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.

Counselors can always help students interpret or explain this information.

If a Río Hondo College 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 chart that follows. 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 Río Hondo College at 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
ADS 110X	PSY 121	Drugs, Society, and Behavior
ADS 120X	HUSR 130	Essential Counseling Skills
ADS 130X	HUSR 122	Introduction to Group Leadership and Process
ADS 140X	PSY 127	Introduction to the Psychological Effects of Drugs of Abuse
ADS 150X	HUSR 118	Chemical Dependency: Intervention, Treatment, and Recovery
ADS 170X	HUSR 124	Introduction to Case Management and Documentation
ADS 180X	HUSR 126	Counseling the Family of the Addicted Person
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

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
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
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

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
ARTS 250	GDSN 178	Digital Imaging Design
ARTS 270	ART 124	Color Theory
BIOL 110B	BIOL 125	Human Anatomy
BIOL 120B	BIOL 226	Human Physiology
BIOL 135S	BIOL 200, BIOL 201	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)
BUS 110	MGMT 101	Introduction to Business
BUS 115	MGMT 208	Business Communications
BUS 120	BUSL 110	Legal Environment of Business
BUS 125	BUSL 220	Business Law
BUS 140	CIT 101	Introduction to Computer Information Technology
CDEV 100	CD 106	Child Growth and Development
CDEV 110	CD 208	Child, Family and Community
CHEM 110	CHEM 130	General Chemistry I
CHEM 120S	CHEM 130, CHEM 140	General Chemistry I General Chemistry II
CHEM 150	CHEM230	Organic Chemistry I
CHEM 160S	CHEM 230, CHEM 231	Organic Chemistry I Organic Chemistry II
CMUS 100X	Must 101	Introduction to Music Technology
CMUS 110X	MUS 165	Electronic Music I
CMUS 110X	MUST 121	Electronic Music I
CMUS 120X	MUST 145	Live Sound Reinforcement I
CMUS 130X	MUST 141	Recording Studio I
CMUS 150X	MUST 115	Songwriting and Arranging I
COMM 110	SPCH 101	Public Speaking
COMM 110	SPCH 101H	Public Speaking Honors
COMM 120	SPCH 140	Argumentation and Debate

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
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
COMP 122	CIT 127	Python Programming I
COMP 132	CIT 128	Python Programming II
COMP 142	CS 142	Computer Architecture and Organization
COMP 152	CS 152	Discrete Structures
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
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 102	Approaches to Literature
ENGL 120	LIT 102H	Approaches to Literature Honors
ENGL 130	LIT 112A	American Literature through 1865

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
ENGL 130	LIT 112AH	American Literature through 1865 Honors
ENGL 135	LIT 112B	American Literature after 1865
ENGL 135	LIT 112BH	American Literature after 1865 Honors
ENGL 140	LIT 144A	World Literature: Antiquity through the 16th Century
ENGL 145	LIT 144B	World Literature: 16th Century to Present
ENGL 160	LIT 146A	British Literature through 1785
ENGL 160	LIT 146AH	British Literature through 1785 Honors
ENGL 165	LIT 146B	British Literature after 1785
ENGL 165	LIT 146BH	British Literature after 1785 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
ENGR 220	ENGR 212	Computational Methods in MATLAB/Octave
ENGR 230	ENGR 245	Engineering Mechanics: Dynamics
ENGR 260	ENGR 217	Electric Circuit Analysis
ENGR 260L	ENGR 217L	Electric Circuit Analysis Lab
FTVE 105	ART 115	The Art of Film
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
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

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
HIST 140	HIST 144	History of the United States Since 1865
HIST 140	HIST 144H	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
HOSP 100	HOSP 101	Introduction to the Hospitality Industry
HOSP 110	HOSP 103	Sanitation and Safety
HOSP 130	HOSP 104	Introduction to Food and Beverage Management
HOSP 140	HOSP 102	Introduction to Hotel Operations
HOSP 150	HOSP 201	Hospitality Law
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
MATH 150	MATH 160	College Algebra
MATH 155	MATH 180	Pre-Calculus
MATH 210	MATH 190	Calculus I

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
MATH 210	MATH 190H	Calculus I Honors
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 120	MUS 103	Music Theory I
MUS 125	MUS 106	Musicianship I
MUS 130	MUS 104	Music Theory II
MUS 135	MUS 107	Musicianship II
MUS 140	MUS 105	Music Theory III
MUS 145	MUS 156	Musicianship III
MUS 150	MUS 206	Music Theory IV
MUS 155	MUS 157	Musicianship IV
MUS 160	MUS 181	Applied Music
MUS 170	MUS 145	Piano I
MUS 171	MUS 146	Piano II
MUS 172	MUS 147	Piano III
MUS 180	MUS 120	Concert Choir I
MUS 180	MUS 234	Advanced Chamber Singers
MUS 185	MUS 216	Industrial Orchestra
NUTR 110	NUTR 110	Introduction to Nutrition Science

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
NUTR 120	NUTR 120	Principles of Foods with Lab
PHIL 100	PHIL 101	Introduction to Philosophy
PHIL 100	PHIL 101H	Introduction to Philosophy Honors
PHIL 110	PHIL 112	Introduction to Logic
PHIL 110	PHIL 112H	Introduction to Logic Honors
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 and General Physics II
PHYS 105	PHY 150	General Physics I
PHYS 110	PHY 160	General Physics II
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 101	Introductory Psychology
PSY 110	PSY 101H	Introductory Psychology Honors

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
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
SOCI 160	SOC 127	Introduction to Criminology
SPAN 100	SPAN 101	Spanish I
SPAN 100	SPAN 101S	Spanish for Spanish Speakers I
SPAN 110	SPAN 102	Spanish II
SPAN 110	SPAN 102S	Spanish for Spanish Speakers 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	Stagecraft I for Theatre, TV, and Film

COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) — continued

CID Descriptor	RHC Course(s)	Course Title
THTR 173	THTR 153	Lighting Design and Production for Theatre, TV, and Film
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. You can also see C-ID approvals for Río Hondo College at ASSIST.org or C-ID.net.

COURSE SCHEDULE FREQUENCY

This chart lists active courses that are regularly taught. For active courses not on this list, please contact the appropriate division office to inquire about specific course scheduling.

Subject	Course	Fall	Spring	Summer
ACCT	100	X	X	X
ACCT	101	X	X	X
ACCT	101H	X	X	X
ACCT	102	X	X	X
ACCT	103	X	X	
ACCT	104		X	
ACCT	105	X		
ACCT	106	X	X	
ACCT	107		X	X
ACCT	108	X		
ACCT	109		X	
ACCT	110		X	
ACCT	203		X	
ACCT	290	X	X	
ADN	075		X	
ADN	150	X		
ADN	150L	X		
ADN	151		X	X
ADN	151L		X	X
ADN	154	X		
ADN	155		X	
ADN	155L		X	
ADN	156		X	
ADN	156L		X	
ADN	250	X		
ADN	251	X		
ADN	251L	X		
ADN	252	X		
ADN	252L	X		
ADN	253		X	
ADN	253L		X	
ADN	254		X	
ADN	254L		X	
AET/ET	120		X	
AET/ET	121		X	
AET/ET	122	X		
AET/ET	123	X		
AET/ET	124		X	
AET/ET	125	X		
AET/ET	126		X	
AET/ET	181	X		
AET/ET	182		X	

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
AET/ET	183	X		
AET/ET	280	X		
AET/ET	299	X	X	
AJ	041	X	X	
AJ	101	X	X	X
AJ	102	X	X	X
AJ	104	X	X	X
AJ	105	X	X	X
AJ	106	X	X	X
AJ	107	X	X	X
AJ	207	X	X	
AJ	208	X	X	
AJ	275	X	X	X
ANIM	101	X	X	X
ANIM	105	X	X	
ANIM	110	X	X	
ANIM	120	X	X	
ANIM	130	X	X	
ANIM	133	X	X	
ANIM	134	X	X	
ANIM	135	X	X	
ANTH	101	X	X	X
ANTH	101H	X		
ANTH	101L	X	X	X
ANTH	102	X	X	X
ANTH	102H		X	X
ANTH	103	X	X	X
ANTH	104		X	
ANTH	110	X	X	X
ANTH	115	X	X	X
ANTH	125	X	X	X
ARCH	110		X	
ARCH	115	X	X	
ARCH	125		X	
ARCH	215	X		
ARCH	225	X		
ARCH	235		X	
ARCH	236		X	
ARCH	260	X	X	
ARCH	261	X	X	
ARCH	280		X	
ART	101	X	X	
ART	105	X	X	
ART	106	X	X	
ART	108	X	X	X

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
ART	110	X	X	
ART	115	X	X	
ART	120	X	X	X
ART	121	X	X	
ART	124		X	
ART	130	X	X	
ART	131	X	X	
ART	135	X	X	X
ART	136	X	X	X
ART	140	X	X	X
ART	141	X	X	X
ART	142	X	X	
ART	143		X	
ART	144		X	
ART	145		X	
ART	170	X	X	
ART	230	X	X	
ART	231	X	X	
ART	232	X	X	
ART	233	X	X	
ART	234	X	X	
ART	235	X	X	
ART	236	X	X	
ART	242	X	X	
ASL	101	X	X	X
ASL	102	X	X	X
ASL	120		X	
ASL	124		X	
ASL	201	X		
ASL	202		X	
ASL	270		X	
ASL	280		X	
ASTR	110	X	X	X
ASTR	110H	X	X	X
ASTR	112	X	X	X
AUTO	065		X	
AUTO	101	X	X	X
AUTO	102			X
AUTO	103	X	X	X
AUTO	106	X	X	X
AUTO	107	X	X	
AUTO	130	X		
AUTO	135		X	
AUTO	140		X	
AUTO	141	X		

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
AUTO	142		X	
AUTO	147	X		
AUTO	150	X		
AUTO	157	X	X	
AUTO	200	X		
AUTO	210		X	
AUTO	220		X	
AUTO	230	X		
AUTO	260		X	
AUTO	265	X		
AUTO	290	X	X	
AUTO	299	X	X	
AUTO	300		X	
AUTO	310		X	
AUTO	320	X		
AUTO	340		X	
AUTO	350		X	
AUTO	360		X	
AUTO	370		X	
AUTO	390	X	X	
AUTO	400	X		
AUTO	410	X		
AUTO	420	X		
AUTO	430	X		
AUTO	440	X		
AUTO	450	X		
AUTO	499	X	X	
BIOL	101	X	X	X
BIOL	105	X	X	X
BIOL	105L	X	X	X
BIOL	111	X	X	
BIOL	111L	X	X	
BIOL	120	X	X	X
BIOL	120L	X	X	X
BIOL	125	X	X	X
BIOL	200	X	X	
BIOL	201	X	X	
BIOL	206		X	
BIOL	222	X	X	
BIOL	226	X	X	X
BUSL	110	X	X	X
CD	102	X	X	X
CD	103		X	X
CD	106	X	X	X
CD	110	X	X	X

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
CD	111	X	X	X
CD	114	X	X	
CD	115		X	
CD	118	X		
CD	119	X		
CD	120		X	
CD	208	X	X	X
CD	211	X		
CD	213		X	
CD	224	X	X	
CD	226	X	X	X
CD	228	X	X	
CD	229	X		
CD	232		X	
CHEM	110	X	X	X
CHEM	120	X	X	X
CHEM	130	X	X	
CHEM	140	X	X	
CHEM	230	X		
CHEM	231		X	
CHIN	101	X	X	
CHST	101	X	X	
CHST	146	X	X	
CHST	148	X	X	
CHST	150	X	X	
CIT	101	X	X	X
CIT	111	X	X	X
CIT	117		X	
CIT	119	X		
CIT	125	X	X	X
CIT	126	X	X	
CIT	127	X	X	
CIT	130	X		
CIT	131		X	
CIT	133		X	
CIT	135	X	X	X
CIT	136	X	X	
CIT	139		X	
CIT	140		X	
CIT	160	X		
CIT	170		X	
CIT	171		X	
CIT	172		X	
CIT	180	X	X	X
CIT	192			X

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
CIT	200	X		
CIT	210	X	X	
CIT	221	X		
CIV	140	X	X	
CIV	142	X	X	
CIV	143	X	X	
CORR	101	X	X	X
CORR	104	X	X	X
COUN	100			X
COUN	101, A,B		X	X
COUN	102		X	
COUN	103	X	X	
COUN	104	X	X	
COUN	105		X	
COUN	151	X	X	X
CS	142	X		
CS	152		X	
DANC	114	X	X	
DANC	151		X	
DANC	153	X	X	
DANC	154		X	
DANC	157	X	X	
DANC	159		X	
DANC	179	X	X	
DANC	180	X	X	
DANC	199	X	X	
DANC	199H		X	
DANC	251		X	
DANC	253	X	X	
DANC	254		X	
ECON	101	X	X	
ECON	101H	X		
ECON	102	X	X	
ECON	102H		X	
ECON	135	X		
ED	110	X	X	
EDEV	021	X	X	
EDEV	021L	X	X	
EDEV	030	X	X	
EDEV	030W	X	X	
EDEV	033A,B	X	X	
EDEV	134	X	X	
EDEV	151	X	X	
ELEC	050	X		
ELEC	100	X	X	

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
ELEC	101	X		
ELEC	102		X	
ELEC	108		X	
ELEC	109	X		
ELEC	299	X	X	
EMT	093	X	X	X
EMT	290	X	X	X
ENGL	010S	X	X	X
ENGL	010SP	X	X	X
ENGL	020			X
ENGL	035	X	X	X
ENGL	035W	X	X	X
ENGL	101	X	X	X
ENGL	104	X	X	
ENGL	125	X	X	
ENGL	131	X	X	X
ENGL	201	X	X	X
ENGL	201H	X	X	X
ENGL	325		X	
ENGT	101	X	X	
ENGT	105	X	X	
ENGT	122	X	X	
ENGT	131	X		
ENGT	138	X		
ENGT	150	X	X	X
ENGT	170	X	X	
ENGT	200		X	
ENGT	231		X	
ENGT	250		X	
ENGT	270	X		
ENGT	280		X	
ENLA	034	X	X	
ENLA	100	X	X	
ET/AET	120	X		
ET/AET	121	X		
ET/AET	122		X	
ET/AET	123	X		
ET/AET	124		X	
ET/AET	181	X		
ET/AET	182		X	
ET/AET	280		X	
ET	290	X	X	X
FIN	101	X	X	X
FR	101	X	X	X
FR	102	X	X	

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
FTEC	044	X	X	X
FTEC	045	X		
FTEC	101	X	X	X
FTEC	102	X	X	X
FTEC	103	X	X	X
FTEC	104	X	X	X
FTEC	105	X	X	X
FTEC	106	X	X	X
FTEC	107	X	X	
FTEC	108		X	
FTEC	121	X	X	X
FTEC	150		X	X
FTEC	290	X	X	X
GDSN	150	X	X	
GDSN	151	X	X	
GDSN	162	X	X	
GDSN	163	X	X	
GDSN	164	X	X	X
GDSN	165	X	X	
GDSN	172	X	X	
GDSN	174	X	X	
GDSN	178	X	X	X
GDSN	179	X	X	
GEOG	101	X	X	X
GEOG	101L	X	X	X
GEOG	102	X	X	X
GEOL	150	X	X	X
GEOL	151	X	X	X
GIS	120	X	X	X
GIS	130			X
GIS	150		X	
GIS	220	X	X	
GIS	221	X	X	
GIS	230	X		
GIS	280		X	
GIS	281	X	X	
GIS	290	X	X	
GIS	299	X	X	
HET	051		X	
HET	052			X
HET	053	X		
HET	101	X	X	
HET	106	X	X	
HET	107	X	X	
HET	121	X		

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
HET	122	X		
HET	123		X	
HET	124		X	
HET	125			X
HET	290	X	X	X
HIST	101	X	X	X
HIST	102	X	X	X
HIST	122		X	
HIST	131		X	
HIST	143	X	X	X
HIST	143H	X		
HIST	144	X	X	X
HIST	144H		X	
HIST	156	X		
HIST	157		X	
HIST	158	X	X	
HIST	159	X	X	
HIST	167	X	X	X
HIST	170	X	X	
HMLD	102	X	X	X
HMLD	103	X	X	X
HMLD	104	X	X	
HMLD	105	X	X	
HMLD	200	X		X
HMLD	203		X	
HMLD	205	X		
HOSP	101	X		
HOSP	102		X	
HS	045	X	X	
HS	050	X	X	
HS	050L	X	X	
HS	051	X	X	
HS	051L	X	X	
HS	052	X	X	
HS	052L	X	X	
HS	060	X	X	
HUM	110	X	X	X
HUM	111	X	X	X
HUM	125	X	X	X
HUM	125H	X		
HUM	130	X	X	
HUM	140	X		
HUSR	111	X	X	X
HUSR	118	X		
HUSR	122		X	

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
HUSR	124	X	X	
HUSR	126	X		
HUSR	128		X	
HUSR	130		X	
HUSR	199A	X	X	
HUSR	199B	X	X	
HUSR	230A		X	
HUSR	230B		X	
JAPN	101	X	X	
JAPN	102		X	
JOUR	110	X		
JOUR	120	X	X	
JOUR	147		X	
JOUR	220	X	X	
JOUR	230			X
JOUR	231			X
JOUR	241	X	X	
JOUR	242	X	X	
JOUR	243	X	X	
JOUR	244	X	X	
JOUR	290	X	X	X
KIN	115		X	
KIN	122	X	X	X
KIN	126	X		
KIN	127	X		
KIN	128		X	
KIN	131	X		
KIN	145		X	
KIN	146		X	
KIN	188		X	
KIN	191	X	X	X
KIN	193	X	X	X
KIN	194	X	X	X
KIN	195	X		
KIN	196	X	X	X
KIN	197	X	X	
KIN	290	X	X	
KIN	297		X	
KINA	101			X
KINA	102	X		
KINA	103	X		
KINA	104		X	
KINA	105	X	X	X
KINA	107	X		
KINA	109	X	X	X

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
KINA	110	X	X	
KINA	113		X	
KINA	117	X	X	X
KINA	120	X	X	X
KINA	130	X	X	X
KINA	132	X	X	
KINA	134	X	X	X
KINA	136	X	X	X
KINA	139	X		
KINA	140	X	X	X
KINA	147	X	X	X
KINA	148	X	X	X
KINA	158	X	X	X
KINA	159	X	X	X
KINA	170	X		
KINA	171		X	
KINA	172	X		
KINA	173		X	
KINA	176	X		
KINA	180		X	
KINA	181	X		
KINA	185		X	
KINA	188	X		
KINA	189	X		
KINA	190	X		
KINA	192		X	
KINA	201	X		X
KINA	202	X		
KINA	203	X		
KINA	205		X	
KINA	206		X	
KINA	207	X		
KINA	209	X	X	X
KINA	210	X	X	
KINA	211	X		
KINA	213		X	
KINA	217	X	X	
KINA	230	X	X	X
KINA	258	X	X	X
KINA	270		X	
KINA	281		X	
LIB	101	X	X	
LIT	102	X	X	X
LIT	102H	X	X	X
LIT	112A	X		

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
LIT	112AH	X		
LIT	112B		X	
LIT	112BH		X	
LIT	114	X	X	
LIT	114H	X	X	
LIT	117		X	
LIT	117H		X	
LIT	130	X		
LIT	130H	X		
LIT	141	X		
LIT	142		X	
LIT	142H		X	
LIT	144A	X		
LIT	144B		X	
LIT	146A	X		
LIT	146AH	X		
LIT	146B		X	
LIT	146BH		X	
LIT	147	X	X	
LIT	147H	X	X	
LIT	149	X		
MATH	033	X	X	X
MATH	049	X	X	
MATH	053	X	X	X
MATH	060	X	X	X
MATH	062	X	X	X
MATH	070	X	X	X
MATH	070A,B,C,D	X	X	X
MATH	070 AB	X	X	X
MATH	070 CD	X	X	X
MATH	130	X	X	X
MATH	130H	X	X	
MATH	140	X	X	
MATH	160	X	X	X
MATH	170	X	X	
MATH	175	X	X	X
MATH	180	X	X	X
MATH	190	X	X	X
MATH	190H	X	X	
MATH	191	X	X	X
MATH	250	X	X	X
MATH	260	X	X	
MATH	270	X	X	
MGMT	101	X	X	X
MGMT	105	X	X	

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
MGMT	108	X	X	
MGMT	120	X		
MGMT	125	X		
MGMT	130	X	X	
MGMT	140	X		
MGMT	141	X		
MGMT	142		X	
MGMT	143			X
MGMT	144		X	
MGMT	146	X	X	
MGMT	150	X	X	
MGMT	208	X	X	
MGMT	290	X	X	X
MRKT	170	X	X	
MRKT	171	X		
MRKT	172		X	
MRKT	173	X		
MRKT	174		X	
MRKT	175	X		
MSCM	103	X	X	
MSCM	128	X	X	X
MSCM	134	X	X	X
MUS	101	X	X	X
MUS	103	X	X	
MUS	104	X	X	
MUS	105	X	X	
MUS	106	X	X	
MUS	107	X	X	
MUS	110	X	X	
MUS	116	X	X	
MUS	117	X	X	
MUS	119	X	X	
MUS	120	X	X	
MUS	132	X	X	X
MUS	133	X	X	X
MUS	134	X	X	
MUS	139	X	X	
MUS	140	X	X	
MUS	141	X	X	
MUS	142	X	X	
MUS	145	X	X	
MUS	146	X	X	
MUS	147	X	X	
MUS	148	X	X	
MUS	150	X	X	

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
MUS	151	X	X	
MUS	156	X	X	
MUS	157	X	X	
MUS	216	X	X	
MUS	217	X	X	
MUS	220	X	X	
MUS	234	X	X	
MUS	240	X	X	
MUS	245	X	X	X
MUS	251	X	X	X
MUS	252	X	X	X
MUS	290	X		
MUST	101	X	X	X
MUST	115	X		
MUST	116		X	
MUST	121		X	
MUST	122		X	
MUST	141		X	
MUST	142		X	
MUST	145	X		
MUST	146	X		
MUST	151	X	X	
NUTR	110	X		
NUTR	120		X	
ORTH	040	X		
ORTH	050	X		
ORTH	060		X	
ORTH	070			X
PAC	021	X	X	X
PAC	022	X	X	X
PAC	023	X	X	X
PAC	025	X	X	X
PAC	040	X	X	X
PAC	042	X	X	X
PAC	043	X	X	X
PAC	071	X	X	X
PAC	075E	X	X	
PAC	075F	X	X	
PAC	075G	X	X	
PAC	083	X	X	X
PHIL	101	X	X	X
PHIL	101H		X	
PHIL	110	X	X	
PHIL	112	X	X	
PHIL	120	X	X	X

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
PHIL	124	X		
PHIL	126		X	
PHIL	128		X	
PHIL	128H	X		
PHIL	140		X	
PHTO	185	X	X	X
PHTO	190	X	X	X
PHTO	191	X	X	X
PHTO	290	X	X	
PHTO	292	X	X	
PHY	150	X		
PHY	160		X	
PHY	211	X	X	
PHY	212	X	X	
PHY	213	X	X	
PHY	220		X	
POLS	110	X	X	X
POLS	110H	X		
POLS	125	X	X	
POLS	128		X	
POLS	128H	X		
POLS	130	X	X	
POLS	135	X		
POLS	140	X	X	
POLS	150	X	X	
PSY	101	X	X	X
PSY	101H	X		
PSY	112	X	X	X
PSY	114	X	X	
PSY	121		X	
PSY	127	X		
PSY	180	X	X	
PSY	190	X	X	
PSY	200	X	X	
PSY	210	X	X	
RDIO	104		X	
RDIO	136		X	
RDIO	236		X	
READ	021	X	X	
READ	021L	X	X	
READ	022	X	X	X
READ	022L	X	X	X
READ	043	X	X	X
READ	101	X	X	X
SOC	101	X	X	X

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
SOC	101H		X	
SOC	102	X	X	X
SOC	110	X	X	
SOC	114	X	X	X
SOC	116		X	
SOC	120	X		
SOC	127	X	X	
SPAN	101	X	X	X
SPAN	101S	X	X	X
SPAN	102	X	X	X
SPAN	201	X	X	
SPAN	201H	X	X	
SPAN	202	X	X	
SPCH	100	X	X	X
SPCH	101	X	X	X
SPCH	101H	X	X	X
SPCH	110	X	X	
SPCH	130	X	X	
SPCH	132	X	X	
SPCH	140	X	X	X
SPCH	150	X	X	
SPCH	240	X	X	X
TCED	054		X	
TESL	100	X	X	
THTR	101	X	X	X
THTR	110	X	X	
THTR	111	X	X	
THTR	150	X	X	X
THTR	151	X	X	X
THTR	152	X	X	X
THTR	159	X	X	X
THTR	164	X	X	X
THTR	165	X	X	X
THTR	166	X	X	X
THTR	170	X	X	X
TV	135	X	X	
VN	061		X	
VN	061L		X	
VN	071L	X		
VN	072L	X		
VN	073	X		
VN	074	X		
VN	075	X		
VN	076	X		
VN	077	X		

