relaxed environment allowing each artist to work at their own pace.

0 Units

1 to 48 Lecture hours

NCOA 002

Music Workshop for the Third Age

Courses for instrumental and vocal musical experiences. Included can be rehearsals and performances in cooperation with the Rio Hondo Chapter of Sweet Adelines; other local choral and/or singing groups; and instruction in learning to play a musical instrument.

0 Units

1 Lecture hours

1 Lab hours

NCOA 007

Chorus Singing for the Older Adult

This course introduces older adult students to a variety of choral music and explores its cultural and historical aspects. Students will gain knowledge of posture, vowel modification, elements of phrasing and harmony. Students will perform vocal exercises and practice breathing techniques appropriate for the older adult.

0 - Units

1 to 48 Lecture hours

NCOA 008

Computers Unlimited for Older Adults

This course is designed for the older adult who thinks he or she will never learn to use a computer. Students will build basic skills that will prepare them to write documents, send e-mail, use online banking or simply enjoy surfing the Internet. Mastery of the basic skills will let you grow from simple accomplishments to things you never dreamed possible. Our gentle, easy approach will show you the many ways that computers can be fun and interesting.

0 Units

8 to 20 Lecture hours

8 to 20 Lab hours

NCOA 010

Hatha Yoga for Older Adults

This class uses active and passive movements which are adapted for older adults. Movements include stretching, relaxation, and breathing exercises. Students will learn repetitive skill building, weight bearing poses and become familiar with working together in rhythm.

0 Units

8 to 24 Lecture hours

NCOA 012

Physical Fitness for the Older Adult

This physical fitness class is designed for the older adult and offers instruction in movement to maintain and increase range of motion, build muscle strength, maintain coordination, flexibility and balance. Class topics include discussions on nutrition, the effects of aging, safety factors and memory skills.

0 Units

1 to 48 Lecture hours

NCOA 013

Current Topics for Older Adults

This course presents older adults with various topics for discussion and class activities based on the student's individual interests and backgrounds. Older adults will explore international, national and local events and issues from a current and historical viewpoint.

0 Units

1 to 24 Lecture hours

NCOA 014

Tai Chi Chuan for Older Adults

This course introduces older adults to a Chinese health exercise which is neither vigorous nor strenuous. It is suitable for older adults who want to exercise to gain or maintain good health. It will strengthen the muscles and organs, relax the mind and body, improve blood circulation, and increase memory and concentration.

0 Units

1 to 24 Lecture hours

NCOA 015

Creative Writing for Older Adults

This course is for older adults and teaches both beginning and experienced writers how to create and shape autobiographies, fiction, non-fiction and poetry into readable and publishable forms. Participants will put their experiences on paper and analyze quality, selection and structure of written materials through group discussion and projects.

0 Units

1 to 24 Lecture hours

NESL 001

ESL Beginning I

This course is suitable for the true beginner to the English language. This entry level course focuses on the acquisition of basic speaking, listening, reading, and writing skills to meet immediate social communication needs in an English-speaking environment. Successful completion of this course prepares students to enter NESL 015.

0 Units

30 to 60 Lecture hours

NESL 015

ESL Beginning II

Prerequisite: NESL 001 or equivalent placement (CASAS Appraisal)

This course is designed to provide an introduction to English speaking, listening, reading, and writing skills enabling the student to satisfy routine demands in social settings. Students develop the ability to comprehend and respond to basic spoken English. Students practice reading and writing at the sentence level. If taken in sequence with NESL 001, successful completion of this course earns a Certificate of Competency in Foundational English as a Second Language and prepares students for entry into NESL 016.

0 Units

30 to 60 Lecture hours

NESL 016

ESL Intermediate I

Prerequisite: NESL 015 or equivalent placement (CASAS Appraisal)

This course focuses on expanding students' listening and speaking skills in face-to-face conversations in social, academic, and work contexts. Students gain ability to read and interpret narrative passages on a variety of topics, and to write simple routine correspondence and short paragraphs. Upon successful completion of this course students are prepared to enter NESL 017.