COURSE SCHEDULE FREQUENCY — continued

Subject	Course	Fall	Spring	Summer
VN	081L		X	
VN	082L		X	
VN	083		X	
VN	084		X	
VN	085		X	
VN	086		X	
VN	087		X	
VOCB	101	X	X	
WELD	040	X	X	X
WELD	050	X		
WELD	055	X		
WELD	075		X	
WELD	080		X	
WFT	077		X	
WFT	101	X	X	
WFT	102	X	X	
WFT	103	X	X	
WFT	104	X	X	
WFT	105	X	X	
WFT	290	X	X	X

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ACCOUNTING

Division of Business

ACCT 100
Introduction to Accounting
Advisory: READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement; 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 placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; ACCT 100
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ACCT 101 or ACCT 101H)*
This course is an introduction to the theory, principles, and practice of accounting and financial reporting for corporations. Topics include analysis and recording of financial transactions; preparation, analysis, and interpretation of financial statements; and accounting for assets, liabilities, and equities. Computer applications are integrated into the homework. This course is required for 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 placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; ACCT 100
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ACCT 101 or ACCT 101H)*
This course is an introduction to the theory, principles, and practice of accounting and financial reporting for corporations. Topics include analysis and recording of financial transactions; preparation, analysis, and interpretation of financial statements; and accounting for assets, liabilities, and equities. Computer applications are integrated into the homework. This course is required for 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 or ACCT 101H
Advisory: READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
Transfers to: UC, CSU
This course introduces students to the fundamentals of managerial accounting for decision making. Topics include manufacturing cost accounting, cost allocation, cost-volume-profit analysis, absorption and variable costing, differential analysis for decision making, capital investment analysis, budgeting, standard costing, responsibility accounting centers, activity-costing, just-in-time environments, and financial statement analysis. Computer applications are integrated into the homework. This course is required for all accounting and business administration majors.
4 Units
72 Lecture hours

ACCT 102H
Managerial Accounting Honors
Prerequisite: ACCT 101 or ACCT 101H, ENGL 101
Advisory: READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
Transfers to: CSU
This course introduces students to the fundamentals of managerial accounting for decision making. Topics include manufacturing cost accounting, cost allocation, cost-volume-profit analysis, absorption and variable costing, differential analysis for decision making, capital investment analysis, budgeting, standard costing, responsibility accounting centers, activity-costing, just-in-time environments, and financial statement analysis. Computer applications are integrated into the homework. This course is required for all accounting and business administration majors. This course is intended for students eligible for the Honors Program.
4 Units
72 Lecture hours

ACCT 103
Payroll Accounting
Advisory: READ 043 or appropriate placement; 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 placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; 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 placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement; 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 placement
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 placement; 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 Río 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 placement
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 Río 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 accurately 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
9 Lecture Hours
27 Lab hours

ACCT 110
Excel for Business and Accounting
Prerequisite: ACCT 101
Advisory: CIT 107
Transfers to: CSU
This course is designed for individuals seeking to enhance entry level Microsoft Excel spreadsheet skills in a business and accounting environment. Students will learn how and why Excel is used for analyzing data, managing budgets, forecasting and modeling financial performance in business.
1 Unit
13.5 Lecture hours
13.5 Lab hours

ACCT 203
Introduction to Cost Accounting
Prerequisite: ACCT 101
Advisory: READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement
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, and 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 fac-

ulty 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 5 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 Communication for Public Service Personnel
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course provides Administration of Justice students an overview of writing techniques for the communication of facts and information in a criminal justice setting, including the correct usage of words and proper sentence structure. Emphasis is placed on law enforcement-specific terms, phrases, and spelling. Topics include but are not limited to crime reports, investigative follow-up reports, traffic collision reports, background investigative summations and recommendations, internal investigative summations and recommendations, press releases, and interagency criminal activity crime bulletins.
3 Units
54 Lecture hours

AJ 101 (C-ID AJ 110)
Introduction to Administration of Justice
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course introduces students to the characteristics of the criminal justice system of the United States. Focus is placed on examining crime measurement, theoretical explanations of crime, responses to crime, components of the criminal justice system, and current challenges to the system. The course examines the evolution of the principles and approaches utilized by the justice system and the evolving forces which have shaped these principles and approaches. Although justice structure and process is examined in a cross-cultural context, emphasis is placed on the justice system of the United States, and particularly the structure and function of the 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides students with an in-depth study of the legal responsibilities of law enforcement. Emphasis is placed on the judicial segment of the administration of justice system. Topics include laws of arrest, custody, and analyses of the past, present, and future procedures for each subsystem within the administration of justice system, from initial entry to final disposition. The relationship each segment maintains with system members is also covered.
3 Units
54 Lecture hours

AJ 104 (C-ID AJ 124)
Legal Aspects of Evidence
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; AJ 101
Transfers to: CSU
This course provides students with an in-depth study of evidence rules. Emphasis is 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 are 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 presents an analysis of the doctrines of criminal liability in the United States and takes up the classification of crimes against persons, property, morals, and public welfare. Special emphasis is placed on the classification and general elements of crime, the definitions of common and statutory law, and the nature of acceptable evidence. The course utilizes case law and case studies to introduce students to criminal law, and its successful completion is a foundation upon which more advanced criminal justice courses will build. The course also includes 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
Advisory: AJ 101 or completion of PAC 040 or equivalent; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 provides students with a comprehensive overview of criminal statutes and their definition. Topics include classification as applied to the system of administration of justice and crimes against persons and property. General statutes, health and safety statutes, and other state and federal laws are discussed.
3 Units
54 Lecture hours

AJ 207 (C-ID AJ 220)
Juvenile Law and Procedure
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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. Emphasis is 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 are 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 placement; READ 043 or appropriate placement; AJ 101
Transfers to: CSU
This course addresses the techniques, procedures, and ethical issues in the investigation of crime. The topics covered include the 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 placement; READ 043 or appropriate placement; AJ 101
Transfers to: CSU
This course provides 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 placement; READ 043 or appropriate placement; AJ 101
Transfers to: CSU
This course is designed to provide students with an in-depth understanding of the history and development of police field operations. Particular emphasis is placed on planning 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 and handling requests for service, vehicular traffic-related problems, and civil and domestic disturbances are also presented.
3 Units
54 Lecture hours

AJ 250
Contemporary Issues in the Criminal Justice System
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 that serve as a basis for contemporary decision making. Specific issues taken up in 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course prepares administration of justice, forensic science, and California peace officer students for the Forensic Science Identification Program. The course provides an introduction to the role of forensics in criminal investigations, examining 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 placement; READ 043 or appropriate placement
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, and 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 5 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This introductory-level course provides students with a working

knowledge of present-day energy systems, including in-depth analysis of the design and installation of alternative energy systems. Topics will include solar electrical systems, wind electrical systems, solar water heating systems, wind mechanical systems, small hydro-electrical systems, geothermal energy, fuel cells, biomass, energy storage, and microgrids. Students will develop skills to construct an alternative energy system. This course is intended for students who are interested in 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 placement; READ 043 or appropriate placement
Transfers to: CSU
In this introductory course, students examine and implement the design and installation of solar photovoltaic power systems, including the installation of a working solar photovoltaic power system. Students 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. The course is designed to prepare students for the North American Board of Certified Energy Practitioners (NABCEP) entry-level exam, and is intended for students who 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)
Advisory: AET/ET 121; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is the second course in the photovoltaic series in which students further examine and implement the design and installation of solar photovoltaic power systems. Students learn how to interpret the National Electrical Code (NEC) specifications concerning photovoltaic installations. 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 who are contemplating 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 placement; READ 043 or appropriate placement
Transfers to: CSU
In this introductory course, students examine and implement the design and installation of wind power systems, including the installation of a working wind generation power system. Students 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; in designing and installing wind power generation systems, students obtain skills for employment. This course is intended for students who 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)
Advisory: AET/ET 123; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is the second course in the wind energy series in which students further examine and implement the design and installation of wind power systems. Students learn how to interpret the National Electrical Code (NEC) specifications concerning wind power installations. 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 who are contemplating a career in the wind turbine power generation industry.
3 Units
45 Lecture hours
27 Lab hours

AET 125
Energy Storage Systems
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or MATH 033B or appropriate placement
Transfers to: CSU
This course provides an introductory overview of energy storage systems. Students will obtain a working knowledge of electric/hybrid vehicles, fast battery charging, smart grids, and microgrids. Renewable energy (solar and wind), peak shaving, and reduction of energy consumption will also be discussed. Students will design and build a renewable energy system with an energy storage solution. This course is intended for students considering a career in the renewable energy industry.
3 Units
45 Lecture hours
27 Lab hours

AET 126
Solar PV Technical Sales
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or MATH 033B or appropriate placement
Transfers to: CSU
This course is designed to provide students with the knowledge and skills of solar photovoltaic (PV) design and sales techniques. The course covers basic solar fundamentals, site evaluation, shade analysis, consumer electric rates, benefits of PV, return on investment, system sizing, and electrical and mechanical design considerations. This course will provide students with the design and sales skills needed to become solar professionals, as well as prepare them for the NABCEP PV Technical Sales Professional Exam.
3 Units
54 Lecture hours

AET 181
Home Energy Management and Auditing (Same as ET 181)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to provide students working in or seeking employment in the green energy field, with an overview of home energy management and auditing. Specifically, the course assists students in preparing 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 placement; READ 043 or appropriate placement
This course is designed to provide students working in or seeking employment in the green energy field, with an overview of industrial energy management and auditing. Specifically, this course assists students in preparing 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 183
Alternative Energy Technology
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or MATH 033B or appropriate placement
Transfers to: CSU
The course focuses on the fundamentals of energy and the energy management systems in residential and commercial buildings. Students will learn procedures and tools used for efficient and effective use of energy to minimize costs and reduce future energy demand. This course is intended for students who are currently active as energy managers or energy professionals and for those just entering the industry.
3 Units
54 Lecture Hours

AET 280
Green Building Design Principles (Same as ET 280)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to provide students working in or seeking employment in the green building field, with an overview of the green building industry and its components. Specifically, this course assists students in preparing 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 and atmosphere, materials and resources, indoor environmental quality, and innovation and design process. Each of these categories are 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 and 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 placement; READ 043 or appropriate placement
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 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
American Sign Language I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 American Sign Language via interactive websites, video programs, and CD-ROMs. This course is designed for students who want to learn how to communicate with people who are deaf and hard of hearing.
4.5 Units
72 Lecture hours
27 Lab hours

ASL 102
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course will provide a continuation to American Sign Language I (ASL 101), emphasizing receptive and expressive skills. The use of facial expressions during signing will also be addressed. Students will be exposed to deaf culture experiences in the classroom and 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 students who want to learn how to communicate with people who are deaf and hard of hearing.
4.5 Units
72 Lecture hours
27 Lab hours

ASL 120
Introduction to Deaf Studies
Prerequisite ASL 101
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course introduces students to the basic information of the American Deaf experience in the United States: Deaf community/culture and American Sign Language. This course exposes students to the history, contributions and contemporary lives of Deaf people in America. This course is interdisciplinary in that it introduces a range of issues that are developed in the purview of Deaf Studies — linguistics, education, sociology, psychology and other fields. This course will be taught using a combination of ASL and spoken English and may or may not have interpreters facilitating the lectures depending on the instructor.
3 Units
54 Lecture hours

ASL 124
Deaf Culture
Prerequisite/Corequisite: ASL 102
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course will cover basic information and research on deaf culture, deaf children and their upbringing, deaf education, the importance of American Sign Language to the deaf

community, deaf societies around the world, and advances in and usage of technology for people who are deaf or hard of hearing. The course will focus on research and progress within deaf culture. This course will be taught using a combination of American Sign Language and spoken English and, depending on the instructor, may or may not have interpreters facilitating the lectures.
3 Units
54 Lecture hours

ASL 201
American Sign Language III
Prerequisite: ASL 102
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course will focus on refining students' knowledge of the grammatical structure and lexicon of American Sign Language as these things relate to its historical, artistic, and cultural influence in mainstream society, with an 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.
4.5 Units
72 Lecture hours
27 Lab hours

ASL 202
American Sign Language IV
Prerequisite: ASL 201
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course will provide a continuation to American Sign Language III (ASL 201). The course will focus on 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.
4.5 Units
72 Lecture hours
27 Lab hours

ASL 211
Beginning Interpreting + Ethics 1
Prerequisite: ASL 102
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
In this course, students survey basic theories, principles, and practices of interpreting/transliterating, including basic ethical considerations, a historical overview of the interpreting profession, and discuss the professional role of the interpreter. Students begin the development of interpreting/transliterating processing skills. This course will be taught using a combination of ASL and spoken English, and may or may not have interpreters facilitating the lectures depending on the instructor.
3 Units
54 Lecture hours

ASL 212
Beginning Interpreting + Ethics 2
Prerequisite. ASL 201, 211
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
In this course, students will continue to learn theories, principles, and practices of interpreting/transliterating including more complex ethical considerations, a current overview of the interpreting profession, and discuss the professional role of the interpreter in today's workforce. This course is designed to allow students to pursue a degree in ASL interpreting. This course will be taught using a combination of ASL and spoken English and may or may not have interpreters facilitating the lectures depending on the instructor.
3 Units
54 Lecture hours

ASL 220
Pathways to Interpreting Careers
Prerequisite: ASL 201, 211
Advisory: ENGL 035 or ENLA 100 or appropriate placement
Transfers to: CSU
In this course students will learn business practices in the profession of interpreting. They will explore various career paths available to ASL interpreters from staff positions to independent contractors. Students will learn legal considerations within the state of California and beyond as they apply to interpreting. This course will be taught using a combination of ASL and spoken English and may or may not have interpreters facilitating the lectures depending on the instructor.
2 Units
36 Lecture hours

ASL 250
ASL Linguistics
Prerequisite: ASL 102
Advisory. ENGL 101
Transfers to: UC, CSU
This course will serve as an introductory course in linguistics, with a special emphasis on American Sign Language (ASL). Students will learn basic linguistic concepts such as phonology, morphology, and syntax as they apply to all languages. Students will further their knowledge of linguistics as it relates specifically to ASL. No prior knowledge of linguistics is needed to take this course. Upon completion of this course students will be able to pursue careers related to Deaf education or ASL pedagogy. This course will be taught using a combination of ASL and spoken English and may or may not have interpreters facilitating the lectures depending on the instructor.
3 Units
54 Lecture hours

ASL 270
ASL Literature
Prerequisite: ASL 201
Advisory: ASL 250; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course will take students on a journey through the history and current status of the literary body of American Sign Language (ASL). This is a rare opportunity to explore a body of literature in its infancy stages. Students will analyze videos and books created or written by ASL poetic performers or authors. Word choices, deeper meanings, and metaphors used will be discussed. This course will be taught using a combination of ASL and spoken English and may or may not have interpreters facilitating the lectures depending on the instructor.
3 Units
54 Lecture hours

ASL 280
ASL Storytelling
Prerequisite: ASL 124, ASL 201
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is designed to further refine the student's knowledge and mastery of American Sign Language (ASL) through the practical application of storytelling. Students will study master storytellers and analyze their techniques. Upon completion of this course, students will have created multiple original stories in ASL. These are necessary skills to achieve fluency in ASL.
2 Units
36 Lecture hours

ANIMATION

Division of Arts & Cultural Programs

ANIM 101
Introduction to Digital 3-D Animation
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is an introduction to the production pipeline used in games, film and TV. Students will be introduced to the concepts of digital sculpting, lighting, texturing, rendering, rigging, and animating 3-D objects. This course is beneficial for all students in courses 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 3-D Digital Animation
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ART 130; ART 230
Transfers to: CSU
This course introduces students to the basic principles of 3-D 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 3-D 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 placement; READ 043 or appropriate placement; ANIM 105
Transfers to: UC, 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 (such as those that focus on multimedia, internet web design, game design, and broadcast media production) and industrial design (including architecture, automotive, furniture, clothing, and product design). Students will be introduced to the use of storyboards and relevant concepts related to 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 Rendering
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ANIM 101
Transfers to: CSU
This is an introductory course for all students interested in learning about lighting, rendering, and texturing for 3-D animation and games. Students focus on creating lighting scenarios and texture editing systems to generate and render surface details on a variety of 3-D objects for film, TV, and games. The class is beneficial to all students interested in career fields using computer graphics. The course is recommended for all animation, art, and architecture transfer students.
4 Units
54 Lecture hours
54 Lab hours

ANIM 130
Modeling for Games
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ANIM 101
Transfers to: CSU
This course is an introduction to the basic principles used in 3-D modeling, UVW unwrapping, and texturing for games. The course is intended for beginning 3-D students and covers the tools and techniques used in the creation of 3-D game assets. This course is beneficial for all students in courses 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 133
Character Design
Prerequisite: ART 260
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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
Entertainment Art Portfolio
Prerequisite: ANIM 101; ANIM 105
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 art and prepare a portfolio project using programs such as Photoshop CC, Premier CC, ZBrush, Maya, and the Unity game engine. 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

ANTHROPOLOGY

Division of Behavorial & Social Sciences

ANTH 101 (C-ID ANTH 110)
Introduction to Physical Anthropology
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), 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-IDANTH 115L)
Physical Anthropology Lab
Prerequisite/Corequisite: ANTH 101 or ANTH 101H
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 using 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ANTH 102 or ANTH 102H)*
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 includes an extensive examination of cross-cultural diversity. Students 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 is the issue of how cultural anthropology can contribute to addressing important problems in the modern world. The 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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ANTH 102 or ANTH 102H)*
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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is a survey of human world history and prehistory as identified by the archaeological record. Emphasis is placed on major changes in human technological, economic, and social development over the course of two million years of the human material record, including topics such as the history of archaeology, research ethics, data types, theory and methodology, dating techniques, survey and site excavation methods, analysis and interpretations, and reasons to preserve the past. Case studies from the excavation of major archaeological sites around the world are examined and discussed as examples. This course is for students who are interested in ancient history or the field of

archaeology, or 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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is 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 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 classes, genders, and ethnicities 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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students interested 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 placement; READ 043 or appropriate placement
Transfers to: CSU
Medical anthropology explores the perceptions of disease, health, and healing in different cultures around the world. Sociocultural, biological, and ecological perspectives are used to understand the origins of illness and disease and medical practices across cultures. Topics include diagnosis and therapies, the role of healers like witch doctors and shamans, stress and mental health, unequal access to medical care, and medical anthropology applied to global health problems.
3 Units
54 Lecture hours

ANTH 125
Religion, Magic, Witchcraft, and the Supernatural
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students interested in learning about the diverse religious beliefs and practices that exist around the world. As an introduction to the anthropological study of religion, the course includes 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 is 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 is included. Additionally, concepts relating to death and the afterlife (e.g., souls, ghosts, reincarnation, and zombies) are explored.
3 Units
54 Lecture hours

ARCHITECTURE

Division of Career & Technical Education

ARCH 110
Construction Document Reading and Estimating
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or appropriate placement
Transfers to: CSU
This course is designed for architecture students as well as apprentices and employees in all areas of the construction industry, and covers residential, light commercial, and industrial building construction. The course introduces the use of prints, construction documents, and the theory of construction estimating as used in the building industry. Principles of reading working drawings and plans; heating, ventilation, and air conditioning (HVAC) specifications; details and elevations; and electrical specifications are included, as are materials estimating, and estimating rules, tables, and procedures.
3 Units
45 Lecture hours
27 Lab hours

ARCH 115
Introduction to Residential Architecture: Drawing and Design
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ENGT 101 or two years of high school drafting
Transfers to: CSU
This introductory course is for students interested in the field of architectural drawing and design. The course includes the study of architectural graphic standards related to creating construction drawings for residential projects (e.g., site plans, floor plans, roof plans, and elevations). Electrical, foundation and framing, and other drawings for a single-family residential structure are discussed. Emphasis is placed on symbology, conventions, and techniques to develop technical skills an entry-level architectural drafter needs. Construction methods, building codes, design factors, planning, and the use of reference materials are discussed and applied. All construction documents are developed using traditional board drafting methods and standards.
4 Units
54 Lecture hours
54 Lab hours

ARCH 125
Residential Architecture: Design & Construction
Prerequisite: ARCH 115
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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. The course includes the study of common planning concerns as well as the most significant building ordinances and codes that influence the design of single-family residential spaces. As a component of the course, students prepare select architectural plans for a residential building project. Emphasis is placed on site planning, appropriate and accurate space dimensioning, door/window (safety) requirements, plumbing requirements, multi-story access, exterior surface coverings, and basic structural framing.
4 Units
54 Lecture hours
54 Lab hours

ARCH 215
Architectural Perspective and Rendering
Prerequisite: ARCH 115
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ENGT 105
Transfers to: CSU
In this course, students are introduced to the theory and practical application of perspective drawing and rendering as used in architecture. Topics include one and two-point perspectives, entourage, and an introduction to rendering techniques such as markers, pastels, pencil, pen, and ink. Presentation techniques also are discussed.
4 Units
54 Lecture hours
54 Lab hours

ARCH 225
Commercial Architecture: Design and Construction
Prerequisite: ARCH 115
Advisory: ENGL 030 or ENLA 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 common planning concerns as well as the most significant building ordinances and codes which influence the design of commercial spaces. As a component of the course, students will prepare select architectural plans for a commercial building project. Emphasis is placed on effective space utilization, technical plans, elevations, aesthetics, accessible requirements, site utilization and development, traffic flow, and landscaping.
4 Units
54 Lecture hours
54 Lab hours

ARCH 235
Architectural Design Studio
Prerequisite: ARCH 215
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ENGT 150
Transfers to: UC, CSU
This course is for students pursuing an Associate in Science Degree in Architecture with the intent of transferring and continuing their study of architecture. Topics 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 are expressed verbally and graphically using presentation drawings, isometrics and perspectives, conceptual models, renderings, and photographs. Students 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
Architectural Design Studio II
Prerequisite: ARCH 235
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This second-level course builds upon the foundation of the Architectural Design Studio course (ARCH 235). The course presents additional design approaches to the spatial and form definition of an architectural program; urban and site planning; and topographic, civil, and environmental issues. Architectural design proposals and projects are expressed verbally and graphically using presentation drawings, conceptual models, renderings, and photographs. Students enhance their design skills in a studio atmosphere, working to justify their design solutions.
4 Units
54 Lecture hours
54 Lab hours

ARCH 260
Residential Architecture Using Revit and 3D Software
Prerequisite: ARCH 115; ENGT 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is for students pursuing an Associate of Science Degree in Architecture or Architectural Design and Drawing with the intent of transferring and continuing their study of architecture. It presents an intensive study of building information modeling (BIM) applications as they relate to architecture. Utilizing the latest releases of Revit BIM software and technical and architectural drafting conventions learned in previous courses, students will produce two- and three-dimensional (2D and 3D) BIM-generated residential architectural drawings and 3D virtual models. High technology skills necessary to function as a designer or computer-aided design and drafting (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 115, ENGT 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is for students pursuing an Associate of Science Degree in Architecture or Architectural Design and Drawing with the intent of transferring and continuing their study of architecture. It presents an intensive study of building information modeling (BIM) applications as they relate to architecture. Utilizing the latest releases of Revit software and technical and architectural drafting conventions learned previously in other courses, students will produce two- and three-dimensional (2D and 3D) BIM generated commercial architectural drawings and 3D virtual models. Advanced BIM applications extend the fundamentals learned in the Residential Architecture Using Revit and 3D Software course (ARCH 260) to include structural, mechanical, electrical, and plumbing extensions of the Revit software. High technology skills necessary to function as a designer or computer-aided design and drafting (CADD) drafter are emphasized.
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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. Students work 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. The course is intended for students whose job is in architectural design- or drafting-related fields and who have completed or enrolled in the appropriate courses. Instructor approval is necessary to enroll in this course. 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 and 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an opportunity for students to expand their studies in Architectural Design and Drawing beyond the classroom by completing projects and/or assignments arranged by agreement between students and an instructor. Students are required to contract with the instructor to determine the scope of the assignments and the unit value assigned for successful completion of the course. 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 Studio Arts
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This lecture/lab course provides an introduction to the Studio 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, printmaking, design, mixed media and sculpture.
3 Units
36 Lecture hours
72 Lab hours

ART 104 (C-ID ARTH 145)
Art of the Ancient Americas
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course provides 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 or art history, and/or 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: ART 105 or ART 105H)*
The course presents a broad overview of Prehistoric, Mesopotamian, Egyptian, Greek, Etruscan, Roman, Early Christian, Islamic, and Medieval art and architecture. The 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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. The 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 placement
Transfers to: UC (credit limit), 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. The course is designed for students 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 placement; READ 043 or appropriate placement
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 placement; ENGL 035 or ENLA 100 or appropriate placement
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
History of American Art
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course includes a study of American art and architecture from the colonial period to the early 20th century. The focus is on the art of the United States, with a close examination of the country's artistic exchanges with Canada, Mexico, and South America. This course is appropriate for students with an interest in American studies, Latin American studies,those seeking to fulfill the general education requirements in Fine Arts and Humanities, the AA Degree in General Studies in Arts and Human Expression and/or the AA-T Degree in Art History.
3 Units
54 Lecture hours

ART 110 (C-ID ARTH 100)
Understanding Visual Art
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 (C-ID FTVE 105)
The Art of Film
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 117
History of World Ceramics
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement
Transfers to: UC, CSU
This course provides the student with an introduction to world ceramic and pottery traditions: its vocabulary, its forms, the roles it plays in society, and the variety of processes employed by its makers. Using examples from cultures around the world and across time, this course offers a broad overview to any student interested in art and culture.
3 Units
54 Lecture hours

ART 120 (C-ID ARTS 100)
Two Dimensional Design
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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
36 Lecture hours
72 Lab hours

ART 121 (C-ID ARTS 101)
Three Dimensional Design
Advisory: ART 120; READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement
Transfers to: UC, CSU
This is a foundational, first semester art 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
36 Lecture hours
72 Lab hours

ART 124 (C-ID ARTS 270)
Color Theory
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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
36 Lecture hours
72 Lab hours

ART 135 (C-ID ARTS 210)
Beginning Painting
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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, while providing an understanding of the historical and cultural development of painting in human expression and creativity. 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 placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 inter-

mediate problems on the wheel, basic decorative techniques, and more advanced use of glaze. Students will be exploring contemporary artistic practice and the social and historical elements of ceramic art. The students will start learning about the kilns and how they are loaded and fired.
3 Units
36 Lecture hours
72 Lab hours

ART 142
Introduction to Ceramic Handbuilding
Advisory: ENGL 101 or appropriate placement; READ 043 or appropriate placement
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 143
Ceramic Handbuilding II
Prerequisite: ART 142
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 in handbuilding. Included in the course will be a emphasis on exploring handbuilt forms in both vessels and ceramic sculpture. Students will solve visual and conceptual problems dealing with art and principles of design, i.e. line, shape, color, form, texture, and space.
3 Units
36 Lecture hours
72 Lab hours

ART 144
Ceramic Handbuilding III
Prerequisite: ART 141
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This is an advanced course in ceramics open to all art and non-art majors, with continued emphasis on skills and ceramic art theory. ART 144 allows the student to explore complex problems of ceramic art. Students work with the ceramic medium in conjunction with other materials (wood, metal, glass). Students will explore clay surface design, as well as developing a ceramic handbuilt body of work.
3 Units
36 Lecture hours
72 Lab hours

ART 145
Glaze Composition
Prerequisite: ART 140 or ART 142
Advisory: MATH 062 or ability to conduct basic calculations using fractions, decimals, and percentages
Transfers to: CSU
This course provides an introduction to basic glaze and clay calculations. The students will learn to calculate glaze formulas and batch recipes. Students will analyze glazes and clay bodies. They will learn to formulate and alter glazes and clay bodies. The course involves mathematical computations as well as basic ceramic laboratory skills and safety precautions for handling chemicals. This course teaches students how to create unique glazes for their art work.
3 Units
27 Lecture hours
81 Lab hours

ART 146
Introduction to Sculpture
Prerequisite: ART 121
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ART 130
Transfers to: UC, CSU
This course is suited for art majors transferring to a four-year college or any student interested in working in the arts. It provides 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; 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 placement; 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
Prerequisite: ART 130
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement;
Transfers to: UC, CSU
This course is designed for students majoring in the Visual Arts: including Fine Arts, Illustration, Animation, Graphic Design 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
36 Lecture hours
72 Lab hours

ART 175
Computer Graphics
Advisory: READ 022 or appropriate placement
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 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 190
Gallery and Exhibition Design
Advisory: ENGL 035 or ENLA 100 or appropriate placement, READ 043 or appropriate placement
Transfers to: CSU
This course is a combination of studio and lecture that provides students with creative experience in exhibition design and display. It is appropriate for all students interested in art, art exhibitions, museum studies, and cultural studies. The topics addressed include exhibition space planning, principles of color and design, art exhibition principles, and proper care and handling of art objects. Students are also given an introduction to the basic principles of art curating and display.
3 Units
36 Lecture hours
72 Lab hours

ART 230 (C-ID ARTS 200)
Beginning Life Drawing
Prerequisite: ART 130
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 organization 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 placement; READ 043 or appropriate placement
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 ART 260
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 the prerequisite courses 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 problems-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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 and learn to create an edition of original prints.
3 Units
36 Lecture hours
72 Lab hours

ART 260
Figure Drawing for Animators
Prerequisite: ART 230
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This figure drawing course for animators and art students focuses on gesture and how to capture the essential movement, dynamic expression, and individual attitude of the model. It provides an introduction to figure drawing for animation and is designed to promote deeper understanding of life drawing that will serve as a foundation for further studies in animation and entertainment arts. Students will refine basic skills in drawing human anatomy while learning to draw the figure in sequential movement, understand weight and balance, facial and body expression, and figure invention. This course may be taken by art majors wishing to further life drawing skills and is recommended for all animation art majors.
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 placement; READ 043 or appropriate placement
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 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 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 and 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 placement; READ 022 or appropriate placement
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 and 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 299D
Directed Study in Drawing
Prerequisite: ART 232 or ART 233
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement; ART 190 or ART 105 or ART 105H or ART 106 or 106H or ART 112
Transfers to: CSU
This 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 and 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 placement; READ 043 or appropriate placement
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 and 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
Prerequisite: ART 131 or ART 136 or ART 141 or ART 142 or ART 170 or ART 231 or GDSN 178
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 placement; MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate placement
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
Corequisite: ADN 150L and ADN 154
Transfers to: CSU
This course focuses on the application
This course focuses on the application of the nursing process in caring for patients with disturbances in fluid and electrolyte status; acid/base balance; and digestive, renal, endocrine, cardiovascular and respiratory

systems. Discussion includes the pathophysiology of disease processes as well as medical and nursing interventions, and students apply theoretical concepts in a clinical setting. This course is designed for students in the Associate Degree Nursing (ADN) Program. The Board of Registered Nursing requires that students be enrolled concurrently in ADN 150 and ADN 150L, and pass both courses together. The courses 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
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 fluid and electrolyte status; acid/base balance; and digestive, renal, endocrine, cardiovascular and respiratory systems. Discussion includes the pathophysiology of disease processes as well as medical and nursing interventions, and students apply theoretical concepts in a clinical setting. This course is designed for students in the Associate Degree Nursing (ADN) Program. The Board of Registered Nursing requires that students be enrolled concurrently in ADN 150 and ADN 150L, and pass both courses together. The courses 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 placement; MATH 070 or MATH 070D or MATH 073 or appropriate placement
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 placement; MATH 070 or MATH 070D or MATH 073 or appropriate placement
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 placement
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 placement
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 placement
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 pathophysiologies associated with childbearing and newborns. Students 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, and students apply learned theoretical concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing (ADN) Program. The Board of Registered Nursing requires that students be enrolled concurrently in ADN 155 and ADN 155L, and pass both courses together. The courses 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
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, as well as developmental, biological, interpersonal, and intrapersonal stressors that affect children and their families. The pathophysiology of disease processes that may occur during childhood and related medical and nursing interven-

tions are discussed. This course is designed for students in the Associate Degree Nursing (ADN) Program. The Board of Registered Nursing requires that students be enrolled concurrently in ADN 156 and ADN 156L, and pass both courses together. The courses 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 placement
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 250
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 placement; MATH 070 or MATH 070D or MATH 073 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course focuses on the aging process as it relates to normal aging and related 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 (BRN) requires that ADN 251 students must be concurrently enrolled in ADN 251L, and pass both courses together: ADN 251 and ADN 251L 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course focuses on the aging pThis course focuses on the aging process as it relates to normal aging and changing biological, interpersonal, and intrapersonal needs. The course also focuses on the application of the nursing process in caring for patients with disturbances in perception, coordination, and mobility. Discussion includes the pathophysiology of disease processes, as well as medical and nursing interventions and rehabilitative approaches to restoring and maintaining optimum health. This course is designed for students in the Associate Degree Nursing (ADN) Program. The Board of Registered Nursing requires that students be enrolled concurrently in ADN 251 and ADN 251L, and pass both courses together. The courses cannot be taken individually for credit.
2.5 Units
135 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 placement
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 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 approaches to handling 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. This course is offered on a pass/no pass basis.
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 lThis course focuses on principles of leadership and management as well as current trends in nursing practice. Discussion includes the legal and ethical responsibilities of the professional nurse, and the specific skills and attributes students need as they transition to nursing practice as a member of a team. Methods to maintain professional competence and advancement in the profession are explored. This course is designed for students in the Associate Degree Nursing (ADN) Program. The Board of Registered Nursing requires that students be enrolled concurrently in ADN 254 and ADN 254L, and pass both courses together. The courses 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 the 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 be enrolled concurrently in ADN 254 and ADN 254L, and pass both courses together. The courses 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 Río Hondo College and local Medical Centers that will provide a structured clinical practice environment and learning opportunities that support a deeper understanding of the healthcare environment in which Registered Nurses work. The course will be structured with 5 hours of theory at Río Hondo College and 235 hours of clinical/simulation coursework. The theory coursework 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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
Transfers to: UC (credit limit), 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, techniques, and tools of the astronomer. Indoor labs will demonstrate classical methods and techniques of science. Student s 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 and 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 5 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 placement; READ 043 or appropriate placement
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 0451
Honda/Acura Chassis Electrical Systems
Prerequisite: AUTO 101 or AUTO 102
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
AUTO 0451 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 posting 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
Prerequisite: AUTO 101 or AUTO 102
Corequisite: AUTO 125
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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
Prerequisite: AUTO 101 or AUTO 102
Corequisite: AUTO 240
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 Río 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 placement; READ 043 or appropriate placement
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 placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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, AUTO 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an overview of automotive diagnosis and tune-up procedures as they pertain to the function and control of the engine, fuel, ignition, starting, and charging systems. It is the first in a series of engine diagnosis and tune-up classes and is designed for students who want to enter the field of tune-up, driveability, and emissions mechanics.
3 Units
45 Lecture hours
27 Lab hours

AUTO 115
Computerized Engine Controls and Diagnostics
Prerequisite: AUTO 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to provide students with an introduction to the Automotive Service Excellence (ASE) Advanced Engine Performance Specialist Certification Test (L1) "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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 updating 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 to successfully complete 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, and 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 Río 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 placement; READ 043 or appropriate placement; 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 to successfully complete 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 and calibration of testing equipment, as well as performing complete smog check inspections of vehicles. Upon successful completion of this course, the student will receive a certificate of completion from the Río 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 placement; READ 043 or appropriate placement; 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 placement; 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 143
Alternative Fuels Technician
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
Transfers to: CSU
This course covers gaseous alternative fuels as they pertain to modern vehicles. Various alternative fuels (e.g., compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), hydrogen, and biofuels) are examined and compared; and the operation, system components, and safe handling of these fuels is discussed. Students will develop skills in the areas of vehicle preparation, system component identification, and repair procedures related to alternative fuel vehicles. The course is designed for students and technicians working on stationary power engines, transportation, and clean fuels who seek to improve skills related to the maintenance and repair of gaseous fuels; and will provide students with information related to Automotive Service Excellence (ASE) F1 or H1 test preparation.
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 placement; READ 043 or appropriate placement
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. The physics of battery storage, hybrid generation systems, and electric vehicle applications and their integrated systems from various manufacturers will be discussed. This course is suitable for students entering into the alternative fuels or power generation and energy technology fields.
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 placement; READ 043 or appropriate placement
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 106
Advisory: AUTO 102, READ 043 or appropriate placement
Transfers to: CSU
This course provides an overview of the modern automobile's electrical system as related to the engine and engine-related systems. The theory of operation, operational characteristics, methods of problem diagnosis, and repair of the following systems are included: electronic ignition, electronic fuel injection, engine management, emission control, charging, cooling and starting. This course prepares the student for the Automotive Service Excellence (ASE) A8 Engine Performance test 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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
Transfers to: CSU
This course examines the theory of the operation, service and repair procedures, related tool and equipment use, and strategy-based problem diagnosis of modern disc and drum brakes. The procedures for imported and domestic automobiles and light trucks are developed through classroom discussions, demonstrations, and laboratory experiences. The course is designed for students who want 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 of Career and Technical Education (CTE) 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement, READ 043 or appropriate placement
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 placement; 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: 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 Occupational Safety and Health Administration/National Electrical Code/ National Fire Protection Association (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; and Level 1, Level 2, Level 3 battery charging and fuel cell technology. Dynamics of battery storage, hybrid generation systems, electric vehicle applications, and their integrated systems from many manufactures are discussed. High-voltage battery management systems including active/passive design to charging systems will be the primary focus of the course. This course is for students working in the hybrid and electric vehicle or power engineering and technology fields.
4 Units
54 Lecture hours
54 Lab hours

AUTO 266
Fuel Cell Technology Fundamentals (Formerly AUTO 265)
Prerequisite: AUTO 260
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; AUTO 147.
Transfer to: CSU
This course addresses the fundamentals of the different types of fuel cells and their application for the generation of mobile, vehicular, and stationary power. Topics will include: safety standards (OSHA/NEC/NFPA) when developing, servicing, and working in a high voltage/power inverter transfer; battery storage technologies, and regeneration of electrical power from kinetic energy. A descriptive overview of key fuel cell technologies, including proton exchange membrane (PEM), direct methanol fuel cell, alkaline, and solid oxide fuel cell, will be provided together with potential applications for transportation, stationary, and portable power. Hydrogen production/storage and high voltage safety will also be covered.
3 Units
45 Lecture hours
27 Lab hours

AUTO 290
Cooperative Work Experience/Internship for Automotive Technology Related Fields
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 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 and 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 placement; READ 043 or appropriate placement
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 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
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. It provides 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 National Institute for Automotive Service Excellence (ASE) exams relevant to industry standards. Topics include becoming efficient in the shop, mastering 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, and 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; and 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 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
This course provides automotive technology students with a detailed, practical study of the development of the automobile from its beginnings to the present day. The course 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 that revolutionized transportation and 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 led to 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 is 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 are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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
This course provides automotive technology students 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. The course is a practical and contextualized study of the importance of the technological automotive changes that have evolved as a result of 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 to their important role in the way we live today. Current automotive industry practices and relevant case studies are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: Enrollment requires an AS degree in Automotive Technology or similar field, and special approval from the program advisor.
Advisory: PHY 120, ENGL 201 or 201H, MATH 130 or MATH 130H
This course provides automotive technology students with a detailed, practical application of electrical and electronic systems of the modern automobile. The course is a practical study of computerized vehicle controls and diagnostic strategies as they pertain 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 is placed on the design of system parts, components, and subsystems; and their operational characteristics, including programmed microprocessors, microcontrollers, and computer-language protocol. Current industry-approved diagnostic, troubleshooting, and reprogramming techniques and relevant case studies are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: 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, MATH 130 or MATH 130H,MGMT 146
This course provides automotive technology students with a detailed, practical study of the management of an automotive and/or transportation-related business. The course 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 automotive business regulations in the areas of competition, labor laws, securities regulation, consumer protection, and environmental laws. Emphasis is placed on automotive service basic business structures, ownership, and facilities; as well as service operations and management, financial and marketing issues, and customer/employee relations. Current automotive industry practices and relevant case studies are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: 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, MATH 130 or MATH 130H
This course provides automotive technology students with a detailed, practical application of the fuels, lubricants, and combustion systems of the modern automobile. The course is a realistic study of the physical and chemical properties of fuels, lubricants, and combustion, including diagnostic strategies as they pertain to the function, operation,

and everyday use of the systems and subsystems 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 is placed on 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 are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: 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, MATH 130 or MATH 130H, ACCT 101 or ACCT 101H
This course provides automotive technology students with a detailed, practical application of accounting fundamentals and business management principles, and the adaptation of these things to factory-to- store and day-to-day operations. The course is a practical study of the theory, principles, and practice of preparing and interpreting 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 is placed upon the concepts of using accounting fundamental principles, cash and 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 are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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 390
Cooperative Work Experience/ Internship for Automotive Technology Bachelor of Science Degree
Prerequisite: ENGL 201 or ENGL 201H
Advisory: ENGL 325
This course supports and reinforces on-the-job training in business and industrial establishments under the supervision of an Automotive Technology Bachelor of Science Degree college instructor and is facilitated by the use of learning outcomes. The student will be working in a skilled or professional level assignment in their area of vocational interest as it relates to the Automotive Technology Bachelor's Degree. Emphasis will be placed on the student's ability to meet performance objectives related to instruction that are equal to or greater than their current job duties and conditions of regular employment. This course is intended for students who are currently enrolled in the BS Degree Program, and whose job is related to the automotive/transportation field.
1 – 3 Units / 3 Total Hours of Lecture
Student Unpaid Internship:
1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours
Student Paid Internship:
1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours

AUTO 400
Analyzing Stability, Dynamics, and NVH
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, MATH 130 or MATH 130H
This course provides automotive technology students with a detailed, practical application of stability, dynamics, and noise- vibration-harshness (NVH) of the modern automobile. The course is a practical study of the systems that provide vehicle operation safety, including diagnostic strategies as they pertain to the function, operation, and everyday use of 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 is placed on 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 are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: Enrollment requires as AS degree in Automotive Technology or similar field, and special approval from the Program Advisor
Advisory: PHY 120, ENGL 201 or ENGL 201H, MATH 130 or Math 130H, MRKT 170
This course provides automotive technology students with a detailed, practical application of various internet and social media marketing strategies, including category-based guidelines impacting the operations of the automotive wholesale and retail business. The course 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 is placed on the use of online and traditional media to increase customer satisfaction, including the preparation of business management and marketing reports. Current automotive industry practices and relevant case studies are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: 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, MATH 130 or MATH 130H
This course provides automotive technology students with a detailed, practical application of electrome-

chanical and hydraulic functions of transmission and drivetrain systems of the modern automobile. The course is a practical study of the systems that provide vehicle mobility, including diagnostic strategies as they pertain to the function, operation, and everyday use of 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 is placed on the design of system parts, components, and subsystems, and their operational characteristics, including techniques in reducing noise-vibration-harshness (NVH). Current industry- approved diagnostic and troubleshooting techniques and relevant case studies are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: 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, MATH 130 or MATH 130H
This course provides automotive technology students 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 course is a practical study of a broad scope of regulatory agencies and regulations such as the Department of Motor Vehicles (DMV), Internal Revenue Service (IRS), Franchise Tax Board (FTB), Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), air quality managements districts (AQMDs), National Highway Transportation Safety Administration (NHTSA), Federal Trade Commission (FTC), fair labor standards, truth in advertising, truth in lending, the 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 is placed on the services offered in these departments and their potential for generating profits and improving customer satisfaction. Current automotive industry practices and relevant case studies are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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: 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, MATH 130 or MATH 130H
This course provides automotive technology students with a detailed, practical application of vehicle occupant protection, comfort, and security systems of the modern automobile. The course 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 they pertain 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 is placed on the design of system parts, components, and 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 are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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 and Fixed Operations 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, MATH 130 or MATH 130H
This course provides the automotive technology students 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, work scheduling, sales promotions, using advertising media, inventory control, repair order generation and control, selecting and motivating employees, and directing sales, parts and service staff. Emphasis is placed on 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 are discussed and demonstrated throughout the course. The overall goal of this course is to have students 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 and 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*No credit will be given for BIOL 101 if taken after 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 application 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 033 or MATH 033B or appropriate placement
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 Río 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 expo-

sure 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement; 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 and 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 and 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 and 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

BIOTECHNOLOGY

Division of Mathematics, Sciences, and Engineering

BIOT 100
Introduction to Biotechnology
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, 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 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 placement; READ 043 or appropriate placement
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

BIOT 130
Fermentation Technology 1
Advisory: BIOT 110, BIOL 101, CHEM 110; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement;
Transfers to: CSU
This introductory-level course takes up fermentation technologies, and emphasizes especially batch yeast fermentations associated with the brewing of beer. The course covers the history, development, and current status of beer brewing; the biology and genetics of yeast; and the influence of raw materials on the final outcome of the brewing process. Emphasis is placed on current technologies involved in modern, small-scale brewing. In addition, the use of yeast as a general agent of biological change is discussed. The laboratory part of the course emphasizes the design, formulation, and execution of a specific product in a hands-on environment in order to simulate current industry standards and practices. Field trips of industrial fermentation sites are included.
5 Units
54 Lecture hours
108 Lab hours

BIOT 230
Fermentation Technology 2
Prerequisite: BIOT 130, BIOT 110, CHEM 110 or CHEM 120
Transfers to: CSU
This course is a continuation of Fermentation Technology 1 and focuses on bacterial fermentation in a laboratory setting. The course emphasizes the biological and genetic aspects of bacteria and the role of bacteria in the production of modern biotechnologies. Technologies particular to both batch and continuous fermentation processes and product identification and recovery are explored. Students are placed in a production-styled laboratory setting to produce and purify a particular bacterial product following current industry standards and protocols. Field trips to local industrial installations will be used to highlight and clarify real-world applications.
5 Units
54 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 placement; READ 043 or appropriate placement
*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

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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 water 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 devises 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement.
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement.
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement.
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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

CARP 050F
Tilt Up Construction
Prerequisite: State Indentured Carpenter Union Apprentice; CARP 040A; CARP 040B
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 constructions 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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. Correct 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 industrywide 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 industrywide 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
This course provides an introduction 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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement

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 Experiencecourse 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; Concurrent enrollment in MATH 070 or MATH 070D or MATH 073
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: CHEM 110, CHEM 120; no credit if taken after CHEM 130)*
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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: CHEM 110, CHEM 120; no credit if taken after CHEM 130)*
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 placement; MATH 175 or appropriate placement
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 II
Prerequisite: CHEM 130
Advisory: ENGL 101; READ 043 or appropriate placement; MATH 180 or appropriate placement
Transfers to: UC, 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 chemistry 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 through out 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 and 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 5 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

CHICANA/O/X STUDIES

Division of Behavioral & Social Sciences

CHST 101
Introduction to Chicana/o/x Studies
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This is an introductory-level course that examines the cultural, economic, educational and political issues as they impact the Chicana/o/x in the U.S. Topics include Chicana/o/x 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 Chicana/o/x (i.e., 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 United States
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 soldiers on the Pacific and European war front, post-war struggles for economic and social justice, and radicalism. It concludes with an examination of the dramatic growth of the Mexican/Mexican-American population in the United States. Students interested in this course may include individuals with familial or personal connections to the Chicana/o/x (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 placement; READ 043 or appropriate placement
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 of 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 interdisciplinary, drawing on methodologies from racial/ethnic studies, women/gender studies, queer studies, history, literature, sociology, and popular culture. The 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
Chicana/o/x Politics (Same as POLS 150)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course examines U.S. history and political issues relevant to the Chicana/o/x and Latina/o/x community. The course provides an overview of demographic changes in the U.S. and examines political activism and political leadership. Students interested in this course may include individuals with familial or personal connections to the Chicana/o/x (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 102 (C-ID ECE 220)
Nutrition, Health and Safety for Children
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 5 Child Development Permit.
3 Units
54 Lecture hours

CD 103
Parenting
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following coursers: 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 5 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 placement; READ 043 or appropriate placement
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 5 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 placement; READ 043 or appropriate placement
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 5 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 placement; READ 043 or appropriate placement
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 applied 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 (DSS) Classification Indicator DS3 and applies toward the State of California Title 5 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 5 Child Development Permit.
3 Units
54 Lecture hours

CD 119
Music and Movement for Children
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 043 or appropriate placement
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 5 Child Development Permit.
3 Units
54 Lecture hours

CD 120
Experiences in Language Arts
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 5 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 placement; READ 043 or appropriate placement
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 interrelationship 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 5 Child Development Permit.
3 Units
54 Lecture hours

CD 211
Infant and Toddler Development
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 5 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 placement; READ 043 or appropriate placement
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 5 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 5 Child Development Permits.
3 Units
54 Lecture hours

CD 226
Introduction to Children with Special Needs
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 043 or appropriate placement
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 placement
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 5 Child Development Permits.