0 Units

30 to 60 Lecture hours

NESL 017

ESL Intermediate II

Prerequisite: NESL 016 or equivalent placement (CASAS Appraisal)

This course focuses on preparing English learners to communicate independently and effectively for a variety of purposes and audiences. Students practice engaging in extended conversations, reading for comprehension of authentic texts, and writing multiple paragraphs with good command of grammar conventions. If taken in sequence with NESL 016, successful completion

of this course earns a Certificate of Competency in Intermediate English as a Second Language and prepares students for entry into NESL 018.

0 Units
30 to 60 Lecture hours

NESL 018
ESL Advanced I

Prerequisite: NESL 017 or equivalent placement (CASAS Appraisal)

This course stresses the refinement and expansion of language skills which enable students to use fluid-paced English to effectively meet social, academic, and workplace demands. Reading for comprehension focuses on factual extraction as well as interpretation using critical thinking skills. Progression of writing skills focuses on the introduction of the writing process and the construction of well-developed compositions. If taken in sequence with NESL 017, successful completion of this course earns a Certificate of Competency in Advanced English as a Second Language and prepares students for direct entry to Rio Hondo College's Credit English Program.

0 Units
30 to 60 Lecture hours

NESL 019
ESL Advanced II

Prerequisite: NESL 018 or equivalent placement

The College Preparation course is the highest Noncredit ESL level designed for students who wish to prepare for transition into various academic programs at the college level. This course reinforces and builds on students' English language skills to meet the academic expectations of college courses. Students are introduced to basic elements of an academic course: understanding the syllabus, note-taking, participating in discussion, interpreting written texts, composing essays, and making presentations. Students practice these academic skills in a supportive language-learning community. If taken in sequence with NESL 018, the successful completion of this course earns the Certificate of Competency in English for College Preparation and prepares students for direct entry to Rio Hondo College's Credit English Program.

0 Units
30 - 60 Lecture hours

NESL 034
ESL Multi-Level I

This course focuses on preparing students to use English to achieve tasks within a variety of real-life situations such as a doctor's office or a department store. Students are instructed to be able to listen, speak, read, and write in English in context-specific

environments. This is an accelerated version of NESL 035 that is designed for students with some knowledge of the English language.

0 Units
24 to 50 Lecture hours

NESL 035
ESL Multi-Level

This course focuses on preparing students to use English to achieve tasks within a variety of real-life situations such as a doctor's office or a department store. Students are instructed to be able to listen, speak, read, and write in English in context-specific environments.

0 Units
24 to 90 Lecture hours

NESL 036
Family Literacy

This course focuses on engendering reading and literacy as a fundamental component of a healthy, well-functioning family. The family-oriented assignments promote the seamless integration of reading across school and home boundaries.

0 Units
1 to 72 Lecture hours

NGBD 101
Green Building Basics & LEED

The course offers an introduction to USGBC, green building principles and the fundamentals of the LEED Rating System. It includes topics on climate change and building impacts; motivators for green building; and integrative versus conventional approaches – and the associated benefits – to building design, construction and operations. This course is intended for those who are new to green building and looking to learn the basics of green building and LEED.

0 Units
20 Lecture hours

NHAN 001
Art Workshop for the Handicapped

Courses for cultural enrichment and awareness of many different forms of art. Emphasis is on therapeutic value.

0 - Units
1 to 18 Lecture hours
1 to 18 Lab hours

NHEC 002
Soap Making as an Art and a Business

This course is designed for anyone wanting to expand their creative skills for personal satisfaction or as a

business. Students will create different kinds of soaps such as glycerin or coconut soap. The use of molds, layering of colors, and adding herbs and fragrances will be discussed.

0 Units
1 to 54 Lecture hours

NHSL 030
Nursing Skills Lab

This course complements the HS, ADN and VN lecture courses and is designed to provide an additional opportunity for students to practice skills covered in their co-requisite courses. These instructional activities are not available in the regular lecture/lab course and are not required for the grade in the co-requisite course.