3.4 consecutive hours of weekly supervised field experience at the Río 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 placement; READ 043 or appropriate placement
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 5 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 placement; READ 043 or appropriate placement
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 5 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 placement; READ 043 or appropriate placement
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 placement; ENGL 035 or ENLA 100 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 053 or appropriate placement
Transfers to: CSU
This course is for all students interested in the career fields of civil design drafting and civil engineering. It provides an overview 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 design and drafting (CADD) software to complete projects relating to subdivision development, roadway planning and layout, structural design and detailing, site grading, project scheduling, wastewater management, and similar engineering tasks.
4 Units
54 Lecture hours
54 Lab hours

CIV 142
Introduction to Surveying and GPS
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 053 or appropriate placement; CIT 102, MATH 060
Transfers to: CSU
This course is for students interested in the career fields of civil design drafting, surveying/mapping, and civil engineering. It covers the principles and practices of land surveying, including measuring distance, direction, elevation and position; topographic mapping; and the 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 practitioners 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 placement; READ 043 or appropriate placement; MATH 053 or appropriate placement; CIT 102, MATH 060
Transfers to: CSU
This course is for students who have a basic understanding of surveying and are interested in pursuing a career in the field of land surveying. The 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, the U.S. Public Land Survey System, boundary surveying, and the 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 placement; READ 043 or appropriate placement; MATH 053 or appropriate placement; CIV 140 or industry experience
Transfers to: CSU
This course is an introduction to the use of concrete as a common construction material. The course is intended for students who intend to pursue careers in construction and/or wish to progress into construction management as a sub-discipline of civil engineering. Topics include the components, physical properties, mix design, quality control, and placing and 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This intermediate-level course is for students interested in the career field of civil design drafting and civil engineering. In the course the practice and 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. Preparing construction documents for buildings and related constructs will also be covered. Other topics include project notes, specifications, and details for civil engineering drawings. Students will use both hand drafting and computer-aided design and drafting (CADD) to complete projects related to these topics.
3 Units
36 Lecture hours
54 Lab hours

CIV 245
Civil Engineering Design and Modeling
Prerequisite: CIV 140; ENGT 150 or ENGT 170
Prerequisite/Corequisite: CIV 241
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement
Transfers to: CSU
This advanced-level course is for students interested in the career fields of civil engineering design drafting and civil engineering, and takes up the design, analysis, and preparation of drawings used in the civil engineering field. Students will use civil engineering software such as Bentley's OpenRoads or Autodesk'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 software for terrain modeling and editing, surfaces, profiles, cross-sections, earthwork 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 placement; READ 043 or appropriate placement
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. Students work 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 design- or drafting-related fields and who have completed or enrolled in the appropriate courses. Instructor approval is needed to enroll in the course. 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 and 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an opportunity for students to expand their studies in Civil Design Technology beyond the classroom by completing a project or an assignment arranged by an agreement between students and an instructor. Students are required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. 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
Advisory: READ 043 or appropriate placement
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 (C-ID BUS 140)
Introduction to Computer Information Technology
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; 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 111
Introduction to Programming
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or appropriate placement; CIT 101
Transfers to: CSU
This course is for students who want to develop the problem-solving abilities required to work in the computer field. Programming concepts are discussed through a variety of techniques including hierarchy diagrams, flow-charting, data diagrams, and pseudocode. The course will also include information on integrated development environments (IDEs).
3 Units
54 Lecture hours

CIT 114
Introduction to Cloud Computing with DevOps
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement.
Transfers to: CSU
This course is an examination of information systems as it relates to developer operations (DevOps), cloud computing, and their role in business. It will focus on information systems, security, database management systems, networking, operating systems, cloud computing, project management strategies, version control, and programming methodologies. It will apply these concepts and methods through hands-on projects developing computer-based solutions to business problems.
4 Units
63 Lecture hours
27 Lab hours

CIT 117
Microsoft Excel
Advisory: CIT 101; READ 043 or appropriate placement
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 business 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/ Office Technologies Degree or Certificate of Achievement, or professionals wanting comprehensive knowledge of Microsoft® Excel®.
3 Units
45 Lecture hours
27 Lab hours

CIT 119
Microsoft Access
Advisory: CIT 101; READ 043 or appropriate placement
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 125
Introduction to C++ Programming
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or appropriate placement; CIT 111, CIT 101
Transfers to: UC, CSU
This course is for students who want 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. The course covers the fundamentals of software development using the most popular language (C++). 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
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. The 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 input and output, and exception handling.
4 Units
63 Lecture hours
27 Lab hours

CIT 127 (C-ID COMP 122)
Python Programming I
Prerequisite: CIT 111
Transfers to: UC, 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 (C-ID COMP 132)
Python Programming II
Prerequisite: CIT 127
Transfers to: UC, 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 placement; READ 043 or appropriate placement; 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 and deploy Windows using 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
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 130
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
45 Lecture hours
27 Lab hours

CIT 133
Windows Server Applications Infrastructure
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 101, CIT 130
Transfers to: CSU
This course is designed for students preparing to take the Windows Server Applications Infrastructure certification exam. Students will learn to deploy servers, configure remote desktop services, configure web services infrastructure, and configure network application services.
3 Units
45 Lecture hours
27 Lab hours

CIT 135
Introduction to Java Programming
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 101, CIT 111
Transfers to: UC, CSU
This course is intended for students who want to complete the requirements for the Computer Information Technology degree, or professionals who want an introduction to Java programming. The 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
Transfers to: UC, CSU
This course is for students who want to complete the requirements for the Computer Information Technology degree, or professionals who want to continue developing their programming skills using Java. The 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 multithreading.
4 Units
63 Lecture hours
27 Lab hours

CIT 139
Linux 1
Prerequisite: CIT 114 or CIT 101
Transfers to: CSU
This course provides a skills foundation for students pursuing a career as Linux system administrators. The

course prepares students for the Red Hat System Administration I (RH124) certificate. Students must complete this course if they wish to pursue the Red Hat System Administration II (RH134) certificate.
3 Units
45 Lecture hours
27 Lab hours

CIT 140
Linux II
Prerequisite: CIT 139
Transfers to: CSU
This course provides skills that build on the skills learned in Linux I. It prepares students for the Red Hat System Administrator II (RH134) certificate. RH134 focuses on the key tasks needed to become a full time Linux administrator.
3 Units
45 Lecture hours
27 Lab hours

CIT 155
Introduction to E-Commerce
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or appropriate placement; CIT 101
Transfers to: CSU
This course provides a hands-on, problem-solving approach to learning both basic and more advanced aspects of doing business on the Internet. Students learn how to use electronic commerce effectively, including selling and marketing on the Internet, developing business-to-business online strategies, using online auctions, identifying the hardware and software required to support security for e- commerce, selecting electronic payment systems, and planning for e-commerce. Additionally, students learn how and why e-commerce is an important part of our economy and society.
3 Units
54 Lecture hours

CIT 160
Introduction to Operating Systems
Prerequisite: CIT 101
Advisory: CIT 060
Transfers to: CSU
This course provides an introduction to the operating systems used in modern business infrastructure, including Windows (desktop and server), Unix, Linux, and Mac OS X. Students will learn how these systems are used in the industry, desktop virtualization, networking basics, and information related to how to create mixed environments.
3 Units
45 Lecture hours
27 Lab hours

CIT 170
Server +
Prerequisite: CIT 101
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 or CIT 114
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an overview of the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of Internet protocol (IP) addressing and the fundamentals of ethernet, media, and operations concepts are introduced to provide a foundation for further study of computer networks. The Open Systems Interconnection (OSI) and Transmission Control Protocol (TCP) layered models are used to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. This course prepares students for the CompTIA Network+ certification exam.
3 Units
45 Lecture hours
27 Lab hours

CIT 172
Database Essentials in Amazon Web Services
Prerequisite: CIT 101 or CIT 114
Transfers to: CSU
This course provides the students with an introduction to the core concepts in data and information management in traditional and cloud systems. It is centered around the core skills of identifying organizational information requirements, modeling them using conceptual data modeling techniques, converting the conceptual data models into relational data models and verifying its structural characteristics with normalization techniques, and implementing and utilizing a relational database using an industrial-strength database management system in Amazon Web Services. The course will also include coverage of basic database administration tasks and key concepts of data quality and data security. In addition to developing database applications, the course helps the students understand how large-scale packaged systems are highly dependent on the use of Database Management Systems (DBMSs). Building on the transactional database understanding, the course provides an introduction to data and information management technologies that provide decision support capabilities under the broad business intelligence umbrella.
3 Units
45 Lecture hours
27 Lab hours

CIT 173
Compute Engines in Amazon Web Services
Prerequisite: CIT 114
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course addresses how cloud computing systems are built using a common set of core technologies, algorithms, and design principles centered around distributed systems. Students will use the Amazon Web Services (AWS) Management Console to provision, load-balance and scale their applications using the Elastic Compute Cloud (EC2) and the AWS Elastic Beanstalk. The course discusses, from a developer perspective, the most important reasons for using AWS and examines the underlying design principles of scalable cloud applications.
1.5 Units
22.5 Lecture hours
13.5 Lab hours

CIT 174
Security in Amazon Web Services
Prerequisite: CIT 114
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course focuses on protecting the confidentiality, integrity and availability of computing systems and data. Students learn how Amazon Web Service (AWS) uses redundant and layered controls, continuous validation and testing, and a substantial amount of automation to ensure the underlying infrastructure is continuously monitored and protected. Students examine the AWS Shared

Responsibility Model and access the AWS Management Console to learn more about security tools and features provided by the AWS platform.
1.5 Units
22.5 Lecture hours
13.5 Lab hours

CIT 175
DevOps Engineering in Amazon Web Services
Prerequisite: CIT 173 and CIT 174
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 127
Transfers to: CSU
In this course, students explore how development processes can be automated and integrated with operations so changes to software can be deployed to cloud computing environments according to DevOps (developer and operations) best practices. Students will use Amazon Web Services (AWS) products to provision infrastructure then deploy code using a managed pipeline. Operations topics include initializing infrastructure as code, applying security, monitoring service health, and troubleshooting. Development topics include secure deployment practices with continuous integration and continuous delivery as it relates to the software development life cycle. Students will build their skills by participating in in-class interactive lectures, hands-on lab activities, and working on comprehensive assignments.
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 placement
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 192
Security+
Prerequisite: CIT 101; CIT 210
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 180
Transfers to: CSU
This course provides 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 exam.
3 Units
45 Lecture hours
27 Lab hours

CIT 200
Systems Analysis and Design
Prerequisite: CIT 101 or CIT 114
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 DCHP 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 placement; READ 043 or appropriate placement; CIT 180
Transfers to: CSU
This course is the second of two courses designed to prepare stu-

dents 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 placement; READ 043 or appropriate placement
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. Students work in a skilled or professional-level assignment in their area of vocational interest and 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 computer information technology and who have completed or enrolled in the appropriate coursework. Instructor approval is needed to enroll in the course. 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

COMPUTER SCIENCE

Division of Business

CS 142 (C-ID COMP 142)
Computer Architecture and Organization
Prerequisite: CIT 127
Transfers to: UC, CSU
This course examines the organization and behavior of real computer systems at the assembly-language level. The mapping of statements and constructs in a high-level language onto sequences of machine instructions is studied, as well as the internal representation of simple data types and structures. Numerical computation is examined, noting the various data representation errors and potential procedural errors.
3 Units
54 Lecture hours

CS 152 (C-ID COMP 152)
Discrete Structures
Prerequisite: CIT 127
Transfers to: UC, CSU
This course is an introduction to the discrete structures used in Computer Science with an emphasis on their applications. Topics covered include: Functions, Relations and Sets; Basic Logic; Proof Techniques; Basics of Counting; Graphs and Trees; and Discrete Probability.
3 Units
54 Lecture 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 placement; READ 043 or appropriate placement
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 060
Corrections Basic Academy
Prerequisite: Enrollment is restricted to sworn cadets employed by California Department of Corrections and Rehabilitation
This course is designed for the California Department of Corrections and Rehabilitation (CDCR) cadet who has successfully passed and completed the employment requirements established for a position as a state correctional officer. This course covers relevant topics required by the Commission of Correctional Peace Officer Standards and Training (CPOST) per California Penal Code Sections 13600 through 13603.
23 Units
364 Lecture hours
156 Lab hours

CORR 101 (C-ID AJ 200)
Introduction to Corrections
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides students with an overview of the history and trends of adult and juvenile corrections. It focuses 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 is also examined. This course has been identified by the Correctional Peace Officer Standards and Training (CPOST) Board of the Peace Officers Association as fulfilling the educational requirements of the CPOST Certificate for newly-hired officers after July 1, 1995 by the California Department of Corrections and Rehabilitation(CDCR) and California Youth Authority (CYA).
3 Units
54 Lecture hours

CORR 104
Control and Supervision in Corrections
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CORR 101
Transfers to: CSU
This course provides students with an overview of supervision of inmates in local, state, and federal correctional institutions. The issues of control in a continuum form of institutional daily living through crisis situations are introduced and discussed. The course emphasizes the role played by the offender and the correctional worker. Topics include inmate subculture, violence and the 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 are also discussed. This course has been identified by the Correctional Peace Officer Standards and Training (CPOST) Board of the California Department of Corrections and Rehabilitation (CDCR), California Youth Authority (CYA), and California Correctional Peace Officers Association as fulfilling the educational requirements of the CPOST Certificate for newly-hired officers after July 1, 1995 by CDCR and CYA.
3 Units
54 Lecture hours

CORR 106
Legal Aspects of Corrections
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CORR 101
Transfers to: CSU
This course provides students with an awareness of the historical framework, concepts, and precedents that guide correctional practice. Course material broadens students' perspectives of the corrections environment, civil rights of prisoners, and responsibilities and liabilities of corrections officials. The course has been identified by the Correctional Peace Officer Standards and Training (CPOST) Board of the California Department of Corrections and Rehabilitation (CDCR), California Youth Authority (CYA), and California Correctional Peace Officers Association as fulfilling the 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 Skills for Correctional Officers
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CORR 101
Transfers to: CSU
This course provides students with an introduction to and overview of the interviewing techniques and counseling skills employed by correctional officers. An overview of the interviewing and counseling techniques used by entry-level practitioners in a correctional setting is provided. Emphasis is placed on the development of positive relationships between the inmate client and support personnel.
3 Units
54 Lecture hours

CORR 208
Leadership in Corrections
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides students with an overview of the skills needed 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course introduces students 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, are also addressed.
3 Units
54 Lecture hours

CORR 210
Supervision in Public Safety
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides students with an overview of the characteristics of 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides students with an understanding of the types of conflict situations that may be encountered while working in a correctional facility. The following topics may be discussed as they pertain to the correctional experience: 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.
3 Units
54 Lecture hours

CORR 264
Inmate Discipline in Corrections
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; AJ 101
Transfers to: CSU
This course provides students with an overview of 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 (POST).
3 Units
54 Lecture hours

CORR 265
Supervision of Sex Offenders
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 3 units credit for all COUN courses)*
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 Río 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 3 units credit for all COUN courses)*
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 Río 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 3 units credit for all COUN courses)*
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 Río 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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 3 units credit for all COUN courses)*
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 placement
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 placement; READ 022 or appropriate placement
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 Río 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. This course is offered on a pass/no pass basis.
0.5 Units
9 Lecture hours

COUN 151
Career Exploration and Life Planning
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 3 units credit for all COUN courses)*
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 placement; READ 043 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is designed to provide the physical training and preparation for students interested in dance, yoga, Pilates, and athletics, and is suitable for individuals seeking to move with greater efficiency and less pain in everyday activities. Students learn how to move safely and effectively while developing strength, flexibility, proper alignment, agility, balance, and coordination. Coursework is designed for those who want 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course offers dance and non-dance students alike an opportunity to study cultural diversity through the activity of dance. Students learn how to analyze and perform basic movement patterns as they compare and contrast the social conventions, religious traditions, and historic contexts represented in the dance practices from different parts of the world performed in the United States today.
1 Unit
54 Lab hours

DANC 151
Modern Dance I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This studio course offers beginning modern dancers an introduction to the fundamental principles of modern dance. The 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, students preparing for transfer, and students seeking careers in dance. This course is a requirement for the Associate of Arts Degree in Dance and the Certificate of Achievement in Dance. The course may be taken once and 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 placement; READ 043 or appropriate placement; DANC 151
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This introductory course is designed for students who seek technical skill in classical ballet. The course will focus on functional body alignment and placement, traditional steps and combinations, musicality, ballet terminology, and the development of strength and flexibility. Students also gain knowledge of classical and contemporary ballet history. This course may be taken once and repeated three times for credit.
1 Unit
54 Lab hours

DANC 154
Jazz Dance I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is designed to introduce beginning students to the fundamental physical skills, polyrhythms, terminology, and historical context that form the basis of jazz dance technique. Highly visible on stage and screen, jazz dance is an eclectic and versatile contemporary art form with deep roots in African-American music and dance. A variety of jazz dance styles are introduced, and may include tap, musical theater, contemporary lyrical, pop, funk, hip-hop, Lindy Hop, and other African-American, Latin, Cuban, and Afro-Caribbean social dances that form the basis of this dance genre in the United States.
1 Unit
54 Lab hours

DANC 157
Hip-Hop Dance
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
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 placement; READ 043 or appropriate placement; DANC 151
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This introductory course focuses on the art and craft of dance composition. Through lecture and activity, students learn how to incorporate the elements of dance in order to create meaningful dance works. Basic elements of choreography—including form, design, motivation, phrasing, gesture, rhythm, dynamics, musical accompaniment, and production basics—are explored through improvisational exercises and experimentation. Additionally, students learn to analyze dance critically through Laban movement analysis (LMA). The class culminates 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 placement; READ 043 or appropriate placement; DANC 151; DANC 159; DANC 251
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This introductory course focuses on the technical aspects of dance production and is designed for beginner-level dance students. Topics of exploration include basic staging, costume design, set design, make-up, lighting, sound production, and publicity. Productions are presented for public performance 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
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 hand-held 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 172
Dance Repertory
Corequisite: DANC 180
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; DANC 151
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
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 placement: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: DANC 179 or DANC 179H)*
This survey course investigates the forces which and figures who have shaped dance through history. Through readings, films, research, and class discussions, students study dance forms from ancient to contemporary times, paying particular attention to Western concert dance. Comparisons of various dance techniques, theories, and personalities are

conducted through dance movement analysis. This course is designed for students seeking to broaden their understanding of dance while fulfilling their general education arts requirement, and for dance majors pursuing an Associate of Arts Degree in Dance or Certificate of Achievement in Dance.
3 Units
54 Lecture hours

DANC 179H
Dance History Honors
Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: DANC 179 or DANC 179H)*
This survey course investigates the forces which and figures who have shaped dance through history. Through readings, films, research, and class discussions, students study dance forms from ancient to contemporary times, paying particular attention to Western concert dance. Comparisons of various dance techniques, theories, and personalities are conducted through dance movement analysis. This course is designed for students seeking to broaden their understanding of dance while fulfilling their general education arts requirement, and for dance majors pursuing an Associate of Arts Degree in Dance or Certificate of Achievement in Dance. The course is intended for students who meet Honors Program requirements.
3 Units
54 Lecture hours

DANC 180
Performance
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; DANC 151; DANC 159; DANC 251
Corequisite: DANC 152 or DANC 162 or DANC 172 or DANC 182
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)* 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 for 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 placement; READ 043 or appropriate placement; DANC 151; DANC 159; DANC 162; DANC 251
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course provides an opportunity for dance students to develop and practice dance ensemble skills necessary to rehearse for 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 are covered. Productions are presented for public performance 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: DANC 199 or DANC 199H)*
This survey course is a multicultural exploration of one of the world's oldest and most universal art forms. Dance is analyzed in terms of body, effort, space, and shape; and examined to determine cultural, social, and political influences. In addition, the history of dance techniques and dance genres are investigated through lecture, film, and performance. This course is designed for students seeking to broaden their understanding of dance while fulfilling their general education arts requirement, and for dance majors pursuing an Associate of Arts Degree in Dance or Certificate of Achievement in Dance.
3 Units
54 Lecture hours

DANC 199H
Dance Appreciation Honors
Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: DANC 199 or DANC 199H)*
This survey course is a multicultural exploration of one of the world's oldest and most universal art forms. Dance is analyzed in terms of body, effort, space, and shape; and examined to determine cultural, social, and political influences. In addition, the history of dance techniques and dance genres are investigated through lecture, film, and performance. This course is designed for students seeking to broaden their understanding of dance while fulfilling their general education arts requirement, and for dance majors pursuing an Associate of Arts Degree in Dance or Certificate of Achievement in Dance. The course is intended for students 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This studio course offers intermediate modern dancers an opportunity to deepen and strengthen fundamental skills acquired in Modern Dance I. While continuing to develop proper alignment and modern dance technique, the intermediate student learns to perform combinations while shifting spatial orientation and integrating improvisation as required in auditions. Learning to create movement phrases, students develop a sense of artistry and dynamic phrasing necessary for performing. Furthering their understanding of and ability to identify the underlying movement principles of modern dance, students hone their technical skills in preparation for transfer or careers in dance. This course is a requirement for the Associate of Arts Degree in Dance and Certificate of Achievement in Dance. This course may be taken once and 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This intermediate-level course is designed for students who want to further develop 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 are also introduced. Students have the opportunity to perform in an informal showing or concert setting. This course may be

taken once and 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This intermediate-level course is designed for students who wish to further develop the technical and performance skills acquired in Jazz Dance I. The social histories and cultural contexts of jazz dance are emphasized through lectures, readings, and observations of professional dance concerts, musical theater, and contemporary dance in the film, television, and music video industries. Students also have the opportunity to perform in an informal showing or concert setting.
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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ECON 101 or ECON 101H)*
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ECON 101 or ECON 101H)*
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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ECON 102 or ECON 102H)*
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ECON 102 or ECON 102H)*
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 135 (same as POLS 135)
International Political Economy
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement
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 Río Hondo College.
1 Unit
18 Lecture hours

ED 105
Tutoring Reading Skills to Adult Students
Prerequisite: READ 043 with a grade of A or B
Prerequisite/Corequisite: ED 090
Advisory: ENGL 101
Transfers to: CSU
This course prepares students to tutor reading skills to adult learners at the community college. Tutors will review a range of vocabulary and comprehension skills needed for success. This course is intended for all tutors, especially those who plan to tutor reading, English, or English as a New Language (ENLA).
0.5 Units
9 Lecture hours

ED 110 (C-ID EDUC 200)
Introduction to Teaching
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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

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 or 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 applicable course and is offered on a pass/no pass 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 placement; ENGL 030 or EDEV 030 or ENLA 034 or appropriate placement
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
Prerequisite: EDEV 033A or MATH 033A
Advisory: READ 022 or appropriate placement; ENGL 030 or EDEV 030 or ENLA 034 or appropriate placement
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 placement; READ 043 or appropriate placement
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 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 Río Hondo College and four year institutions.
3 Units
54 Lecture hours

EDEV 134
Study Techniques
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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

EDEV 151
Career Exploration and Life Planning
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course will examine student, career, and self-development theories to empower students to make effective decisions throughout their lives by engaging in the process of career and life planning from psychological, sociological, and physiological perspectives. Students will compare and contrast human development and career theories, decision-making, factors that contribute to college success, life skills, adult workplace competencies, labor market trends in a global economy, successful job search and workplace behaviors, and their own values, interest, abilities, and personality.
3 Units
54 Lecture hours

ELECTRONICS

Division of Career & Technical Education

ELEC 050
Introduction to the Electrical Industry
Advisory: READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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
DC and AC Fundamentals
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This introductory course in direct current (DC) and alternating current (AC) electricity is for students and for those contemplating a career in the electrical/electronics industry. Course content includes basic theories, resistance, capacitance, inductance, simple DC and AC 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 placement, or TCED 080
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement, or TCED 080
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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
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 include diodes, bipolar junction transistors (BJTs) and field effect transistors (FETs), special diodes, thyristors (i.e., silicon-controlled rectifiers, or SCRs), digital and analog integrated circuits (ICs), and typical applications of each device in amplifier, regulator, oscillator, timer, and digital circuits. Students analyze circuits and solve problems utilizing basic network analysis methods. Laboratory work provides experience with the design and testing 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 who 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
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. The course builds on the foundations students have learned in previous electronics courses, continuing the study of solid state devices and circuits with an emphasis on integrated circuits (ICs) and applications. Students analyze circuits and solve problems utilizing basic network analysis methods, exploring IC device characteristics and considering the topics of input/output impedance, drift, offset, bias current, gain, frequency response, and simple modeling. Device data sheets and application notes are introduced to provide training in the selection of devices for specific purposes. Laboratory work provides experience with the design and testing 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 who are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A.S. degree in Electronics Technology.
4 Units
54 Lecture hours
54 Lab hours