0 Units
10 to 200 Lab hours

NVOC 0029
Effective Supervision
Certificate Program

This course is designed for individuals promoted into supervisory positions. The class will assist employers who have promoted line employees with little or no formal supervision training, as well as those anticipating a career that includes supervising other individuals. Topics will focus on six areas comprised of basic supervisory skills and concepts. Students are provided with an overview of what is expected of an effective supervisor and what skills are required to successfully perform in that capacity. Real-life business situations are discussed and evaluated. Students take knowledge gained back to their respective work venues and conversely bring examples to the class for discussion.

0 Units
18 Lecture hours

NVOC 005
Theatre Production Workshop

This course will introduce students to all aspects of preparing for and presenting a full theater production. Topics covered will include technical set-up of the stage, the dress rehearsal, pre-show preparation, techniques for striking the set and the special needs of a traveling show.

0 Units
18 Lecture hours
18 Lab hours

NVOC 008
Fundamentals of Law Enforcement/
Individual Study

This course is designed to provide law enforcement students or those

involved in a related public service subject to expand on their knowledge in the major points of law enforcement. Topics include history and general development of law enforcement, ethical and moral standards, California law, and other related issues. Students will receive individualized instruction tailored to their plan of study.

0 Units

1 to 500 Lab hours

NVOC 014

College Community Orchestra

This is an ongoing program designed for preparation for employment as musicians. Participants may perform with a symphony orchestra such as Rio Hondo Community College.

0 Units

1 to 8 Lecture hours

NVOC 015

Practical Experience in Fire Suppression

This course is designed to provide fire technology students or those involved in a related fire science subject to expand on their knowledge in the major points of fire service. Topics include the traditions of the fire service, general development of a firefighter, ethical and moral standards, and other related issues pertaining to the fire service. Students will receive individualized instruction tailored to their personal plan of study.

0 Units

1 to 500 Lab hours

NVOC 018

ACEDD-GIS Skills Development

This course complements the CIV, ARCH, ENGT, LAND and GIS lab and lecture courses and is designed to provide an additional opportunity for students to practice concepts covered in the corequisite courses and enhance their board drafting and CADD skills for work place productivity. These instructional activities are not available in the regular lecture/lab course and are not required for the grade in the corequisite course.

0 Units

1 to 200 Lab hours

NVOC 030

Personal Care Aide

This course is designed to prepare students to assist elderly, disabled, and ill individuals living at home. This course will help students enhance their communication skills and knowledge of health environment and procedures for emergencies. Students will also learn to recognize physical, emotional, and developmental characteristics of indi-

viduals served; personal hygiene, safe transfer techniques, basic nutrition, and other personal care needs.

0 Units

70 Lecture hours

30 Lab hours

NVOC 031

First Aid and CPR

This course teaches skills with the AHA's research-proven practice-while-watching technique. The course is designed to teach students critical skills needed to respond to and manage an emergency until emergency medical services arrives. Skills covered in this course include first aid; choking relief in adults, children, and infants; and what to do for sudden cardiac arrest in adults, children, and infants. This course is for anyone with limited or no medical training who needs a course completion card in CPR and AED use to meet job, regulatory, or other requirements.

0 Units

8 Lecture hours

NVOC 032

American Heart Association CPR BLS

This course is taught by AHA Instructors and meets the requirements for most nursing programs and clinical facilities. This course teaches both single-rescuer and team basic life support skills for application in both pre hospital and in-facility environments, with a focus on High-Quality CPR and team dynamics. Basic Life Support training reinforces healthcare professionals' understanding of the importance of early CPR and defibrillation, basic steps of performing CPR, relieving choking, and using an AED; and the role of each link in the Chain of Survival.

0 Units

4 Lecture hours

0 Lab hours

NVOC 038

Real Estate Practices

This class is an introduction to the professional aspects of the real estate industry. The focus of the course is on the agency responsibilities of the salesperson including office management, listing and prospecting property, selling and marketing techniques, advertising, securing loans, and closing procedures. Students will also acquire general knowledge of other pertinent fields as they relate to real estate, such as finance, appraisal, escrow, and investing. This course is approved by the California Bureau of Real Estate (CalBRE) to fulfill education requirements for the California Real Estate Salesperson License and may be applied towards the California Real Estate Broker License requirements. Taken in sequence with

NVOC 039, students earn the Certificate of Completion in Real Estate Practice and Finance approved by the California Community Colleges Chancellor's Office.

0 Units

48 Lecture hours

NVOC 039

Real Estate Finance

This course is designed to help the pre- and new licensee, the experienced real estate agent, the investor, and the lender gain a better understanding of the complex world of real estate finance. It covers all aspects of real estate financing from completing loan applications, navigating the escrow process, to closing loans. The course details current lending policies, qualifying standards, and disclosure requirements. This course is approved by the California Bureau of Real Estate (CalBRE) to meet the elective education requirements for the California Real Estate Salesperson License and the California Real Estate Broker License. Taken in sequence with NVOC 038, students earn the Certificate of Completion in Real Estate Practice and Finance approved by the California Community Colleges Chancellor's Office.

0 Units

48 Lecture hours

NVOC 040

Real Estate Principles

This is a foundational real estate course that covers the basic laws and principles of land and property transactions. Course topics include overview of property laws, land descriptions, titles, acquisition and transfer, liens and encumbrances, taxation, contract law, landlord and tenant laws, and real estate mathematics and finance. Students will become familiar with terminology and forms commonly used in everyday real estate transactions. This course is approved by the California Bureau of Real Estate (CalBRE) to fulfill education requirements for the California Real Estate Salesperson License. Taken in sequence with NVOC 041, students earn the Certificate of Completion in Real Estate Principles and Appraisal approved by the California Community Colleges Chancellor's Office.

0 Units

48 Lecture hours

NVOC 041

Real Estate Appraisal

This course provides a comprehensive overview of real estate appraisal principles and procedures. Topics include land values and their characteristics, the process of appraising, capitalization theory, site analysis, and construction methods. Students

gain guided practice in accrued depreciation analysis, income and expense analysis, and techniques in the income approach method of appraising. This course is approved by the California Bureau of Real Estate (CalBRE) to meet the elective education requirements for the California Real Estate Salesperson License and the California Real Estate Broker License. Taken in sequence with NVOC 040, students earn the Certificate of Completion in Real Estate Principles and Appraisal approved by the California Community Colleges Chancellor's Office.

0 Units

48 Lecture hours

NVOC 043

Conversational Spanish

This introductory class is designed for beginning Spanish speakers who are looking to learn Spanish for use in a workplace setting. This class will be of particular interest to supervisors and managers that oversee a workforce of predominantly Spanish speaking individuals. The focus is on learning how to speak rather than on grammar. The class will cover simple tenses – present, past, imperfect and future. Students will be asked to listen to Spanish radio, watch Spanish television, read Spanish newsprint and participate in Spanish conversations.

0 Units

14 Lecture hours

NVOC 050

Nurse Assistant Pre-Certification

Corequisite: NVOC 050L

This course is designed for students who have expressed an interest in an entry-level nursing course. This course meets Title 22 regulations for taking care of the geriatric population in a long-term care setting, utilizing skills in basic care, emergency care and communication. The Nurse Assistant Pre-Certification course consists of 72 hours of classroom instruction. This course prepares the student to take the California State Certification Exam to become a Certified Nurse Assistant (CNA). After obtaining the state certification, the student may find employment in the acute care and/or long-term care settings. The California Department of Public Health requires that students must be concurrently enrolled in both NVOC 050 and NVOC 050L, and pass both courses together. They cannot be taken individually.