ELEC 111
Introduction to Digital Electronics
Prerequisite: ELEC 101 and 102
Transfers to: CSU
This course is an introduction to digital electronic principles common to all areas of electronics. The course emphasizes the study of number systems and representations such as binary codes, hexadecimal codes, and Boolean algebra; and covers topics including analysis and design of combinational and sequential logic circuits, gates, adders, transistor-transistor logic (TTL), small- and medium- scale integrated devices, programmable logic, simulation of digital circuits and complementary metal–oxide– semiconductors (CMOSs), and emitter-coupled logic (ECL) families. Laboratory work also provides experience with the design and testing of basic digital circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students who 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
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, silicon controlled rectifiers (SCRs) and other digital and analog integrated circuits (ICs), typical applications of each device in inverters, converters, and switching power supplies. Students analyze circuits and solve problems utilizing basic network analysis methods with an emphasis on advanced biasing, cascading, coupling, and phase shifting. Laboratory work provides experience with the design and testing of advanced solid state device circuits including signal tracing and troubleshooting, schematic diagrams, and common laboratory equipment. This course is for students who 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
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 who 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 provides 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, including the central processing unit (CPU) and some of the input/output (I/O) devices used to interface the CPU to various peripheral devices. The course considers the physical aspects of information transfer and control within a digital computer, and emphasizes network architecture, communication protocol, microprogramming instruction sets, and assembly language programming. Laboratory exercises focus on construction and deconstruction of a basic computer and testing and troubleshooting critical functions. This course is for students who 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 and 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 placement; READ 043 or appropriate placement
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 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

EMERGENCY MEDICAL TECHNICIAN

Division of Public Safety

EMT 093
Emergency Medical Technician
Prerequisite: FTEC 121
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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
Prerequisite: READ 043 or appropriate placement; Possession of a class "C" license.
Advisory: ENGL 035 or ENLA 100 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement
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 (C-ID ENGR 220)
Computational Methods in MATLAB/Octave
Prerequisite: PHY 211, MATH 190 or MATH 190H
Advisory: READ 043 or appropriate placement
Transfers to: UC, 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. Topics will be applied to solve typical problems in physics and engineering.
4 Units
54 Lecture hours
54 Lab hours

ENGR 217 (C-ID ENGR 260)
Electric Circuit Analysis
Prerequisite: PHY 213, MATH 260, MATH 270
Transfers to: UC, CSU
This course is for students who intend to pursue a major in engineering. The course covers topics in electrical engineering, including Ohm's law, dependent and independent sources, Kirchhoff's laws, mesh-current and nodal-voltage methods, Thévenin and Norton equivalent circuits, linear superposition, DC/AC transient and steady-state responses of linear RLC circuits, phasors, AC power calculations, and three-phase circuits. Theoretical analysis of modern, semiconducting devices such as diodes, operational amplifiers (op-amps), metal-oxide-semiconductor field-effect transistors (MOSFETs), and bipolar junction transistors (BJTs) will also be explored in the context of non-linear circuits, digital circuits capable of Boolean logic, and the integration of semiconducting circuit elements into linear, RLC circuits with applications.
3 Units
54 Lecture hours

ENGR 217L (C-ID ENGR 260L)
Electric Circuit Analysis Lab
Prerequisite: PHY 213, MATH 260, MATH 270
Prerequisite/Corequisite: ENGR 217
Transfers to: UC, CSU
This course is an introduction to the design, construction, and measurement of analog and digital electrical circuits, including operational amplifiers and modern semiconducting devices. The use of multimeters, oscilloscopes, power supplies, and function generators is emphasized, as is the simulation of circuits with software. Direct current (DC), transient, and alternating current (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 (C-ID ENGR 230)
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This basic course in technical drawing and graphics is 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 design, and engineering design drafting. Practical application is 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
Introduction to Technical Freehand Sketching
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to develop skill in freehand drawing as used by design professionals in architectural and technical applications. Using pen, pencil, and marker; and basic principles of proportion, composition, and freehand techniques, students prepare technical isometric, oblique, perspective, and orthographic sketches to industry standards. Design considerations for various projects involving preliminary design sketches are also introduced. This course is open to all students who want 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ENGT 101 or two years of high school drafting, ENGT 150 or ENGT 170
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, ENGT 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ENGT 170 or CADD experience
Transfers to: CSU
This intermediate course studies 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 also covers American National Standards Institute (ANSI) Y14.5, precision dimensioning, geometric tolerancing, and manufacturing terminology and processes. Lab exercises and drawings are 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course explores 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, communicating, and responsibilities of the engineer with hands-on problem solving.
2 Units
27 Lecture hours
27 Lab hours

ENGT 150
AutoCAD for Basic CADD Applications
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 computer-aided design and drafting (CADD) operator, or to apply CADD to the specific disciplines of mechanical and architectural design, manufacturing, illustration, and engineering-related documents. An overview of computer graphics and CADD utilizing the latest release of AutoCAD software is provided. Students 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 CAD Modeling for Design & Production
Prerequisite: ENGT 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ENGT 101 or two years of high school drafting
Transfers to: CSU
This course is for students pursuing degrees or certificates in Architecture, Civil, or the Engineering Design Drafting Program, and for those who wish to enhance their computer aided design (CAD) skills for workplace productivity. The course is an intermediate application study in CAD, drafting, and graphics using the latest revisions of CAD software. Combined with previously learned technical drafting conventions and basic CAD operational skills, students will use CAD software to produce detailed drawings that involve models, 2D and 3D objects, data attributes, and scales. Emphasis is placed on working with multiple drawing files using external files to create mechanical, architectural, and civil projects.
4 Units
54 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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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
SolidWorks for 3D Modeling and Prototype Applications
Prerequisite: ENGT 122; ENGT 150 or ENGT 170
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is an intensive study of three-dimensional (3D) computer graphics and computer-assisted design and drafting (CADD) 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 produce 3D, parametric, computer-generated virtual models incorporating mechanical design refinements. The course emphasizes the technological skills necessary to function as a design professional in order to apply 3D design graphics technology to the specific disciplines of mechanical engineering, machine drafting and design, manufacturing, animation, modeling, and illustration. Students are introduced to a variety of ways to produce prototype models directly 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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. Students work in a skilled or professional-level assignment in their area of vocational interest and 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 drafting-related fields and who have completed or enrolled in the appropriate coursework. Instructor approval is needed to enroll in the course. 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 and 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an opportunity for students 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. Students are required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion. 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 010S
English Composition Support
Corequisite: ENGL 101
Advisory: ENGL 030 or ENLA 034 or appropriate placement
This is a co-requisite support course for English 101 composition students which assists students who may benefit from supplemental support so that they can succeed in a college-level English composition course. Students will be afforded additional practice in all phases of composition, grammar, and mechanics.
1 Units
18 Lecture hours

ENGL 010SP
English Composition Support Plus
Corequisite: ENGL 101
Advisory: READ 022 or appropriate placement
This is a co-requisite support course for English 101 composition students which assists students who may benefit from additional support so that they can succeed in a college-level English composition course. Students will be afforded additional practice in all phases of composition, grammar, and mechanics.
2 Units
36 Lecture hours

ENGL 020
College Writing Skills
This course is designed to provide students with the skills needed for writing in many college courses. The course covers the basics of college English skills, such as thesis statements, grammar, paper organization, and formatting. This course is intended to prepare students entering college who are planning to take any level of English or English as a new language (ENLA). This is a non-degree applicable course offered on a pass/no pass basis.
0.5 - Units
9 - Lecture hours

ENGL 030
Introductory Composition for Developing Writers
Corequisite: ENGL 030W
Advisory: READ 022 or appropriate placement
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 placement
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 placement
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 placement
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 placement
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 104
Tutorial Skills in Composition
Prerequisite: ENGL 101 with a grade of "A" or ENGL 201 with a grade of "A" or "B"
Prerequisite/Corequisite: ED 090
Transfers to: CSU
This course prepares students to tutor in composition/writing. Prospective tutors will' be trained to assist students in all stages of the writing process: invention/prewriting, composing/drafting, revising, and editing. Emphasis will be placed on the dialogic nature of the tutoring process in writing. This course is intended for all prospective tutors and coaches who will be helping students in writing.
0.5 Units
9 Lecture hours

ENGL 125
Grammar and Usage
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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, morphology, 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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ENGL 127 or ENGL 127H)*
This course explores the nature and structure of world languages. Students will study whole language development through discourse and semantics. The structure of words, which includes phonology, morphology, how words are used together in sentences, syntax, will also be explored. The tool to decode worldwide sounds, the International Phonetic Alphabet, will be a key element in the course. Students will also discuss the difference between learning a language and acquiring a language. This course is beneficial for future teachers and for those majoring in any 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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: ENGL 127 or ENGL 127H)*
This course explores the nature and structure of world languages. Students will study language development through discourse and semantics as well as language use. The structure of words, which includes phonology, morphology, and how words are used together in sentences, syntax, will also be explored. A tool to decode worldwide sounds, the International Phonetic Alphabet, will be a key element in the course. Students will also discuss the difference between learning a language and acquiring language. This course is beneficial for future teachers and for those majoring in any 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 will learn to "read as writers" by analyzing published writings in various genres with a focus on authorial techniques and effectiveness. Students will also be 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 placement
Transfers to: UC (credit limit), 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 (credit limit), 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 and 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 5 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 assignments 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 placement
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 placement
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 Río 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 placement
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 placement; ENLA 024 or appropriate placement
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 and 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 placement
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 placement; ENLA 022 or appropriate placement
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 placement
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 placement
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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This course is designed to educate students working in or seeking employment in the hazardous waste management field, with an overview of industrial processes and their generation of waste streams. Selected industries include electroplating, metal finishing, printed circuit board production, oil refining, 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This introductory-level course provides students with a working knowledge of present-day energy systems, including an in-depth analysis of the design and installation of alternative energy systems. Topics will include solar electrical systems, wind electrical systems, solar water heating systems, wind mechanical systems, small hydro-electrical systems, geothermal energy, fuel cells, biomass, energy storage, and microgrids. Students will develop skills to construct an alternative energy system. The course is intended for students who 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 placement; READ 043 or appropriate placement
Transfers to: CSU
In this introductory course students examine and implement the design and installation of solar photovoltaic power systems, including the installation of a working solar photovoltaic power system. Students 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. The course is designed to prepare students for the North American Board of Certified Energy Practitioners (NABCEP) entry-level exam, and is intended for students who 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)
Advisory: AET 121 or ET 121; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is the second course in the photovoltaic series in which students further examine and implement the design and installation of solar photovoltaic power systems. Students learn how to interpret the National Electrical Code (NEC) specifications concerning photovoltaic installations.

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 who are contemplating 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 placement; READ 043 or appropriate placement
Transfers to: CSU
In this introductory course students examine and implement the design and installation of wind power systems, including the installation of a working wind generation power system. Students 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; in designing and installing wind power generation systems, students obtain skills for employment. This course is intended for students who 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)
Advisory: AET 123 or ET 123; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is the second course in the wind energy series in which students further examine and implement the design and installation of wind power systems. Students learn how to interpret the National Electrical Code (NEC) specifications concerning wind power installations. 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 who 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement;
Transfers to: CSU
This course is designed to educate students working in or seeking employment in areas that include health and safety responsibilities. The course provides an overview of how to identify and evaluate the hazards of chemical, physical, and biological agents that can be encountered in industrial operations, as well as waste disposal and remediation sites.
3 Units
54 Lecture hours

ET 150
Hazardous Waste Management Applications
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This course is designed to provide students 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 helps students develop 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 opportunities for the hands-on application of regulations. These applications include preparing a hazardous waste manifest, labeling and storing containers, sampling and analysis, and preparing a Phase I environmental site assessment (ESA).
4 Units
54 Lecture hours
54 Lab hours

ET 160
Hazardous Waste Site Remediation Systems
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 extraction/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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 Heat-

ing, 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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to provide students working in or seeking employment in the green energy field, with an overview of industrial energy management and auditing. Specifically, this course assists students in preparing 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 HAZWOPER 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This course is designed to introduce students to the field of occupational safety and health management 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 working supervisors, professionals, or business owners responsible for worker safety or placement of workers compensation/general liability insurance, and is a requirement for an Associate of Science Degree in Environmental Technology and/or a Certificate of Achievement in Environmental Technology Health and Safety.
3 Units
54 Lecture hours

ET 251
Fundamentals of Safety and Health II
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate assessment
Transfers to: CSU
This course is designed to introduce students 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 focuses on the elements of developing a safety and health program, behavior-based safety, workplace violence, terrorism preparedness, hazardous materials and waste management, the application of occupational safety and health design/compliance and regulations, and the development of a safety and health and loss prevention program (i.e., a quality assurance/quality control (QA/QC) policy). This course is for students pursuing a degree in Environmental Technology and/or a Certificate of Achievement in Health and Safety, and working professionals or business owners 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
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 sampling protocols approved by the United States Environmental Protection Agency (EPA). 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, students 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This is the initial course in a series of wastewater treatment courses designed to train students in the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. It is intended for students working or who seek employment in the wastewater treatment field. Topics include 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 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 also learn how to analyze and solve operational problems and perform mathematical calculations related to wastewater treatment process control.
3 Units
54 Lecture hours

ET 271
Wastewater Treatment Plant Operations II
Prerequisite: ET 270
Transfers to: CSU
This is the second course in a series of wastewater treatment courses designed to train students in the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. It is intended for students working or who seek employment in the wastewater treatment field. Topics include 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 also learn how to analyze and solve operational problems and to perform mathematical calculations related to wastewater treatment process control.
3 Units
54 Lecture hours

ET 272
Advanced Wastewater Treatment
Prerequisite: ET 271
Transfers to: CSU
This is the third course in a series of wastewater treatment courses designed to train students in the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. It is intended for students working or who seek employment in the wastewater treatment field. Topics 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. This course focuses on actual operating procedures: Students learn to operate and maintain treatment plant instrumentation equipment and systems. Additionally, students learn how to analyze and solve operational problems and perform mathematical calculations relating to wastewater treatment process control.
3 Units
54 Lecture hours

ET 273
Stormwater Management, Treatment and Controls
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This course is designed to provide students working or seeking employment in the water management field with the practical aspects of operating and maintaining water treatment plants. Topics 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 are highlighted in this course, with topics including 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This course is designed to provide students working or seeking employment in the water management field with the practical aspects of operating and maintaining water distribution systems. Topics include the role and duties of water distribution system operators, procedures for operating and maintaining clear wells and stor-

age 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. Students also learn to analyze and solve problems associated with operating a distribution system.
3 Units
54 Lecture hours

ET 277
Water Treatment II
Prerequisite: ET 275
Advisory: ENGL 035, ENLA 100 or appropriate placement; MATH 053 or MATH 053B or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This advanced course in operating and maintaining a water treatment plant emphasizes safe and efficient work practices. Potable water reuse technologies are addressed. The objectives for this course are to prepare the student for the Grades III and IV Water Treatment Operator Certification exams administered by the California State Water Resources Control Board; thus, students learn more advanced calculations. In addition, material is presented on topics including but not limited to advanced water treatment processes, iron and manganese control, fluoridation, softening, trihalomethanes, demineralization, drinking water regulations (e.g., regulations established by the Safe Drinking Water Act, including amendments), handling and disposal of process wastes, and laboratory procedures. Finally, this course enhances students' understanding and imparts the skills needed to address California's future sustainable resource needs.
3 Units
54 Lecture hours

ET 280
Green Building Design Principles (Same as AET 280)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to provide students working in or seeking employment in the green building field, with an overview of the green building industry and its components. Specifically, this course assists students in preparing 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 and atmosphere, materials and resources, indoor environmental quality, and innovation and design process. Each of these categories are 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
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. Students work in a skilled or professional-level assignment in their area of vocational interest, and will meet performance objectives related to instruction 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 who 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 and 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 5 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

FINANCE

Division of Business

FIN 101
Introduction to Financial Planning
Prerequisite: MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement
Advisory: READ 043 or appropriate placement
Transfers to: UC, CSU
This course provides an overview of the fundamentals of financial planning, and is designed to provide students with tools needed to achieve their personal financial goals. Students will learn to make informed decisions related to spending, saving, borrowing, and investing by applying quantitative reasoning concepts. Course topics include the financial planning process, budgeting, cash flow, debt consolidation, investing, and retirement planning.
3 Units
54 Lecture hours

FIN 102
Fundamentals of Financial Management and Investing
Prerequisite: FIN 101
Advisory: MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course will provide an introduction to financial management and investment decision-making involving stocks, bonds, mutual funds, government securities, options, and real estate. Topics include asset allocation principles, modern portfolio theory, investment tools and strategies, diversification, and tax implications of investments. This course is designed for students interested in pursuing a finance certificate or entry-level position in financial planning.
3 Units
54 Lecture hours

FIRE ACADEMY

Division of Public Safety

FAC 043
Advanced Fire Course
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

FAC 050
Fire Instructor I
(Formerly FAC 4344)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course provides the skills and knowledge needed for entry-level professional instructors to perform their duties safely, effectively, and competently. The curriculum is based on the 2012 edition of the National Fire Protection Association (NFPA) 1041 Standard for Fire Service Instructor Professional Qualifications. At the end of this course, candidates for Instructor I certification will be able to teach and deliver instruction from a prepared lesson plan utilizing instructional aids and evaluation instruments, adapt a lesson plan, and complete reporting requirements to the local jurisdiction.
2.5 Units
45 Lecture hours

FAC 051
Fire Instructor II
(Formerly FAC 4345)
Prerequisite: FAC 050
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course provides the skills and knowledge needed for intermediate-level professional instructors to perform their duties safely, effectively, and competently. The curriculum is based on the 2012 edition of the National Fire Protection Association (NFPA) 1041 Standard for Fire Service Instructor Professional Qualifications, and the 2012 edition of NFPA 1403 Standard on Live Fire Training Evolutions. At the end of this course, candidates for Instructor II certification will be able to develop lesson plans and evaluation instruments, teach and deliver instruction, evaluate and coach other instructors, analyze resources, and formulate a program budget.
2.5 Units
45 Lecture hours

FAC 054
Fire Investigation 1A:
Basic Fire Investigation
(Formerly FAC 4348)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course provides information on securing the fire scene and determining the origin and cause of the fire. Topics include responsibilities of a fire investigator, securing the fire ground, conducting an exterior and interior survey, analyzing fire patterns, interpreting individual fire patterns, discriminating the effects of explosions, examining and removing fire debris, reconstructing the area of origin, and inspecting the performance of building systems. The 2014 edition of the National Fire Protection Association (NFPA) 1033 Standard Professional Qualifications for Fire Investigators is the basis for this course.
2.5 Units
45 Lecture hours

FAC 055
Fire Investigation 1B:
Evidence and Documentation
(Formerly FAC 4315)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course provides information on scene documentation and evidence collection/preservation. Topics include photographing the scene, diagramming the scene, constructing investigative notes, processing evidence and establishing chain of custody, processing victims and fatalities, selecting evidence for analysis, maintaining a chain of custody, preparing a fire investigation report, and disposing of evidence. The 2014 edition of the National Fire Protection Association (NFPA) 1033 Standard for Fire Investigator Professional Qualifications is the basis for this course.
2 Units
36 Lecture hours

FAC 118
Firefighter I, Basic Fire Academy
Prerequisite: FTEC 044; FTEC 101; FTEC 102; FTEC 103; FTEC 104; FTEC 105; FTEC 106
Advisory: MATH 033 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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, confined-space rescue awareness, building construction and assemblies, basic fire fighting tactics and strategy, fire prevention, hazardous materials, emergency care, wildland firefighting, rapid intervention, rescue systems, and physical fitness. This course meets the State Board of Fire Services (SBFS) requirements for designation as a "California Firefighter I Accredited Academy" (Accredited Regional Academy (ARA) by the California State Fire Marshal). Students who complete this course also receive California certification in Vehicle Extrication, Fire Control I, Fire Congrol II, Hazardous Materials First Responder Operational, Confined Space Rescue 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
594 Lab hours

FAC 120
Firefighter I
Basic Fire Academy with EMT
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
This course is designed for fire department personnel and other interested students who seek information related to fire service management and supervision. The organizational structure of a fire department, fire officer responsibilities, and establishing command at the scene of an emergency will be discussed.
0.50 to 3.00 Units
9 to 40 Lecture hours
54 Lab hours

FAC 4326
Paramedic Support Operations
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 classifications, 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement
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 4346
Fire Prevention 1A
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 4349
Fire Command 1A
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 4361
Fire Command 1C 1-Zone Fire Fighting for Company Officers
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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

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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 relationship 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement;
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 an incident 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; ability to add, subtract, multiply, and divide
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 placement; READ 043 or appropriate placement
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 includ-

ing wildland firefighting apparatus and municipal fire apparatus.
3 Units
54 Lecture hours

FTEC 114
Fire Investigation
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides the fire technology or other interested students with an understanding of determining causes of fires, including accidental, suspicious, and incendiary. Topics covered include arson laws, field note taking, and fire cause. 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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: FAC 118 or Firefighter 1 certification or completion of a CSFM approved Fire Academy
Advisory: READ 043 or appropriate placement
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.
2.5 Units
25 Lecture hours
60 Lab hours

FTEC 290
Cooperative Work Experience/Internship for Fire Technology Related Fields
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement
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 and 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 5 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 Experieinces
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 presentations, 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 placement; READ 043 or appropriate placement
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 asessment; ENGL 035 or ENLA 100 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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, 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. 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 and 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 5 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
Prerequisite: MATH 070 or MATH 070CD or appropriate placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 101
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: GIS 120 or GIS 220)*
This course introduces fundamental concepts of geographic information and spatial analysis. Using industry standard geospatial application tools including geographic information systems (GIS), global positioning systems (GPS), and small unmanned aerial vehicle (sUAVs), students perform spatial analysis in various disciplines including but not limited to business, public safety, health, politics, civil engineering, and environmental, social, biological and geological sciences. Students learn how to organize geospatial data; visualize spatial patterns by aggregating numbers by areas, analyzing ratios and proportions, generating scatterplots, qualifying volumes and areas, and performing map algebra; and interpret correlations or suitable locations based on provided or researched criteria.
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 placement;READ 043 or appropriate placement
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 150
Small Unmanned Aircraft Systems Procedures and Regulations
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course prepares the student to pass the FAA Aeronautical Knowledge Test for a Remote Pilot Certificate. Material covers subject areas in the Part 107 Aeronautical Knowledge Test including aerodynamics, aircraft performance, navigation, weather, and aviation regulations. Flight workflow demonstration prepares the student in sUAS operation and flight planning with an overview

of trending applications including videography, survey mapping, public safety, and biology.
1.5 Units
18 Lecture hours
27 Lab hours

GIS 220
GIS Applications
Prerequisite: GIS 120
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 043 or appropriate placement; CIT 101
Transfers to: UC (credit limit), 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
GIS plays an important role in many disciplines, and improves the understanding of particular kinds of information through visual interpretation. This course is for students who want a better understanding of 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. The course may include field trips for students to visit industry user meetings.
4 Units
54 Lecture hours
54 Lab hours

GIS 222
GIS for Civil Engineering and Public Works
Prerequisite: GIS 120
Transfers to: CSU
This course uses GIS software and cloud services as analytical and informational tools for engineers, maintenance planners, and facility managers to aid in civil engineering, facilities management, systems evaluation, maintenance, and asset management of public works utilities or capital improvement projects. Students perform hydrological and volumetric calculations by using surface models, sizing public works infrastructure based on land use, zoning and population data, and managing large-scale construction projects and public works infrastructure based on asset management and maintenance principles. The course includes data collection workflow using small unmanned aerial vehicle (sUAV) technology, photogrammetry, and the production of professional web and mobile field data collection applications.
4 Units
54 Lecture hours
54 Lab hours

GIS 230
Geographic Information Systems (GIS) in Environmental Technology
Prerequisite: GIS 120
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
Environmental technicians collect, manage, manipulate and interpret environmental data using geographic information systems (GIS). This course will prepare students to integrate spatial technologies and environmental information in various disciplines in environmental technology, biology, planning, landscape architecture, engineering, geology, archaeology, and related fields. Practical GIS exercises engage the student with industry-used technologies including global positioning systems (GPS), remote sensing, and small unmanned aerial vehicles (sUAVs) in activities designed to increase comprehension of the concepts, and skills they need to become marketable in their chosen environmental fields. Geographic Information Systems. Possible day field trips are scheduled to visit local industries and for 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 placement; READ 043 or appropriate placement
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 common industry scripting language (e.g., Python or Model Builder). 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 interfaces 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 placement; READ 043 or appropriate placement; 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
Prerequisite: GIS 120
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement
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 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement
Transfers to: UC, CSU
This general education course 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 students 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or MATH 053B or appropriate placement
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 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 the Introduction to Physical Geography course (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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This general education course 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 fields of elementary school teaching, ecology, or social science, or travel-related vocations.
3 Units
54 Lecture hours