0 Units

72 Lecture hours

NVOC 050L

Nurse Assistant Pre-Certification Lab

Corequisite: NVOC 050

This course is designed for students

who have expressed an interest in an entry-level nursing course. This course meets Title 22 regulations for taking care of the geriatric population in a long-term care setting, utilizing skills in basic care, emergency care and communication. The Nurse Assistant Pre-Certification training course lab consists of 135 hours of supervised clinical practice in long-term facilities. This course prepares the student to take the California State Certification Exam to become a Certified Nurse Assistant (CNA). After obtaining the state certification, the student may find employment in the acute care and/or long-term care settings. The California Department of Public Health requires that students must be concurrently enrolled in both NVOC 050 and NVOC 050L, and pass both courses together. They cannot be taken individually.

0 Units

0 Lecture hours

135 Lab hours

NVOC 051

CNA Acute Care Training Course

Prerequisite: Nurse Assistant Pre-Certification Training Course/California State Certification

This course is designed for students who are Certified Nurse Assistants and wish to learn the basic nursing skills and duties in the acute care setting with additional emphasis on the specialized acute care areas such as medical/surgical, orthopedics, pediatrics and obstetrics. The Certified Nurse Assistant Acute Care course consists of 27 hours of classroom instruction. This course includes communication, patient observation, reporting and recording training, as well as reinforcement of Certified Nurse Assistant basic care procedures. The Health Science and Nursing Division require that students must be concurrently enrolled in both NVOC 051 and NVOC 051L, and pass both courses together. They cannot be taken individually.

0 Units

27 Lecture hours

NVOC 051L

CNA Acute Care Training Course Lab

Prerequisite: Nurse Assistant Pre-Certification Training Course/California State Certification

This course is designed for students who are Certified Nurse Assistants and wish to learn the basic nursing skills and duties in the acute care setting with additional emphasis on the specialized acute care areas such as medical/surgical, orthopedics, pediatrics and obstetrics. The Certified Nurse Assistant Acute Care course lab consists of 54 hours of supervised clinical practice in an acute care facility. This course includes communica-

tion, patient observation, reporting and recording training, as well as reinforcement of Certified Nurse Assistant basic care procedures.

0 Units

0 Lecture hours

54 Lab hours

NVOC 052

Home Health Aide Training Course

Prerequisite: Nurse Assistant Pre-Certification Training Course/California State Certification

This course is designed for students who are Certified Nurse Assistants who wish to learn how to provide personal care in the home care setting for those who are unable to do it for themselves and/or promote the recovery, safety and comfort of the patient. Additional emphasis on rehabilitative nursing care, family relationships and the impact of long-term illness on the family as well as the client will be included. The Home Health Aide training course consists of 27 hours of classroom instruction. This course meets Title 22 regulations for Home Health Aides training programs. The California Department of Public Health requires that students must be concurrently enrolled in both NVOC 052 and NVOC 052L, and pass both courses together. They cannot be taken individually.

0 Units

27 Lecture hours

0 Lab hours

NVOC 052L

Home Health Aide Training Course-Lab

Prerequisite: Nurse Assistant Pre-Certification Training Course/California State Certification

This course is designed for students who are Certified Nurse Assistants that wish to learn how to provide personal care in the home care setting for those who are unable to do it for themselves and/or promote the recovery, safety and comfort of the patient. Additional emphasis on rehabilitative nursing care, family relationships and the impact of long-term illness on the family as well as the client will be included. The Home Health Aide training course lab consists of 54 hours of supervised clinical practice in either the Acute Care or Skilled Nursing facility. This course meets the Title 22 regulations for Home Health Aides training programs. The California Department of Public Health requires that students must be concurrently enrolled in both NVOC 052 and NVOC 052L, and pass both courses together. They cannot be taken individually.

0 Units

0 Lecture hours

54 Lab hours

NVOC 059**Introduction to Welding Processes**

This is an introductory class designed to familiarize the student with several welding processes that are currently used in the welding and metal fabrication industry. This course offers an overview and basic introduction to the theory and practice of a variety of welding and metal cutting methods. This course will emphasize safety, theory, procedure, and practical skill development.

0 Units**1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 060****Semi-Automatic Welding Processes**

This is an intermediate level course designed to introduce students to wire-fed, semi-automatic welding processes for mass-production welding applications, i.e. Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Submerged Arc Welding (SAW). This course emphasizes safety, theory, characteristics and settings for power supplies and wire feeding units, electric current settings, electrode identification and selection, welding positions, and welding of ferrous and non-ferrous metals. Special emphasis will be placed on developing proficiency and speed for high volume production applications.

0 Units**1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 061****Production Welding Techniques**

This is an intermediate level course designed to introduce the student to welding techniques used in high volume production manufacturing applications. This class will focus on GMAW and GTAW for mild steel, stainless steel aluminum, and will include pulsed-arc applications for both processes. In addition, the student will be introduced to welding fixtures, welding positioners and other auxiliary welding equipment. Emphasis will be placed on shop safety and on developing proper working procedures.

0 Units**1 to 36 Lecture hours****1 to 108 Lab hours****NVOC 062****Introduction to Fabrication Processes**

This is a beginning level course designed to introduce students to various techniques, processes and technologies used in the Fabrication industry. This course will develop skills necessary for translating dimensional information from a shop drawing or blueprint to metallic materials used for production of

finished parts and assemblies. Topics covered in this class will include basic blueprint reading, measurement and measuring tools, layout, metal cutting, drilling and tapping, and metal forming. Emphasis will be placed on shop safety and safe and proper use of equipment, tools and materials.

0 Units**1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 063****Intermediate Fabrication Processes**

This course is designed to broaden the students' skills and knowledge of metal fabrication techniques. This course will introduce students to basic hand tools and power tools commonly used in the metal fabrication industry. Topics covered in this class will include structural fabrication, tube bending, stair layout and construction, and fabrication of components from sheet metal. Emphasis will be placed on shop safety and on developing proper working procedures.

0 Units**1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 100****Basic Computer Skills Workshop for Healthcare Professionals**

This course offers basic skills needed to perform tasks on computers and online. As the mandate for electronic medical records is implemented, incumbent medical workers will need to learn these basic computer skills to maintain their employment. Topics include computer hardware, operating systems, cloud computing, office software applications, security and ethical use of electronic data.

0 Units**8 Lecture hours****8 Lab hours****NVOC 138****Engineering Careers & Applications**

This course is for all students interested in the career field of Engineering Design Drafting. Engineering Careers and Applications will explore the career opportunities and training requirements in the field of engineering and engineering technology. Topics will include the history of engineering, careers in engineering, ethics and responsibilities of the engineer, communicating and problem solving.

0 Units**27 Lecture hours****36 Lab hours****NVOC 140****Civil Drafting Fundamentals**

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineer-

ing. The course is study of civil design drafting practices and the preparation of drawings used in the civil engineering field. Students will use Computer Aided Drafting (CADD) software to complete projects relating to interpretation of survey data, profiles and cross sections, land subdivision, site and grading plans, underground utilities and structures, concrete and structural detailing.

0 Units**36 Lecture hours****72 Lab hours****NVOC 150****AutoCAD for Basic CADD Applications**

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of AutoCAD software will be provided. Students will produce 2D orthographic, isometric, and basic 3D models solutions of mechanical and architectural applications.

0 Units**54 Lecture hours****54 Lab hours****NVOC 170****MicroStation for Basic CADD Applications**

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of MicroStation software will be provided. Students will produce 2D orthographic, isometric, and basic 3D models solutions of mechanical and architectural applications.

0 Units**54 Lecture hours****54 Lab hours****NVOC 200****Intermediate AutoCAD for Design and Production**

This course is for students pursuing degrees or certificates in the Architecture and Engineering Design Drafting Program and for those who wish to enhance their AutoCAD skills for workplace productivity. The course is an intermediate application study in computer aided design, drafting, and graphics using the latest rev-

sions of AutoCAD. Combined with previously learned technical drafting conventions and basic AutoCAD operational skills, students will use AutoCAD to produce detailed drawings that involve model-space and paper-space, 2D and 3D objects, block attributes and viewport scales. Emphasis will be placed on working with multiple drawing files using external files to create mechanical, architectural and civil projects.