GEOG 103 (C-ID GEOG 125)
World Regional Geography
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course 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. The course describes the cultural, economic, and environmental aspects of each of these geographic regions. It provides a geographic perspective that enhances 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 and 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 5 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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; ENGL 030 or ENLA 034 or appropriate placement; 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 it's 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 placement; 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 placement; ENGL 030 or ENLA 034 or appropriate placement; NVOC 285
Transfers to: UC, 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 placement; ENGL 030 or ENLA 034 or appropriate placement; NVOC 285
Transfers to: UC, 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 placement; ENGL 030 or ENLA 034 or appropriate placement; NVOC 285
Transfers to: UC, 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 placement; ENGL 030 or ENLA 034 or appropriate placement; 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 placement; ENGL 030 or ENLA 034 or appropriate placement; 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 placement; ENGL 030 or ENLA 034 or appropriate placement; NVOC 285
Transfers to: 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 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 (C-ID ARTS 250)
Digital Imaging Design
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement; NART 285
Transfers to: UC, CSU
This introductory graphic design course uses bitmap software as the principal digital tool. Topics include the principles and elements of design, typography, color, photo/raster/bitmapped-based scanning, vector graphic integration, time-based design, image formats, optimization, re-touching, adjustments, compositing, blending, color, conceptual,

narrative and time-based techniques, technical and creative methods and styles employed by graphic designers as well 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 obtaining a degree or certificate in graphic design, transfer, and those seeking to pursue a career in graphic design or related professions.
3 Units
36 Lecture hours
72 Lab hours

GDSN 179
Advanced Digital Imaging Design
Prerequisite: GDSN 178
Advisory: READ 022 or appropriate placement; ENGL 030 or ENLA 034 or appropriate placement; 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 placement; READ 022 or appropriate placement
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
Advisory: READ 043 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment
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 and 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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or MATH 033B or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement
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 hospital setting with additional emphasis

on the specialized acute care areas such as medical/surgical, orthopedics, pediatrics and obstetrics. The Certified Nurse Assistant Acute Care training course consists of 27 hours of lecture content. This course includes communication, patient observation, reporting and recording training as well as reinforcement of Certified Nurse Assistant basic-care procedures. The Division 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
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 hospital 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 81 hours of clinical practice alongside a clinical employed CNA in an acute care facility with faculty daily/weekly monitoring. This course includes communication, patient observation, reporting and recording training as well as reinforcement of Certified Nurse Assistant basic-care procedures. The Division 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 Unit
81 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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; MATH 033 or MATH 033B or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement

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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement
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 Train-

ing 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 121
Introduction to Heavy Equipment Maintenance
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU

This is an introductory course designed to familiarize the student with the fundamentals of periodic maintenance of various heavy equipment systems such as engines, hydraulics, drive trains, final drives, and hydraulic and air brake systems. Students will learn basic tools and shop equipment, and how to safely perform routine services and minor repair operations on heavy machinery. This course is designed to be a companion course to HET 122, HET 123, HET 124 and HET 125, and is required for the Heavy Equipment Maintenance Technician certificate. Students are encouraged to complete all five courses in order to obtain a firm foundation in heavy equipment technology.
3 Units
45 Lecture hours
27 Lab hours

HET 122
Introduction to Heavy Equipment Electrical and Diagnostic Procedures
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is an introductory course designed to familiarize the student with the basics of the heavy equipment electrical systems. Topics include fundamental principles, electrical symbols and schematics, batteries, starting, charging, and lighting systems. Students will learn the proper use of electrical measuring tools and how to safely perform basic electrical tests and minor repairs. This course is designed to be a companion course to HET 121, HET 123, HET 124 and HET 125, and it is required for the Heavy Equipment Maintenance Technician certificate. Students are encouraged to complete all five courses in order to obtain a firm foundation in heavy equipment technology.
3 Units
45 Lecture hours
27 Lab hours

HET 123
Introduction to Heavy Equipment Mobile Hydraulics
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is an introductory course designed to familiarize the student with the basic construction and operation of mobile hydraulic systems. Topics include hydraulic safety, fundamental principles, pumps, valves, cylinders and motors, hoses, couplers, and hydraulic symbols and schematics. Students will learn the proper use of hydraulic tools and how to safely perform hydraulic tests and minor repairs. This course is designed to be a companion course to HET 121, HET 122, HET 124 and HET 125, and it is required for the Heavy Equipment Maintenance Technician certificate. Students are encouraged to complete all five courses in order to obtain a firm foundation in heavy equipment technology.
3 Units
45 Lecture hours
27 Lab hours

HET 124
Introduction to Heavy Equipment Powertrains
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is an introductory course designed to familiarize the student with the basic construction and operation of heavy equipment powertrains. Topics include principles of gears, friction clutches, fluid couplers, anti-friction bearings, planetary gears, and differential gear sets. Students will learn the proper use of precision measuring tools and how to safely perform basic powertrain tests and minor repairs. This course is designed to be a companion course to HET 121, HET 122, HET 123 and HET 125, and it is required for the Heavy Equipment Maintenance Technician certificate. Students are encouraged to complete all five courses in order to obtain a firm foundation in heavy equipment technology
3 Units
45 Lecture hours
27 Lab hours

HET 125
Introduction to Diesel Engines, Fuel Systems and Emissions
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This is an introductory course designed to familiarize the students with the basic construction, operation, and emission controls of the four-stroke diesel engine. Topics include engine blocks, rotating assemblies, cylinder heads, valve trains, intake, exhaust, lubrication and cooling systems. In addition, fuel systems and diesel emission reduction strategies will also be discussed. Students will learn the proper use of diagnostic tools and how to safely perform basic engine tests and minor repairs. This course is designed to be a companion course to HET 121, HET 122, HET 123 and HET 124, and it is required for the Heavy Equipment Maintenance Technician certificate. Students are encouraged to complete all five courses in order to obtain a firm foundation in Heavy Equipment Technology.
3 Units
45 Lecture hours
27 Lab hours

HET 140
Heavy Equipment Electrical Diagnostics
Prerequisite: HET 107
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or

appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 communications. 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement
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 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: HIST 143 or HIST 143H)*
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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: HIST 143 or HIST 143H)*
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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, 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 polices, 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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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

HMLD 200
Foundations of Critical Infrastructure Protection
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides the student with an overview of the policies, strategies, and practical application of critical infrastructure security and resilience from an all-hazards perspective. Students will explore the contemporary risk environment and examine the challenges and opportunities associated with the following: public-private partnerships;

information-sharing; risk analysis and prioritization; risk mitigation and management; performance measurement; incident management; and addressing future risks.
3 Units
54 Lecture hours

HMLD 203
Homeland Security: Leadership, Policy and Practice
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides the student with an in-depth overview of the issues related to the leadership, policies and practices of homeland security in America and abroad. This course provides for the critical examination of the challenges facing the nation and the homeland security enterprise through detailed investigation of selected case studies from a leadership perspective. Students will analyze significant issues of homeland security from social, political, economic and cultural perspectives facing the nation. This course adds to the Homeland Security program with an in-depth study of the policies and practices affecting homeland security.
3 Units
54 Lecture hours

HMLD 205
Cybersecurity: Policy and Practice
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides the student with an overview of the domestic and global issues related to the policies and practices of cybersecurity in America. This course includes an analysis of the history of the Internet, the technological advances of internet based programs and the security of the cyber domain. Students will also investigate the role economic, political and social factors play in determining how cybersecurity will play a significant role in society from a domestic and international level of analysis.
3 Units
54 Lecture hours

HOSPITALITY

Division of Career & Technical Education

HOSP 101 (C-ID HOSP 100)
Introduction to the Hospitality Industry
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID HOSP 140)
Introduction to Hotel Operations
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID HOSP 110)
Sanitation and Safety
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID HOSP 130)
Introduction to Food and Beverage Management
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID HOSP 150)
Hospitality Law
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
The course explores the legal relationship and considerations of hotel, restaurant, travel and tourism operations. Limiting personal and business exposure to liability and best practices for complying with requirements of the US legal system are emphasized. Topics include food and beverage liability, employee selection, common contracts, responsibilities to guests and for guest property, safety and security, and Americans with Disabilities Act.
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 placement; READ 043 or appropriate placement
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 (C-ID ADS 150X)
Chemical Dependency: Intervention, Treatment, and Recovery
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 reformative 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 120
Introduction to Rehabilitation Services
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
The purpose of this course is to provide students with an introduction to the field of rehabilitation services. This course presents an orientation to federal/state and private rehabilitation/community agencies, which are involved in facilitating the rehabilitation and treatment processes of individuals. A historical, philosophical, and social overview of rehabilitation counseling will be provided, as well as coverage of the private/state agencies and community support that assist people with disabilities. A wide variety of different issues related to the professions of rehabilitation will be discussed in detail. Students will learn to analyze the personal, social, and vocational implications of a disability in an individual's participation in a community and their own lives.
3 Units
54 Lecture hours

HUSR 122 (C-ID ADS 130X)
Introduction to Group Leadership and Process
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 (C-ID ADS 170X)
Introduction to Case Management and Documentation
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID ADS 180X)
Counseling the Family of the Addicted Person
Advisory: ENGL 035 OR ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course explores understanding mental illness and persons with more than one mental/psychiatric disorder. It introduces students to the various disorders in infancy, childhood, adolescence and adulthood. It will introduce students to co-existing disorders and various diagnosis and treatment techniques used to treat this unique population. Students will tour two different types of mental health facilities to provide an additional understanding of mental health issues.
3 Units
54 Lecture hours

HUSR 130 (C-ID ADS 120X)
Essential Counseling Skills
Advisory: ENGL 035 OR ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 or HUSR 111
Corequisite: HUSR 199B
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course and its corequisite (HUSR 199B) provide students with supervised field experience in a community organization, agency, or

institution, which allows students to apply knowledge and learn new skills outside of the classroom environment. This course provides the academic element to the experiential course offering and reinforces the application of concepts learned 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 placement; READ 043 or appropriate placement
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 Other hours

HUSR 230A
Drug Studies Seminar
Prerequisite: HUSR 122, HUSR 124, HUSR 130
Corequisite: HUSR 230B
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
The corequisite courses HUSR 230A and 230B are designed 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 placement; READ 043 or appropriate placement
Transfers to: CSU
The corequisite courses HUSR 230A and 230B are designed 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 Photojournalism I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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. Photocomposition, printing and scanning techniques using Photoshop for the use of publication, and other computer skills related to contemporary photojournalism will also be addressed. Assignments may include work for college publications. This class is recommended for students majoring in journalism or photography. Lab hours are required in addition to scheduled lecture hours.
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course is for students interested in broadcasting for television. Students learn the principles and techniques of broadcast news with special reference to the gathering and writing of news for television, script writing, and interviewing; and the procedures and techniques of presenting the news for broadcast. This course covers law and ethics; producing news packages; live-to-tape packages; and live shots including SOT/VO, producing, and directing. Students will have the opportunity to produce the "Río News" weekly segments for the El Paisano digital newspaper.
3 Units
36 Lecture hours
54 Lab hours

JOUR 220
Advanced Reporting and Writing
Prerequisite: JOUR 120
Transfers to: CSU
This course provides students with advanced instruction in explanatory and investigative journalism, covering public affairs, police, courts, school boards, and city boards. Students study methods of preparing material intended for publication in print and online editions of newspapers. The course incorporates the study of editing principles, style, and design to meet journalism industry expectations.
3 Units
54 Lecture hours

JOUR 230
Magazine Production
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
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 placement
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: CSU
This course is for students who want to learn production and management techniques for newspaper production. Students participate in every facet of developing a newspaper for the college community by serving as staff writers, staff photographers, editors, and layout personnel. During the semester, students publish the college newspaper, El Paisano, by having weekly assignments for different sections of the paper, including News, Features, Arts and Entertainment, Opinion, Advertising and Sports. In addition, students may be tasked with taking photographs for special Focus pages. Editors are responsible for designing their sections of the newspaper on days designated by publication deadlines 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 placement; READ 043 or appropriate placement
Advisory: JOUR 241
Transfers to: CSU
This course is for students who want to learn production and management techniques of online newspaper publication. During the semester, students participate in every facet of developing and gathering the news for the online edition of El Paisano by taking on daily and weekly assignments for different sections of the newspaper, including News, Features, Arts and Entertainment, Opinion, Advertising, and Sports. In addition, students may be tasked with taking photographs for special online slide shows and developing and producing online radio podcasts, video news, and feature programs. Appointed editors distribute 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 placement; JOUR 120
Transfers to: CSU
This course is for students who want to continue to learn production and management techniques for newspaper production and earn their degree in either journalism and/or mass communications with a specialization in print media. Students write, produce, layout pages, copy edit, sell advertisements, and design pages and advertisements using InDesign, Photoshop, and other editing software for the college newspaper, El Paisano. Students also acquire production skills in formatting and file conversions for print media. Students are expected to serve in leadership roles and cover on- and off-campus news.
4 Units
36 Lecture hours
108 Lab hours

JOUR 244 (C-ID JOUR 131)
Digital Newspaper Production II
Prerequisite: JOUR 242
Transfers to: CSU
This course is for students interested in improving their journalistic skill sets, and/or furthering their journalism career in the digital realm. Students work hands on with the variety of media platforms used to publish El Paisano Online (www.elpaisanoonline.com). Students produce content for all online aspects of the digital newspaper, including podcasting, broadcasting, news segments, and writing for a mass audience while implementing the video component of all stories. At the conclusion of the course, students will have learned the concept of immediacy for online news while keeping the reader engaged.
4 Units
36 Lecture hours
108 Lab hours

JOUR 290
Cooperative Work Experience/Internship for Journalism Related Fields
Prerequisite: JOUR 120, JOUR 241, ENGL 101
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 proceduress"
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
This course is for students who are able to assume responsibility for independent work and prepare written or oral reports and/or appropriate projects. To enroll in an independent/directed study course, students must possess a 2.5 overall grade point average and a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent/directed studies may be developed from any topic that arises from or is related to a course of study that will result in developing depth and breadth in that subject area. Students are expected to meet on a regular basis with their faculty sponsor and to submit a final report or project. Student progress will be evaluated at regular intervals. Academic standards for independent/directed Studies will be the same as standards for

other courses. Units are awarded in accordance to Title 5 regulations, with one (1) unit of credit awarded for 54 hours of directed study, 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 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 placement; ENGL 035 or ENLA 100 or appropriate placement
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 placement; ENGL 035 or ENLA 100 or appropriate placement
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 110
Introduction to Fitness and Sport Management
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
Transfers to: CSU
This course is designed to introduce the concepts of fitness and sport management, and includes information needed for students who intend to explore the growing industry of administering fitness and sport programs and overseeing small businesses. The course covers areas of facility management, membership/sales, business and finance, facility oversight, equipment, and policies and procedures. In addition, the history and evolution of sport management, organizational functions, management levels, rules and compliance oversight, event management, and leadership will be included. This course is designed for the student pursuing a career in fitness and/or sport management, exploring administration and facility operations, or interested in furthering their understanding of the business of fitness and sport.
3 Units
54 Lecture hours

KIN 115
Fitness Specialist Internship
Prerequisite: Instructor approval, KIN 126, KIN 127, KIN 131
Prerequisite/Corequisite: KIN 122, KIN 128, KIN 145, KIN 146
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course will provide students with practical experience in the fields of health, fitness, and exercise instruction. Emphasis is placed on participant screening, evaluation, fitness assessment, exercise program design, nutrition and health education, and principles of exercise science. The course includes career preparation, self-marketing and social media, trainer-client relationship building, and professional responsibility in a fitness setting. This course is designed for the student pursuing a career in the fitness industry and/or a Certificate of Achievement 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 120
Sports Law and Ethics
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course explores how various bodies of substantive law are applied in the context of the sport industry—both professional and amateur. The course examines the various types of laws that apply to the sport industry (e.g., constitutional, tort, contract, labor, and antitrust) and how these laws are interpreted to decide legal claims for employment, personal injury, intellectual property, and discriminatory practices; and the legal relationships among athletes, teams, leagues, governing bodies, sports facilities, licensees, broadcasters, and fans. The course will also address the compliance issues and ethical structures that define the sports industry.
3 Units
54 Lecture hours

KIN 122
Nutrition for Sport and Fitness
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
Transfers to: CSU
This course provides an overview of the role of nutrition to increase energy and enhance performance. Nutrients such as carbohydrates, lipids, proteins, vitamins, minerals, and water will be introduced. The digestive system and metabolic systems will be discussed. Sport and exercise nutrient needs before, during, and after exercise are evaluated for their effect on optimal health and performance. Carbohydrate loading, popular diets, and supple-

mentation are discussed. This course is designed for the student pursuing a career in the fitness industry; certificates in Fitness Specialist, Coaching of Sport, Sport and Performance Coach, and Community Health Worker; and/or the A.A. in Dance and the A.S in Sports Medicine, 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 placement; READ 043 or appropriate placement; MATH 053 or appropriate placement
Transfers to: CSU
This course includes information needed for students who intend 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 students pursuing a career in the fitness industry; Fitness Specialist, Strength and Performance Coach, or Coaching of Sport Certificates; or an AS in Sports Medicine; and/or students 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
Transfers to: CSU
This course provides an overview of the body systems and their functions under conditions of exercise stress, including how fitness training affects health, wellness, and performance. Emphasis will be placed on the muscular, skeletal, cardiovascular, respiratory, endocrine, metabolic/bioenergetic, and neurological systems, as well as the physiological processes that are affected by exercise. The effects of various diseases and exercise immunology will also be addressed. This course is designed for the student pursuing a career in the fitness industry, a Certificate of Achievement in Fitness Specialist or Strength and Performance Coach, the Associate of Arts in Dance, 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement
Transfers to: CSU
This course provides an overview of how to assess and evaluate the results of cardiorespiratory endurance, muscular strength and endurance, flexibility, body fat, pulmonary function, blood pressure, postural analysis, and functional movement. Emphasis is placed on determining appropriate tests, conducting the tests, interpreting results, and creating exercise programs. This course is designed for students pursuing a career in the fitness industry or for the Fitness Specialist and Strength and Performance Coach certificates, 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 placement; READ 043 or appropriate placement; MATH 033 or MATH 033B or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 cardiovascular and respiratory conditions, exercise-induced asthma, metabolic disorders, diabetes, obesity, orthopedic injuries, physical disabilities, auto-immune issues, sensory impairments, mental challenges, geriatrics/seniors, children, pregnant and post-partum women, and the issues and challenges of exercise. This course is designed for the student pursuing a career in the fitness industry; a certificate in Fitness Specialist, Yoga Teacher Training, and Community Health Worker 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 retrievel event; Swim at American Red Cross Learn-to- Swim Level 4 Proficiency
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses)*
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 placement; ENGL 035 or ENLA 100 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses)*
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 170
Sport and Exercise Psychology
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed to improve the athletic performance of individuals and teams within the areas of sport and fitness by introducing students to psychological concepts and skills. Areas of study will include motivation theory, personality and sport, group processes, research methods, and cognitive development in sport performance. The course will examine techniques such as imagery, goal setting, cognitive restructuring, coping, and arousal regulation to help athletes and coaches achieve peak performance.
3 Units
54 Lecture hours

KIN 188
Theory and Practice of Coaching
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
The purpose of this course is to explore the impact that coaches have on athletic programs in the community. The 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, 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses. Students will receive credit for only one the following: KIN 191, KIN 192, or KIN 196.)*
This course is designed for all students who are physically active and interested in learning how to improve and maintain their personal health. Topics covered include 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 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses. Students will receive credit for only one the following: KIN 191, KIN 192, or KIN 196.)*
This course is designed for students interested in expanding their knowledge about health problems and social issues that affect women uniquely. 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 web-based as well as text readings help students develop sound health principles for use in everyday life.
3 Units
54 Lecture hours

KIN 193 (C-ID KIN 101)
Standard First Aid and CPR
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses)*
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 placement; READ 043 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed for students interested in a career in the field of coaching and athletics. Coaching methodologies and future trends in athletics, youth development in sport, and physical education/kinesiology are discussed. This course examines controversies and the status of sport culture in our society, the relationship between sport and media, social media, culture, and the economy.

Emphasis is 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses. Students will receive credit for only one the following: 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 8 units credit for PE Theory courses)*
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 placement; MATH 033 or MATH 033B or appropriate placement; READ 043 or appropriate placement;
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE Activity courses)*
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This beginning tennis class is designed to bring students to a recreational level, skills-wise. Topics include the serve, groundstroke, volley, and rules of the sport. Students also learn how to play doubles and singles matches in order to compete at a recreational level.
1 Unit
54 Lab hours

KINA 102
Intercollegiate Baseball I
Advisory: READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is designed for students interested in competing in baseball at the collegiate level. Instruction will focus on the introduction of advanced drills in the areas 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 taken once and repeated three times for credit.
1 Unit
54 Lab hours

KINA 103
Softball I
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 PE 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 placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 includes fundamental technical skills that include dribbling, passing, kicking, collecting, and basic concepts of offensive and defensive tactics. Rules of the game, skill practice, and participation in recreational soccer matches are included.
1 Unit
54 Lab hours

KINA 110
Futsal (Indoor Soccer)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This class provides instruction and repetition in the technical and tactical components of futsal (indoor soccer). The Federation of International Football Association (FIFA), the governing body of soccer in the world, and the United States Soccer Federation (USSF), 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 are introduced to the students. The course develops skills, provides knowledge of the rules, and instructs students to demonstrate futsal techniques, recognize tactical situations, and improve cardiovascular fitness.
1 Unit
54 Lab hours

KINA 113
Golf I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
Golf I is designed for the beginning golfer who wants to gain the essential skills necessary to enjoy the game of golf. Students will learn the fundamentals of a proper grip, stance and swing that will allow them to perform a basic golf swing.
1 Unit
54 Lab hours

KINA 117
Swimming I
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 022 or appropriate placement; KINA 117
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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: READ 022 or appropriate placement
Transfer to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is designed to utilize the resistance properties of water to improve muscle tone, flexibility, and cardiovascular health and endurance using various exercise movements. Because water buoyancy will help support joints and muscles, students of all levels of fitness and abilities will be able 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, or recovering from injuries—or who have been inactive—will find this class appropriate, therapeutic, and beneficial to their health.
1 Unit
54 Lab hours

KINA 134
Cardio Boot Camp
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is designed for students who want to improve their cardiovascular and core fitness levels. Students learn lifelong skills to improve their health. Workout skills such as core strengthening, cardiovascular fitness, step aerobics, and flexibility training are covered. Instruction includes proper diet, heart rate monitoring, skills proficiency, and fitness program planning.
1 Unit
54 Lab hours

KINA 136
Pilates Mat I
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 139
Cross Training for Fitness
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 an athlete's ability to be successful in intercollegiate competition. This course may be taken once and repeated three times for credit.
1 Unit
54 Lab hours

KINA 148
Strength Training
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 strength and conditioning plan.
1 Unit
54 Lab hours

KINA 151
Strength and Conditioning for Intercollegiate Athletics

Advisory: Experience in college athletics, high school varsity athletics or equivalent is recommended; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is designed for any student preparing to compete on an intercollegiate team. This is an advanced course designed for the student-athlete to improve all of their fitness levels through a variety of strength, flexibility, aerobic and anaerobic activities, and technology. The specific demands of the sport will be addressed by the intercollegiate athlete during the off-season and in-season periodization training techniques specific to each sport. The purpose of the course is for the student-athlete to understand and develop a high level of physical fitness, strength and conditioning that will enhance the athlete's ability to be successful in intercollegiate competition. This class may be taken once for credit and repeated three times.
1 Unit
54 Lab hours

KINA 158
Yoga I

Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
Transfer to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 Athletics
Advisory: READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This cross-training course is designed for advanced intercollegiate athletes who want to increase all aspects of their fitness levels through a variety of strength, flexibility, aerobic and anaerobic activities in order to prepare for intercollegiate athletic competition. The specific physical fitness routines required by intercollegiate athletes during the off-season will be addressed. The purpose of the course is to develop levels of physical fitness, strength, and conditioning that will enhance athletes' abilities to be successful in intercollegiate competition. This course may be taken once and repeated two times for credit.
1 Unit
54 Lab hours

KINA 170
Women's Intercollegiate Basketball Team

Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students who will be competing in the sport of women's basketball at the collegiate level. 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 taken once and repeated three times for credit.
1.5 Units
81 Lab hours

KINA 171
Women's Intercollegiate Tennis Team

Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed to prepare students for intercollegiate competition in the sport of women's tennis. Emphasis will be placed on all aspects of the sport and the academic requirements for transfer and maintaining eligibility. Students will be monitored and encouraged to advance in their academic and athletic skills through the course. This course may be taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 172
Women's Intercollegiate Volleyball Team

Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This is an advanced course 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. This course may be taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 173
Women's Intercollegiate Softball Team

Advisory: READ 043 or appropriate placement; High School or Club team experience recommended.
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 176
Women's Intercollegiate Soccer Team

Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This is an advanced course designed to prepare athletes for intercollegiate competition in soccer. Emphasis will be placed on all aspects of the sport as well as the academic requirements for transfer and maintaining eligibility. The student-athletes will be monitored and encouraged to advance in their academic and athletic skills through the course. 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 placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students who will be compet-

ing in the sport of men's baseball at the collegiate level. Students will be required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 181
Men's Intercollegiate Basketball Team
Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students who will be competing at the collegiate level in the sport of men's basketball for pre-season conditioning and play. The course is offered for 11 consecutive weeks to run concurrently 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 taken once and repeated three times for credit.
1.5 Units
81 Lab hours

KINA 185
Men's and Women's Intercollegiate Swim Team
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students who will be competing at the collegiate level in the sport of men's and women's swimming. Students are required to spend a minimum of 10.125 hours per week preparing for competition with other colleges. The course may be taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 188
Men's and/or Women's Intercollegiate Water Polo Team
Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 189
Men's Intercollegiate Wrestling Team
Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 190
Men's Intercollegiate Soccer Team
Advisory: READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This is an advanced course designed to prepare athletes for intercollegiate competition in soccer. Emphasis will be placed on all aspects of the sport as well as the academic requirements for transfer and maintaining eligibility. The student-athletes will be monitored and encouraged to advance in their academic and athletic skills through the course. 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 placement; READ 022 or appropriate placement; High School or Club team experience recommended
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 are required to spend a minimum of 10.125 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.
3 Units
162 Lab hours

KINA 201
Tennis II
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 022 or appropriate placement; KINA 101
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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
Prerequisite: Participation in Intercollegiate Athletics
Advisory: READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students interested in competing in the sport of men's baseball at the collegiate level. Instruction will focus on advanced drills in the areas of offense, defense, and pitching. Special attention will be placed on preparing students for intercollegiate competition. This course may be taken once and 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 PE 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 placement; READ 043 or appropriate placement; KINA 104
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 develop the intermediate skills of setting, serving, passing, spiking, team offense of 6-1, team offense of 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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: KINA 172 or participation in Intercollegiate Athletics
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students interested in competing at the collegiate level in the sport of women's volleyball. Instruction will focus on advanced techniques in serving, passing, setting, and hitting; as well as jump serving, jump setting, jump attacking, various defensive patterns, and team play training and conditioning. Special attention will be placed on preparing students for intercollegiate competition. This course may be taken once and 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 placement; READ 022 or appropriate placement;
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced soccer activity course is designed for all students interested in developing the physical, technical, and tactical elements of the game of soccer. The course includes analysis of fundamental skills, game strategy, team offense, and team defense through participation and an overview of rules. The advanced course is intended to take students beyond recreational skills. Emphasis is placed on team tactics, strategies, and systems of play.
1 Unit
54 Lab hours

KINA 210
Futsal (Indoor Soccer) II
Advisory: KINA 110
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced/intermediate futsal activity class is designed for all students interested in developing the physical, technical speed and elements of the game of futsal. The course will include game strategy, analysis of fundamental skills, offensive and defensive tactics through small group numbers. Strategies and transitional play will be emphasized.
1 Unit
54 Lab hours

KINA 211
Off Season Intercollegiate Tennis
Prerequisite: Participation in Intercollegiate Athletics
Advisory: READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students interested in competing in the sport of tennis 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 taken once and 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 placement; KINA 117
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE 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 230
Lifelong Fitness Center II - Cardiovascular Fitness
Prerequisite: KINA 130
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 033 or appropriate placement
Transfers to: UC (credit limit), CSU (*The UC will grant a maximum of 4 units credit for PE activity courses)*
This course is 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 placement; READ 043 or appropriate placement
Transfer to: UC (credit limit), CSU*
*(*The UC will grant a maximum of 4 units credit for PE activity courses)*
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, Prasarita Padottanasana, Malasana, Garudasana, Natasajasana, Utthita Hasta Padangustasana, Chaturanga Dandasana, Purvottanasana, Navasana, Virasana, Ustrasana, Matsyasana, Sarvangasana, Suryya 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 placement
Transfers to: UC (credit limit), CSU*
*(*The UC will grant a maximum of 4 units credit for PE activity courses)*
This advanced course is designed for students who will be competing in the sport of women's basketball at the collegiate level 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 taken once and repeated three times for credit.
1.5 Units
81 Lab hours

KINA 276
Off-Season for Intercollegiate Soccer
Advisory: KINA 176 or competitive organized soccer experience (club or high school varsity), READ 022 or appropriate placement
Transfers to: CSU
This advanced soccer/activity class for the intercollegiate level player will stress soccer training, technical skills, knowledge, strategy, and an understanding of team play. The course is intended for students with varsity intercollegiate experience who compete currently or are preparing to play competitive intercollegiate soccer. This course may be taken once and repeated three times for credit.
1 Units
54 Lab hours

KINA 281
Men's Intercollegiate Basketball Team II
Prerequisite: KINA 181
Advisory: READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*The UC will grant a maximum of 4 units credit for PE activity courses)*
This 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 taken once and 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 Río 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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
Research Skills and Information Intelligence
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; CIT 051
Transfers to: UC, CSU
This course promotes information literacy by introducing students to the resources available in an academic library, which includes books, online catalogs, subscription databases, and other online sources. Students learn how to identify and focus on an information need, apply appropriate search tools, analyze, and evaluate information and search strategies, and use information ethically and legally. Students will also be introduced to basic internet components, online applications, and productivity tools. 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 placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 through 1865
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 through 1865 Honors

Prerequisite: ENGL 101; READ 043 or appropriate placement
Corequisite: ENGL 101 for new students
Transfers to: UC (credit limit), 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 after 1865

Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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, David Henry 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 after 1865 Honors

Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), 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, David Henry 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 114 or LIT 114H)*
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 periods 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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 114 or LIT 114H)*
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 periods 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 117 or LIT 117H)*
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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 117 or LIT 117H)*
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 130 or LIT 130H)*
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, the evolution of technique, the effects of race and class, and the historical and cultural 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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 130 or LIT 130H)*
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, the evolution of technique, the effects of race and class, and the historical and cultural 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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement
Advisory: READ 043 or appropriate placement
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 142 or LIT 142H)*
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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 142 or LIT 142H)*
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: CSU
This one-unit course is designed for students who wish to study the literary works of one author in depth. Students 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 placement
Transfers to: CSU
This one-unit course is designed for students who wish to study the literary works of one author in depth. Students 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. This course is designed for students eligible for the Honors Program.
1 Unit
18 Lecture hours

LIT 144A (C-ID ENGL 140)
World Literature: Antiquity through the 16th Century
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
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: 16th Century to Present
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 through 1785
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: LIT 146A or LIT 146AH)*
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 through 1785 Honors
Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: LIT 146A or LIT 146AH)*
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 after 1785
Prerequisite: ENGL 035 or ENLA 100 or appropriate placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: LIT 146B or LIT 146BH)*
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 after 1785 Honors
Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 146B or LIT 146BH)*
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 placement
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 147 or LIT 147H)*
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 147H
Cinema as Literature Honors
Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: LIT 147 or LIT 147H)*
This course is for students interested in learning about the aesthetics of filmmaking, 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 filmmaking will be covered. This course is designed for students eligible for the honors program.
3 Units
54 Lecture hours

LIT 148
Introduction to Dramatic Literature
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 reflectionof 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/o/x Literature
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course explores a range of Chicana/o/x 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 comprise a variety of forms and genres including essays, poetry, fiction, oral histories, corridos, and autobiography by writers from the Southwest. This course is designed for students interested in exploring various forms genres of literature, learning more about Chicana/o/x cultural expression, and/or majoring in Chicana/o/x 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 and 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 5 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; CIT 051
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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement; CIT 051; LOG 101; ECON 101; ECON 102
Transfers to: CSU
This course is intended for students seeking a career in logistics or supply chain management. This course explores the basic purchasing functions 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 placement; READ 043 or appropriate placement; MATH 053 or MATH 053B or appropriate placement; CIT 051; LOG 101; ECON 101
Transfers to: CSU
This course is intended for students seeking a career in logistics or supply chain management. The course provides warehouse managers, supervisors, distribution center leaders, and warehouse personnel with a pathway to gain and apply practical skills in warehouse design, layout planning, the safe storage of inventory, identifying appropriate material handling equipment, and quality control of warehouse services. Topics include industry terminology, modern warehouse management system tools, industry quality standards, and warehouse contracting.
3 Units
54 Lecture hours

LOG 115
Inventory Management
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 053 or MATH 053B appropriate placement; CIT 051; LOG 101; ACCT 100
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. Students 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; CIT 051; 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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; CIT 051; LOG 101
Transfers to: CSU
This course is an introduction to computer technology as it applies to the business management environment. The course prepares 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, and web-based, hands-on modules prepare students to become proficient in Microsoft Word, Excel, and PowerPoint.
2 Units
36 Lecture hours

LOG 130
Computerized Logistics
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; CIT 051; LOG 115
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 placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement; CIT 051; LOG 105
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 Baldridge award criteria, and an introduction to statistical process control.
3 Units
54 Lecture hours

MANAGEMENT

Division of Business

MGMT 101 (C-ID BUS 110)
Introduction to Business
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; MATH 050 or MATH 050D or MATH 053 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; MGMT 101
Transfers to: CSU
This course is an introduction to computer technology as it applies to the business management environment. The course prepares 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, and web-based, hands-on modules prepare students to become proficient in Microsoft Word, Excel, and PowerPoint.
3 Units
54 Lecture hours

MGMT 130
Small Business Management-Entrepreneurship
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 022 or appropriate placement; 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 208 (C-ID BUS 115)
Business Communications
Prerequisite: ENGL 101
Transfers to: CSU
This course covers the principles of effective writing in business. The course provides extensive experience using the different forms of business writing: memorandums, letters, reports, and resumes. Cultural differences and their impact on communicating in business are 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 placement; READ 043 or appropriate placement
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 and 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 5 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
Principles of Marketing
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement; MGMT 101
Transfers to: CSU
This class investigates and analyzes the reasons consumers select, purchase, use, and dispose of goods and services to satisfy their personal and household needs. Topics include consumer culture, group influence, consumption patterns, and consumer attitudes and lifestyles. This class is appropriate for marketing majors 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 placement; MGMT 101
Transfers to: CSU
This course introduces students to the creative and competitive field of advertising and promotion. Topics include 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 marketing majors 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement; MGMT 101
Transfers to: CSU
This class provides useful and effective marketing and advertising tools and techniques to 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 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 placement; READ 043 or appropriate placement; 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 placement; READ 022 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: MSCM 103 or MSCM 128)*
This course provides an overview of the history, theory, and aesthetic principles of radio, television, and motion pictures, and examines their social impacts and effects on society. The changing nature of consumer information is explored, along with the evolution of these three mediums in the traditional and non-traditional aspects of listening, writing, and viewing. The social, political, regulatory, ethical, and occupational impacts of the electronic media are also studied.
3 Units
54 Lecture hours

MSCM 128 (C-ID JOUR 100)
Mass Media in Modern Society
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement; READ 022 or appropriate placement
Transfers to: UC, CSU
This course serves as an introduction to documentary film. It provides an overview of key historical and critical concepts regarding film, including vocabulary for storyboard and scene analysis. Students analyze films in relation to mise-en-scene, editing, sound, narrative, cinematography, screenplay, and meaning.
3 Units
54 Lecture hours

MATHEMATICS

Division of Mathematics, Sciences, and Engineering

MATH 003
Mathematics Acceleration
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course surveys a variety of mathematical topics needed to help students thrive in college-level mathematics courses. It is a partially software-based study program which uses an online learning system to permit focused whole-class instruction, and may also involve individualized and/or small group instruction as needed. The course reviews selected topics from the Common Core State Standards domains of Number and Quantity, Algebra, Geometry, Statistics and Probability, Functions, and Modeling, and emphasizes material that must be mastered for success in college-level mathematics courses. This is a non-degree applicable course offered on a pass-no pass basis.
1 Unit
18 Lecture hours

MATH 013E
Essential Topics for Statistics
Corequisite: MATH 130
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This support course is designed to develop the mathematical knowledge and study skills necessary for successful completion of Math 15: Quantitative Reasoning in Today's World. Topics from intermediate algebra and geometry are covered to build a foun-

dation for college-level quantitative reasoning. Strategic reading, critical thinking and problem-solving are incorporated to build the strategies needed to solve contextualized problems. Topics in the area of study skills and metacognition are also included to support students in a college-level math course. This is a non-degree applicable course offered on a pass-no pass basis.
1 Unit
18 Lecture hours

MATH 015E
Essential Topics for Quantitative Reasoning in Today's World
Corequisite: MATH 150
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This support course is designed to develop the mathematical knowledge and study skills necessary for successful completion of Math 150: Quantitative Reasoning in Today's World. Topics from intermediate algebra and geometry are covered to build a foundation for college-level quantitative reasoning. Strategic reading, critical thinking and problem-solving are incorporated to build the strategies needed to solve contextualized problems. Topics in the area of study skills and metacognition are also included to support students in a college-level math course. This is a non-degree applicable course offered on a pass-no pass basis.
1 Unit
18 Lecture hours

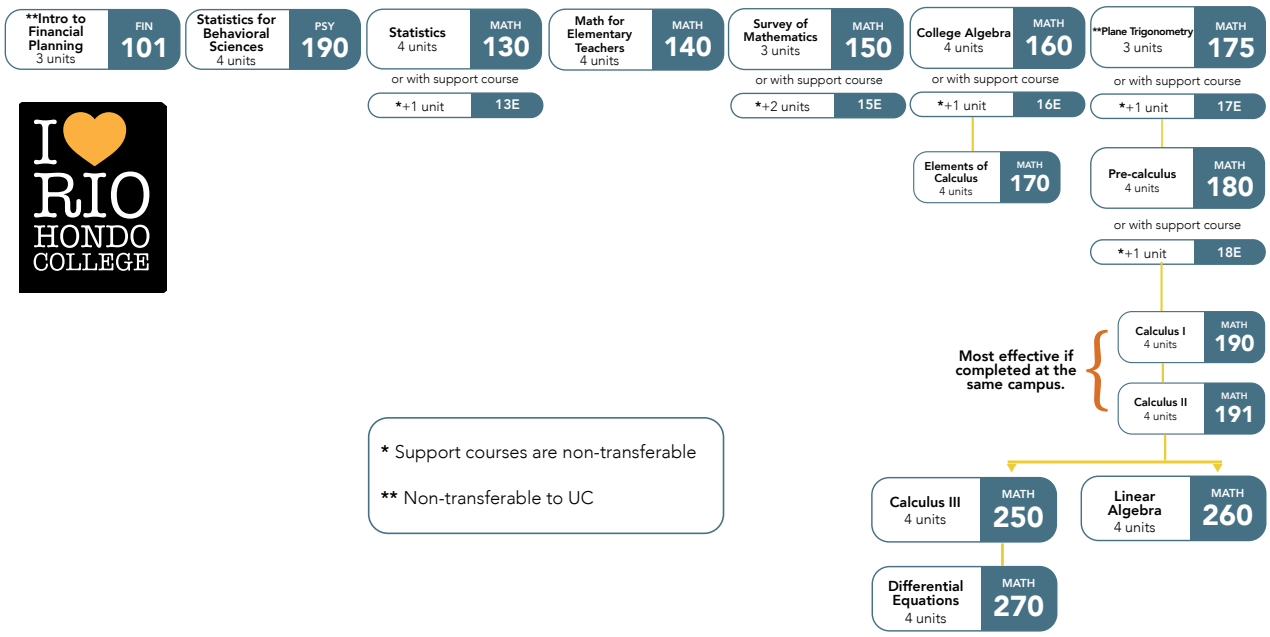
MATH 016E
Essential Topics for College Algebra
Corequisite: MATH 160
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This support course is designed to develop the mathematical knowledge and study skills necessary for successful completion of Math 160: College Algebra. Students must be concurrently enrolled in a College Algebra course to take this support course. Topics from intermediate algebra are covered to build a foundation for success in college-level algebra. Strategic reading, critical thinking, and problem-solving are incorporated to build the strategies needed to solve contextualized problems. Topics in the area of study skills and metacognition are also included to support students in a college-level math course. This is a non-degree applicable course offered on a pass-no pass basis.
1 Unit
18 Lecture hours

MATH 017E
Essential Topics for Plane Trigonometry
Corequisite: MATH 175
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This support course is designed to develop the mathematical knowledge and study skills necessary for successful completion of Math 175: Plane Trigonometry. Students must be concurrently enrolled in a trigonometry course to take this support course. Topics from intermediate algebra are covered. Strategic reading, critical thinking and problem-solving are incorporated to build the strategies needed to solve contextualized problems. Topics in the area of study skills and metacognition are also included to support students in a college-level math course. This is a non-degree applicable course offered on a pass-no pass basis.
1 Unit
18 Lecture hours

MATH 018E
Essential Topics for Pre-Calculus
Corequisite: MATH 180
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This support course is designed to develop the mathematical knowl-

MATH PATHWAYS

IMPORTANT – Consult with a counselor before choosing a path. The math course selected will be determined by your college major.



It is essential for students to consult with a counselor on what classes to take at Rio Hondo College.
If you have any questions or concerns, please visit the First Year Success in LR101 (Learning Resource Center) or by calling (562) 908-3410.

Please see a Counselor if you took the Advance Placement (AP) exam and your score was 3, 4, or 5 or took a college class at another college. Please request transcripts from College Board to be mailed to Rio Hondo College Admissions and Records Office.

edge and study skills necessary for successful completion of pre-calculus (Math 180). Students must be concurrently enrolled in a section of MATH 180 to take this support course. Topics from intermediate algebra and trigonometry are covered to build a foundation for college-level quantitative reasoning. Strategic reading, critical thinking and problem-solving are incorporated to build the strategies needed to solve contextualized problems. Topics in the area of study skills are also included to support students in a college-level math course. This is a non-degree applicable course offered on a pass-no pass basis.
1 Unit
18 Lecture hours

MATH 033
Mathematical Foundations
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
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 049
Introduction to MESA
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 053
B-STEM Elementary Algebra
Prerequisite: MATH 030 or MATH 030D or MATH 033 or appropriate placement
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement
Advisory: ENGL 030 or ENLA 024 or appropriate placement; READ 043 or appropriate placement
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 053 or MATH 053B or appropriate placement
Advisory· ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course surveys a variety of mathematical topics 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 associations of two variables graphically, graphing equations of lines and linear models, and solving linear equations and inequalities. The course is for students in liberal arts, humanities, and social sciences majors. It should not be taken by students majoring in science, technology, engineering, math, or business.
5 Units
90 Lecture hours

MATH 070
Intermediate Algebra
Prerequisite: MATH 050 or MATH 050D or MATH 053 or appropriate placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 070AB
Intermediate Algebra: Part I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course is the first half of a modularized version of MATH 070. 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 transferable course that requires the skills obtained in intermediate algebra. This course consists of topics including real numbers, linear equations and inequalities, system of linear equations and inequalities,polynomials and factoring. Students must pass MATH 070AB in order to register for MATH 070CD
2 Units
45 Lecture hours

MATH 070CD
Intermediate Algebra: Part II
Prerequisite: MATH 070AB
This is the second half of a modularized version of the MATH 070. 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 transferable course that requires the skills obtained in intermediate algebra. It covers rational expressions, radical expressions and complex numbers, quadratic equations and inequalities, functions, exponential and logarithmic functions. Students must pass MATH 070AB in order to register for MATH 070CD.
2 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 placement
Advisory: ENGL 101 or appropriate placement; READ 101 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*The UC will grant credit for only one of the following courses: MATH 130 or MATH 130H or PSY 190)*
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 placement; Minimum GPA of 3.0; ENGL 101
Advisory: READ 101 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*The UC will grant credit for only one of the following courses: MATH 130 or MATH 130H or PSY 190)*
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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is designed to deepen and extend the student's understanding 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
90 Lecture hours

MATH 150
Survey of Mathematics
Prerequisite: MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
In this course students will learn to read and understand quantitative information, solve practical problems, and make sound decisions using numbers. Topics include consumer applications, logic, probability, statistics, algebra, and geometry. This course is for students who need a quantitative reasoning course for graduation or transfer.
3 Units
54 Lecture hours

MATH 160 (C-ID MATH 150)
College Algebra
Prerequisite: MATH 070 or MATH 070D or MATH 073 or MATH 073B or appropriate placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive a maximum of 5 units for MATH 160 and 180 combined)*
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 placement
Advisory: ENGL 101; READ 101
Transfers to: UC (credit limit), 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is for students majoring in mathematics, science, and engineering. The course equips students with the skills necessary for success in precalculus, presenting the concepts of plane trigonometry using a functions approach. The course also includes a study of trigonometric functions including their inverses and 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 101 or appropriate placement.
Transfers to: UC (credit limit), CSU (*Students will receive a maximum of 5 units for MATH 160 and 180 combined)*
This course is designed to prepare students for the study of calculus. The course presents a comprehensive study of linear, quadratic, polynomial, exponential, logarithmic, rational, and trigonometric functions. Inequalities, introductory analytic geometry, polar coordinates, polar equations and their graphs, 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
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 101 or appropriate placement
Transfers to: UC (credit limit), 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; ENGL 101
Advisory: READ 101 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 101 or appropriate placement
Transfers to: UC, CSU
This semester-long course 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 all 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 placement; READ 101 or appropriate placement
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 and 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 5 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 placement; READ 043 or appropriate placement
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 (C-ID MUS 120)
Music Theory I
Corequisite: MUS 106
Advisory: READ 043 or appropriate placement
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 (C-ID MUS 130)
Music Theory II
Prerequisite: MUS 103
Corequisite: MUS 107
Advisory: READ 043 or appropriate placement
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 (C-ID MUS 140)
Music Theory III
Prerequisite: MUS 104
Corequisite: MUS 156
Advisory: READ 043 or appropriate placement
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 placement
Transfers to: UC, CSU
This course is designed for the student who wants to develop beginning aural skills, sight-reading, sightsinging, 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
54 Lab hours

MUS 107 (C-ID MUS 135)
Musicianship II
Prerequisite: MUS 106
Corequisite: MUS 104
Advisory: READ 043 or appropriate placement
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
54 Lab 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 and 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 116
Diverse Instruments Ensemble
Prerequisite: Successful audition with instructor approval required prior to enrollment to demonstrate proficiency of entry skills.
Advisory: MUS 101
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. This course may be taken for credit up to four times for a total of 4 units.
1 Unit
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 further and to 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
Prerequisite: Successful audition with instructor approval required prior to enrollment to demonstrate proficiency of entry skills.
Advisory: READ 043 or appropriate placement
Transfers to: UC, CSU
This course is designed for the student who seeks the needed skills to study, rehearse, and perform literature within a large vocal ensemble.