0 Units

45 Lecture hours

54 Lab hours

NVOC 241

Civil Engineering Drafting & Design

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. Civil Drafting and Design is an intermediate level class in which the practices and the preparation of drawings, pertaining to the civil engineering field, will be expanded to include the development of maps and drawings used for transportation, site development, grading and drainage and road alignment. The student will use Computer Aided Drafting (CADD) to complete the above mentioned projects. Other topics to be covered will include specifications, site details for utilities and underground piping, structural plans and integration of Geographic Information Systems (GIS).

0 Units

36 Lecture hours

72 Lab hours

NVOC 245

Civil Engineering Design & Modeling

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. Civil Design & Modeling is an advanced level class which includes design analysis and the preparation of drawings used in the civil engineering field. The student will use civil engineering software, such as InRoads and Land Desktop to design, analyze and develop projects relating to transportation, site development, grading, drainage and road alignment and alternatives. Other topics to be covered are terrain modeling, surface editing, alignment editing, plan, profile, cross-sections, earthwork computations and site planning design.

0 Units

36 Lecture hours

72 Lab hours

NVOC 250

Parametric Modeling 3D Applications for Mechanical Design

This course presents advanced applications of 2D and 3D Computer Aided Design Drafting (CADD) and

an introduction to parametric modeling and rapid prototyping utilizing the latest releases of Autodesk Inventor series, SolidWorks, and other parametric modeling software to produce solutions for mechanical applications. Topics covered will benefit all students in areas of study related to Engineering, Drafting, Design and Computer Graphics. Course emphasis is given to CADD generated three dimensional graphics using wire frame, surface modeling, and parametric solids. This course may be taken once for credit towards the major and repeated 2 times to enhance student skills and proficiency levels.

0 Units

54 Lecture hours

54 Lab hours

NVOC 260

Advanced Architecture Using Revit and 3D Software

This course is for students pursuing an advanced study of BIM (Building Information Modeling) applications as they relate to architecture and the AEC industry (Architecture, Engineering, Construction). Utilizing the latest releases of 3D design software such as Revit and AutoCAD Architecture and previously learned technical and architectural drafting conventions, students will produce two and three dimensional BIM generated architectural drawings and 3D virtual models. This course benefits all students studying Architecture, Civil, Engineering of all types, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

0 Units

54 Lecture hours

54 Lab hours

NVOC 261

Revit for Advanced BIM Architectural, Structural and MEP Applications

Advanced BIM (Building Information Modeling) applications extends the fundamentals of the Arch 260 class to include Structural, Mechanical, Electrical and Plumbing extensions of the Autodesk Revit Building software. Students will work on both group and individual projects to create and present three-dimensional representation of architectural solutions. Students will also learn the basic process and workflow in creation of Revit Families for use in building models.

0 Units

54 Lecture hours

54 Lab hours

NVOC 265

Pressure Piping Design

This course is for those students with CAD experience who are interested

in the career field of pressure piping design engineering. This course presents the preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is information and work dealing with the location, installation, operation, and maintenance of pumps, steam turbines, compressors, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

0 Units

36 Lecture hours

72 Lab hours

NVOC 266

Pressure Piping Applications

This course is for all students with a basic piping design understanding interested in the career field of pressure piping design engineering. This course presents the advanced preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is advanced information and layout work dealing with the location, installation, operation of pumps, steam turbines, compressors, vertical vessels, horizontal vessels, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

0 Units

36 Lecture hours

72 Lab hours

NVOC 270

SolidWorks for 3D Modeling and Prototype Applications

This course presents an intensive study in 3D computer graphics and CADD (Computer Assisted Design and Drafting) utilizing the latest release of SolidWorks Software. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics. Students will produce three dimensional parametric computer generated virtual models incorporating mechanical design refinements. The course emphasizes high technology skills which are necessary to function as a design professional to apply 3D design graphics technology to specific disciplines of mechanical engineering, machine drafting and design, manufacturing, animation, modeling and illustration. Students will be introduced to a variety of means to directly produce prototype models from CADD generated solid geometry.

0 Units

54 Lecture hours

54 Lab hours

NVOC 280**Advanced MicroStation for CADD & BIM Applications**

This course is for students pursuing an advanced study in MicroStation 3D parametric CADD (Computer Assisted Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture. Students will apply previously learned drafting conventions to produce two and three dimensional CADD and BIM generated mechanical and architectural drawings and virtual design models. This course benefits all students studying Architecture, Civil, Engineering of all types, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

0 Units**54 Lecture hours****54 Lab hours****NVOC 285****Graphic Design Skills Development**

This course complements the GDSN lab and lecture courses and is designed to provide an additional opportunity for students to practice concepts covered in the lab and lecture courses and enhance their Graphic Design work in preparation of their portfolios. These instructional activities are not available in the regular lecture/lab courses and are not required for the grade in the courses. It is recommended for students who have previously or are currently enrolled in any Rio Hondo College Graphic Design course with a prefix of ART or GDSN.

0 Units**1 to 400 Lab hours****NVOC 291****Career Exploration: Graphic Design I: History**

Advisory: READ 022 or appropriate assessment

This course is intended for students interested in the exploration of a career in Graphic Design. This course is the first in a series of 4 courses and is an abbreviated survey of the origins of the Graphic Design profession from the time of Gutenberg through the Industrial Revolution into the modern Digital Era.

0 Units**12 Lecture hours****NVOC 292****Career Exploration: Graphic Design II: Process**

Advisory: READ 022 or appropriate assessment

This course is intended for students interested in the exploration of a career in Graphic Design. This course is the second in a series of 4 courses

and is an overview of the practices and tasks involved in the process of developing a graphic design solution.

0 Units**12 Lecture hours****NVOC 293****Career Exploration: Graphic Design III: Academic Pathways**

Advisory: READ 022 or appropriate assessment

This course is intended for students interested in the exploration of a career in Graphic Design. This course is the third in a series of 4 courses and is an overview of the academic pathways available to students interested in the Graphic Design profession.

0 Units**12 Lecture hours****NVOC 294****Career Exploration: Graphic Design IV: Career Paths**

Advisory: READ 022 or appropriate assessment

This course is intended for students interested in the exploration of a career in Graphic Design. This course is the fourth in a series of 4 courses and is an overview of the general career pathways available to students interested in the Graphic Design profession.

0 Units**12 Lecture hours****NVOC 300****Refinery and Petroleum Safety Overview**

Prerequisite: State Indentured Carpenter Union Apprentice

This course will provide recognized credentials for workers in the refinery and petroleum industry. The training will emphasize Cal-OSHA safety measures including toxicology, hazard communication, and confined space work. Human performance methodologies will be applied to trade related hazards specific to this industry. An in depth discussion and overview of the petroleum and refining process will be conducted.

0 Units**20 Lecture hours****NVOC 1011****Orientation/Safety**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the general trade safety within the carpentry industry. Course topics will include: introduction to the carpenter's apprentice program, hand tool safety, power tool safety, math, beginning blueprint reading and layouts, trade history and job-site safety.

0 Units**20 Lecture hours****20 Lab hours****NVOC 1012****Health/Safety**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the general trade safety field within the carpentry industry. Course topics will include: Health and Safety Certifications, job safety, fall protection, powder actuated tools, confined space entry, scaffold training, rigging training, aerial lift training, and OSHA training. Certification can be earned in forklift, scaffold, American Red Cross/CPR and Ramset/ Redhead low velocity powder actuated tools.

0 Units**112 Lecture hours****112 Lab hours**