Participation in public performance is required. The repertoire will include a diversity of selections including classical choral literature, world music, popular and contemporar music. Previous choral experience is not required. This course may be taken for credit up to four times for a total of 4 units.
1 Unit
54 Lab hours

MUS 129
Music in Latin American Culture
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students who seek an introduction to the major composers and musical movements from antiquity to the 1700s. The course focuses on learning, reasoning, and writing about the music of 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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students who seek an introduction to the major composers and musical movements from 1750 to the present. The course focuses on learning, reasoning, and writing about the music of 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; MUS 120
Transfers to: UC, 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement
Transfers to: UC, CSU
This advanced-level course is for students who seek to broaden their choral repertoire by performing major choral works from various musical periods accompanied by orchestra or other instrumental ensemble. Attention is given to the refinement and polishing of choral vocal technique. Public performance is required. Enrollment criteria requires an audition.
2 Units
27 Lecture hours
27 Lab hours

MUS 140
Beginning Voice I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students who wish to learn the foundations of singing, including proper posture, breath support, healthy vocal fold vibration, optimal resonance, articulation, diction, and stage presence. Students are given appropriate repertoire from the standard vocal literature throughout the semester. 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 placement; READ 043 or appropriate placement
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
Transfers to: UC, CSU
This course is for students who wish to further develop the voice and technique acquired in MUS 140 (Beginning Voice I) through more advanced vocal exercises and repertoire. A comprehensive study of style and interpretation is included.
1.5 Units
18 Lecture hours
27 Lab hours

MUS 145 (C-ID MUS 170)
Piano I
Advisory: READ 043 or appropriate placement
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 (C-ID MUS 171)
Piano II
Prerequisite: MUS 145
Advisory: READ 043 or appropriate placement
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. This course is a continuation of materials learned in Piano I.
1 Unit
18 Lecture hours

MUS 147 (C-ID MUS 172)
Piano III
Prerequisite: MUS 146
Advisory: READ 043 or appropriate placement
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 placement
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: READ 043 or appropriate placement
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: READ 043 or appropriate placement
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
27 Lecture hours

MUS 156 (C-ID MUS 145)
Musicianship III
Prerequisite: MUS 107
Corequisite: MUS 105
Advisory: READ 043 or appropriate placement
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
54 Lab hours

MUS 157 (C-ID MUS 155)
Musicianship IV
Prerequisite: MUS 156
Corequisite: MUS 206
Advisory: READ 043 or appropriate placement
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
54 Lab hours

MUS 158
Masterworks Chorale II
Prerequisite: MUS 138 and Audition
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 (Masterworks Chorale) and an audition.
2 Units
27 Lecture hours
27 Lab hours

MUS 178
Masterworks Chorale III
Prerequisite: MUS 158 and Audition
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 like Bach's sacred and secular cantatas, masses by Mozart and Haydn, 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 (Masterworks Chorale) and an audition.
2 Units
27 Lecture hours
27 Lab hours

MUS 181 (C-ID MUS 160)
Applied Music
Prerequisite: Audition
Corequisite: Enrollment in a Río 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 placement; READ 043 or appropriate placement
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 (C-ID MUS 150)
Music Theory IV
Prerequisite: MUS 105
Corequisite: MUS 157
Advisory: READ 043 or appropriate placement
Transfers to: UC, 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 211
Composition Workshop I
Prerequisite: MUS 104
Advisory: READ 043 or appropriate placement
Transfers to: CSU
This beginner-level course is for students who want to develop vocal and instrumental compositional skills through analysis and creative writing in a workshop setting. The course includes the basic elements and tools of musical composition, including rhythm, melody, harmony, and counterpoint; and musical structure and form. Students are assigned composition exercises, describe and discuss their work with the class, and work on a final composition project.
3 Units
54 Lecture hours

MUS 212
Composition Workshop II
Prerequisite: MUS 211
Advisory: READ 043 or appropriate placement; MUS 105, MUS 206
Transfers to: CSU
This intermediate-level course is for students who want to further develop vocal and instrumental compositional skills through analysis and creative writing in a workshop setting. The course includes elements and tools of musical composition, including late 19th- and 20th-century harmony, the study of musical forms, analysis, guided listening, and discussion of examples from the repertoire. Students are assigned composition exercises, describe, describe and discuss their work with the class, and work on building a composition portfolio.
3 Units
54 Lecture hours

MUS 216 (C-ID MUS 185)
Industrial Orchestra
Prerequisite: Successful audition with instructor approval required prior to enrollment to demonstrate proficiency of entry skills
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. Río Hondo composition students may also arrange and compose for this performance group. This course may be taken for credit up to four times for a total of 8 units.
2 Units
27 Lecture hours
27 Lab hours

MUS 220
Concert Choir II
Prerequisite: MUS 120
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 043 or appropriate placement
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 (C-ID MUS 180)
Advanced Chamber Singers
Prerequisite: MUS 134
Advisory: READ 043 or appropriate placement
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
Transfers to: UC, CSU
This course is for students interested in further developing the vocal technique, musical interpretation, and performance skills appropriate for advanced vocal performance. Attention is given to details including specific vowels, clarity of tone, 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
36 Lecture hours

MUS 251
Advanced Guitar I
Prerequisite: MUS 151
Advisory: READ 043 or appropriate placement
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: READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 and 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 5 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 (C-ID CMUS 100X)
Introduction to Music Technology
Advisory: READ 043 or appropriate placement
Transfers to: CSU
This course is designed for the student who wants to learn the terminology, equipment, techniques, and concepts of music technology. Focus will be on principles and practices of sound, digital audio, synthesis, Musical Instrument Digital Interface (MIDI), MIDI sequencing, notation software, and audio recording utilizing hardware and software platforms. 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 demonstrating hands-on knowledge.
3 Units
36 Lecture hours
54 Lab hours

MUST 105
Introduction to the Music Business
Advisory: READ 043 or appropriate placement; ENGL 035 or ENLA 100 or appropriate placement
Transfers to: CSU
This class is intended for students interested in the music business. It presents an overview of the business and legal aspects of the music industry in order to understand the rapid and massive changes due to the revolution of music on the Web. The focus will be on career possibilities, the development of business-related knowledge and skills necessary for effectively maintaining a professional music career, the vocabulary and terminology of the music industry, and the distinction between music and business at the corporate level. Topics include record contracts, publishing, licensing, distribution, and copyright. In addition, the duties and responsibilities of musicians, songwriters, lawyers, agents, promoters, publishers, executives, and managers—anyone trying to navigate the rapid transformation of the industry will be examined.
3 Units
54 Lecture hours

MUST 115 (C-ID CMUS 150X)
Songwriting and Arranging I
Prerequisite: MUS 103 and MUST 101
Advisory: READ 043 or appropriate placement
Transfers to: CSU, UC
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 placement
Transfers to: CSU, UC
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 (C-ID CMUS 110X)
Electronic Music I
Prerequisite: MUST 101
Advisory: READ 043 or appropriate placement
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 placement
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 placement
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 125
Sound Design I
Prerequisite: MUST 121, MUST 141
Advisory: READ 043 or appropriate placement
Transfers to: CSU
This course is for students interested in learning the basics of sound design. It will introduce the physics of sound and how to successfully manipulate, modulate, and record sound in the service of various music and media industries (e.g., the music, television/film, and video game industries). Assignments will be project based.
3 Units
36 Lecture hours
54 Lab hours

MUST 126
Sound Design II
Prerequisite: MUST 122, MUST 125, MUST 142
Advisory: READ 043 or appropriate placement
Transfers to: CSU
This course is for students interested in learning advanced techniques and theory of sound design. The course will introduce acoustics, the psychoacoustics of sound and how to successfully program complex systems in order to synthesize and sculpt, and sound in the service of various music and media industries (e.g., the music, television/film, and video game industries). Assignments will be project based.
3 Units
36 Lecture hours
54 Lab hours

MUST 141 (C-ID CMUS 130X)
Recording Studio I
Prerequisite: MUST 101
Advisory: READ 043 or appropriate placement
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 placement
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 (C-ID CMUS 120X)
Live Sound Reinforcement I
Prerequisite: MUST 101
Advisory: READ 043 or appropriate placement
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 placement
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 musicians, 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 placement; ENGL 030 or ENLA 034 or appropriate placement
Transfers to: CSU, UC
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

MUST 191A
Music and Integrated Technology Capstone - Recording
Prerequisite: MUST 141
Advisory: MUST 142; READ 043 or appropriate placement
Transfers to: CSU
This course is for students in the Music and Integrated Technology program to learn hands-on skills. The course focuses on collaborative projects, with students performing the professional roles of recording engineers and assistant engineers, and will prepare students for the highly collaborative music and media industries. Additionally, the course will help students build a professional portfolio with which to apply for entry-level jobs.
2 Units
108 Lab hours

MUST 191B
Music and Integrated Technology Capstone - Production
Prerequisite: MUST 121, MUST 141
Advisory: MUST 142; READ 043 or appropriate placement
Transfers to: CSU
This course is for students in the Music and Integrated Technology program to learn hands-on skills. The course focuses on collaborative projects, with students performing the professional role of music producer, and will prepare students for the highly collaborative music and media industries. Additionally, the course will help students build a professional portfolio with which to apply for entry-level jobs.
2 Units
108 Lab hours

NUTRITION SCIENCE

Division of Health Science & Nursing

NUTR 110 (C-ID NUTR 110)
Introduction to Nutrition Science
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID NUTR 120)
Principles of Foods with Lab
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
This course is designed to meet the needs of State Indentured Apprentices 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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or

MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 022 or appropriate placement; MATH 020 or MATH 020C or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 bours

PHILOSOPHY

Division of Behavioral & Social Sciences

PHIL 101 (C-ID PHIL 100)
Introduction to Philosophy
Advisory: ENGL 101 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 101 or PHIL 101H)*
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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 101 or PHIL 101H)*
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
Advisory: READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 110 or*

PHIL 110H)
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 placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 110 or PHIL 110H)*
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 placement; READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 112 or PHIL 112H)*
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 (C-ID PHIL 110)
Introduction to Logic Honors
Prerequisite: ENGL 101
Advisory: READ 043 or appropriate placement; MATH 030 or MATH 030D or MATH 033 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 112 or PHIL 112H)*
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 placement; PHIL 101 or PHIL 101H; PHIL 112 or PHIL 112H
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; READ 043 or appropriate placement
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; READ 043 or appropriate placement
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; READ 043 or appropriate placement
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; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU (*Students will receive credit for only one of the following courses: PHIL 128 or PHIL 128H)*
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 placement
Transfers to: UC (credit limit), CSU*

*(*Students will receive credit for only one of the following courses: PHIL 128 or PHIL 128H)*
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; READ 043 or appropriate placement
Transfers to: UC, CSU
This introductory course explores the philosophical aspects of a variety of issues of contemporary interest, with an emphasis on social and legal issues. Topics may include, but are not limited to: war/terrorism, euthanasia, philosophical issues pertaining to race/ethnicity/gender/disability, rights and social justice, and the criminal justice/legal system. This course is intended for all students interested in applying methods of philosophy to contemporary topics, for pathway to law (pre-law) students, and for majors in philosophy or political science.
3 Units
54 Lecture hours

PHIL 140
Philosophy of Religion
Advisory: ENGL 101; READ 043 or appropriate placement
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 and 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 5 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 110 or PHIL 110H 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 130
Beginning Photography
(Formerly PHTO 190)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; ART 120
Transfers to: UC, CSU
This course is designed for students who want 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 185
Introduction to Digital Photography
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, 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 191
Intermediate Photography
Prerequisite: PHTO 190
Advisory: READ 043 or appropriate placement
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 230
Medium and Large Format Photography (Formerly PHTO 290)
Prerequisite: PHTO 185, PHTO 190
Advisory: ENGL 035 or ENLA 100, READ 043 or appropriate placement
Transfers to: CSU
This course is for students who have completed beginning analog and digital photography courses successfully and seek to study more advanced technical and conceptual approaches to photography using medium and large format cameras. The course is designed as a hybrid course that combines analog and digital techniques into one workflow. Special emphasis is given to the understanding and analysis of photographic imagery and portfolio development.
3 Units
36 Lecture hours
72 Lab hours

PHTO 292
Intermediate Digital Photography
Prerequisite: PHTO 185
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is designed for students who have successfully completed PHTO 185 and have a working knowledge of basic camera control and photographic composition. It will cover use of digital cameras, metadata, workflow organization, global and local image editing and manipulation, color theory, and basic lighting techniques using flash and strobe. Emphasis will be placed on using photography as a means of communication and personal expression. Students are required to supply their own DSLR or mirrorless cameras capable of shooting in RAW file format.
3 Units
36 Lecture hours
72 Lab hours

PHTO 299
Directed Study: Photography
Prerequisite: PHTO 130, PHTO 185
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an opportunity for photography students to prepare and develop a portfolio project centered on a conceptual, technical, or visual theme. The theme of the portfolio project will be arranged by agreement between the instructor and students, who must submit a proposal to the instructor as part of this agreement. Students are required to contract with the instructor to determine the scope of the assignment and the unit value assigned for successful completion, and the instructor will monitor students' progress regularly throughout the semester. Students must possess a 2.5 overall GPA and a 3.0 GPA in the discipline of study being requested, or receive an exception from the instructor. 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 (credit limit), 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement ; MATH 250
Transfers to: UC (credit limit), 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 : PHY 211
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 020
Physical Fitness
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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.
0.037 to 0.741 Units
2 to 40 Lab hours

PAC 021
Firearms
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; PAC 040
This course is designed to keep peace officers informed of new firearms techniques and equipment, 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.
0.037 to 0.741 Units
2 to 40 Lab hours

PAC 022
First Aid/CPR
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 023
Field Training Officer Course
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 024
Weapons, Semi-Automatic Handguns
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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 M7P 9, M&P 9L, M&P 40L and M&P 45, Glock Models: 17, 21, 22, 34, and 35, Springfield Armory XD, or XDM, Beretta Models 92F and FS, Browning Hi-Power 9 millimeters, plus other uniform and off-duty semiautomatic pistols.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 025
PC 832 Arrest
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 026
PC 832 Firearms
Prerequisite: PAC 025; 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 certifica-

tion 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 placement; READ 043 or appropriate placement
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.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

PAC 027
PC 832 Communications and Arrest Methods
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; PAC 025
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.
0.148 to 2.962 Units
2 to 40 Lecture hours
2 to 40 Lab hours

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 placement; READ 043 or appropriate placement
This is a fundamental course that covers criminal law, evidence, procedure and investigation, firearms, first aid, defense tactics, use of chemical agents, and other police-related subjects. This course meets the educational requirement for basic certification by the Commission on Peace Officer Standards and Training (POST).
46 Units
774 Lecture hours
162 Lab hours

PAC 042
Police Supervision
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; 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).
46 Units
774 Lecture Hours
162 Lab hours

PAC 043
Advanced Officers Course
Advisory: ENGL 035 or ENLA 100 or appropriate placement; 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.
0.148 to 2.962 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 placement; READ 043 or appropriate placement; 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 placement; READ 043 or appropriate placement
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.
7 Units
99 Lecture hours
81 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 placement; READ 043 or appropriate placement
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 and can be used as a prerequisite for the PAC 075D Module I course.
8.5 Units
117 Lecture hours
108 Lab hours

PAC 075D
Basic Course-Module I (Ext)
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 placement; READ 043 or appropriate placement
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 and a regular police officer in accordance with Commission on Peace Officer Standards and Training requirements.
21.5 Units
297 Lecture hours
270 Lab hours

PAC 075E
Basic Academy Intensive Modular III
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 placement; READ 043 or appropriate placement
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.
7 Units
99 Lecture hours
81 Lab hours

PAC 075F
Basic Academy Intensive Modular II
Prerequisite: Medical Clearance, California Department of Justice clearance for firearms training, passing scores on POST written and physical tests (agency sponsored cadets are exempt) and PAC 075E
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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, 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 II Reserve officer.
8.5 Units
117 Lecture hours
108 Lab hours

PAC 075G
Basic Academy Intensive Modular I
Prerequisite: Medical Clearance, California Department of Justice clearance for firearms training, Passing scores on POST written and physical tests (agency sponsored cadets are exempt) and PAC 075F
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
This course is designed for those interested in becoming a Post Certified Police 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 Post Certified Police Officer.
21.5 Units
297 Lecture hours
270 Lab hours

PAC 078
Requalification - Basic Course
Prerequisite: PAC 040 or 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 placement; READ 043 or appropriate placement
This course is for students who have completed basic police recruit academy training but have not been active in the law enforcement field for at least three years. The course 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.
6 Units
90 Lecture hours
54 Lab hours

PAC 083
Pre-Academy Physical Fitness
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 022 or appropriate placement
This course is designed to help prospective police cadets improve their physical performance and keep informed of physical fitness techniques prior to entering the Río Hondo Police Academy. The curriculum is geared toward and utilized by the California Commission on Peace Officer Standards and Training.
0.148 to 2.962 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 placement; READ 043 or appropriate placement
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 participate in 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: POLS 128 or POLS 128H)*
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 placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: POLS 128 or POLS 128H)*
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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
Chicana/o/x Politics
(Same as CHST 150)
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 appropriate placement
Transfers to: UC, CSU
This course examines United States history and political issues relevant to the Chicana/o/x and Latina/o/x communities. The course provides an overview of demographic changes in the U.S. and examines political activism and political leadership. Students interested in this course may include individuals with familial or personal connections to the Chicana/o/x (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 and 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 5 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
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 (C-ID ADS 110X)
Drugs, Society, and Behavior
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 (C-ID ADS 140X)
Introduction to the Physiological Effects of Drugs of Abuse
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 con-

ditioning, 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 placement; READ 043 or appropriate placement
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 placement
Advisory: ENGL 101 and READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*The UC will grant credit for only one of the following courses: MATH 130 or MATH 130H or PSY 190.)*
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 placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 and 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 5 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
Radio Broadcasting
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an introduction to the field of broadcasting and other electronic media. Emphasis is placed on the history, development,

and current status of broadcasting and related industries. Students will explore the broadcasting industry and develop "on-air" skills for a variety of radio formats. Upon completion, students should be able to demonstrate knowledge of regulations, organizational structure, revenue sources, historical development, and the ongoing operation of broadcasting and related industries.
3 Units
54 Lecture hours

RDIO 136
Radio Production
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This introductory-level course focuses on the theory and application of audio production techniques for radio broadcasting. Students learn audio equipment for both live and pre- recorded (live-to-tape) broadcasting, including learning broadcast writing, radio program formats, announcing skills, how to use recording equipment, mixers, and digital audio production.
4 Units
36 Lecture hours
108 Lab hours

RDIO 236
Advanced Radio Production
Prerequisite: RDIO 136
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course is an opportunity for advanced study for students who want to learn production and management techniques used in radio broadcasting. Students are shown proper announcing and on-air presentation techniques through lecture, demonstration, and taped examples. Students will have an opportunity to air their programs over KRHC, the campus internet radio station.
4 Units
36 Lecture hours
108 Lab hours

RDIO 290
Cooperative Work Experience/Internship for Radio Related Fields
Prerequisite: RDIO 104
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 and 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 5 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 placement; READ 021 or appropriate placement
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 Río 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 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 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 Río 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 complete reading tasks intended to complement the activities of their reading course. All READ 021 students must enroll in this concurrently. 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 Río 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: Successful completion of READ 021 with a "P" or appropriate placement through the Río 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 complete reading tasks designed to complement the activities of their reading course. All READ 022 students must enroll concurrently in this course. 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 placement through the Río 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 044
Learning Strategies for Composition and Research
This course is designed for students entering college who need to develop their composition and research skills. 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.
1.5 Units
27 Lecture hours

READ 101
Critical Reading
Prerequisite: READ 043 or appropriate placement through the Río Hondo College assessment process
Advisory: ENGL 035 or ENLA 100 or appropriate placement
Transfers to: UC, 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 placement; READ 043 or appropriate placement
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

SOCIOLOGY

Division of Behavioral & Social Sciences

SOC 101 (C-ID SOCI 110)
Introduction to Sociology
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is designed for students interested in the social scientific study of human sexuality. The course pro-

vides 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 placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students interested 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 placement; READ 043 or appropriate placement
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 constitute 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 appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 delinquency, the impact of crime on social change, and the labeling, identification, characteristics, and treatment of criminals and delinquents.
3 Units
54 Lecture hours

SOC 130
Introduction to Disability Studies
Advisory: SOC 101, ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; SOC 101
Transfers to: UC, CSU
This course introduces the topic of disability studies from a sociological perspective. Students learn definitions and distinctions involved in the study of disabilities, which include various theories and models of disability. The course is designed for students who want to learn about the connections between disability and society, including the culture of disability and ableism, the relationship between disability and various social institutions, and the intersectional relationship between disabled and other marginalized groups.
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 placement; READ 043 or appropriate placement
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 of 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. The 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 placement; READ 043 or appropriate placement
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 and 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 201, 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 of those students who have successfully completed the

required prerequisites. Students will develop a broad understanding of social change within society through the examinationof 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 (C-ID SPAN 100)
Spanish for Spanish Speakers I
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement; ENGL 035 or ENLA 100 or appropriate placement
Transfers to: UC (credit limit), 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 (C-ID SPAN 110)
Spanish for Spanish Speakers II
Prerequisite: SPAN 101S
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit, 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
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 and 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 5 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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement
Transfers to: UC (credit limit), 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 placement; READ 022 or appropriate placement; 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 Río 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 placement; READ 022 or appropriate placement
Transfers to: CSU
This course involves participation in Río 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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: CSU
This is a creative communication course focusing on group presentations of literature. Students will perform pose, 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 placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), 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 placement; READ 043 or appropriate placement
Transfers to: UC, 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 (credit limit), 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 10 for the Workplace
Advisory: READ 043 or appropriate placement
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 or Construction 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 and/or Department of Labor card.
1 Unit
18 Lecture hours

TCED 054
OSHA Workplace Safety II
Advisory: READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 090
Blueprint Reading for Industry
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 101
Occupational Safety and Health for the 21st Century
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: CSU
This course provides an overview of the origins of occupational safety and health standards in the United States. The environmental and social justice issues that led to the creation of workplace safety and health standards will be discussed, a detailed overview of required occupational safety and health standards and regulations will be provided, and the impact of current issues in sustaining occupational safety and health on a 21st century workforce will be emphasized. Students will gain insights into the intersection of public safety, public health, and the building and environmental health standards which inform workplace safety policies and procedures. Course activities will include hands-on exercises to demonstrate hazard awareness; the correct use of tools, material handling, and safety equipment; and the development of emergency protocols and safety procedures. Students will have the opportunity at course completion to receive a Department of Labor (DOL) 30-hour Occupational Safety and Health Administration (OSHA) certification card provided all course requirements are met. The DOL card is often an initial certification for industrial occupational safety and health technicians, first line supervisors and managers, and construction and building inspectors.
4 Units
72 Lecture hours

TCED 299
Directed Study in Technical Education
Prerequisite: 2.5 overall grade point average and 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 placement; READ 043 or appropriate placement
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 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
Digital Filmmaking I: Introduction
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This is an introductory course in film production techniques for narrative, documentary, and music video, and may be of interest to students interested in both film and television production. Topics include creating a story treatment, screenwriting, storyboarding, camera operation, lighting, introductory production sound, and non-linear editing. Students work in teams and crew all positions, including writer, producer, director, assistant director, cinematographer, boom operator, and editor. Emphasis is placed on defining the content, structure, and style of the production. Students implement these skills with projects in documentary, music video, and narrative filmmaking traditions.
3 Units
36 Lecture hours
54 Lab hours

TV 136
Digital Filmmaking II: Intermediate
Prerequisite: TV 135
Transfers to: CSU
This intermediate course in film production techniques for narrative, music video, and branded content may be of interest to students interested in both film and television production. Topics include screenwriting, storyboarding, camera operation, lighting, production sound, and non-linear editing. Students work in teams and crew all positions, including writer, producer, director, first assistant director, cinematographer, camera assistant, gaffer, grip, boom

operator, production sound mixer, and editor. The course incorporates career pathways in the contemporary media landscape, including branded content, social media, and new media. Emphasis is placed on personal storytelling, crew collaboration, professionalism, and building a professional resume and portfolio.
3 Units
36 Lecture hours
54 Lab hours

TESLA

Division of Career & Technical Education

TESL 100
Tesla Student Automotive Technician (START) Program
Prerequisite: AUTO 265
Transfers to: CSU
This course is intended to educate the entry-level technician to the technology used in Tesla motors. Topics will include: safety when working in or around high voltage, maintenance, regeneration braking, inverter power transfer, battery technologies, battery management systems, high voltage bus and charging, pack connector and penthouse controls, and autonomous technology. Electric vehicle applications and their integrated systems from Tesla motors will be used to discuss physics of battery storage, material composition, and high-voltage generation systems. This course is suitable for students already working in the battery electric/hybrid vehicle and energy technology field. The Tesla START program provides students with the skills necessary for a successful career with Tesla.
15 Units
162 Lecture hours
324 Lab hours

THEATRE

Division of Arts & Cultural Programs

THTR 101 (C-ID THTR 111, THTR 112)
Theatre Arts Appreciation
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students seeking an overview of the entire field of theatre. The practice and theory of the following are explored: costume, set and lighting design, acting, directing, playwriting, criticism, play structure, theatre architecture, and producing. The instructor includes a brief historical overview and organizes at least one field trip to a professional theatre production.
3 Units
54 Lecture hours

THTR 105 (C-ID THTR 113)
The History and Development of the Theatre
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: THTR 105 or THTR 105H)*
This course is for students interested in the history of the theatre. It covers humanity's relationship with theatre from primitive tribal cultures through today's large musicals and blockbuster hits. The course explores the ways societal, religious, political, and social structures were presented and shared through the theatre; and investigates 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 placement
Transfers to: UC (credit limit), CSU*
*(*Students will receive credit for only one of the following courses: THTR 105 or THTR 105H)*
This course is for students interested in the history of the theatre. It covers humanity's relationship with theatre from primitive tribal cultures through today's large musicals and blockbuster hits. The course explores the ways societal, religious, political, and social structures were presented and shared through the theatre; and investigates 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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students who are interested in acting in the 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 students who want to continue to explore theories and techniques used in preparation for the interpretation of drama through acting, and to develop their skills past the beginner level. Emphasis will be placed on deepening an 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 placement; READ 043 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 Río 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 placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 043 or appropriate placement
Transfers to: UC, CSU
This course is for students who want to gain practical, hands-on, technical experience working backstage. Students will gain experience working as part of a stage crew supporting public performances of theatrical, musical, or dance productions. This 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement
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 Río 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 Río 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 Río Hondo College.
1 to 2 Units
54 to 108 Lab hours

THTR 170 (C-ID THTR 191)
Theatre Rehearsal and Performance
Prerequisite: Limitations: Acting students must audition and Technical/ Support students must interview prior to participating in the course
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement; THTR 110
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' performances will be evaluated by judges representing ACTF during public performances at Río 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 provided 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
Prerequisite: Limitations: Acting students must audition and Technical/ Support students must interview prior to participating in the course
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
Transfers to: UC, CSU
This course is for students who want to study theatre productions as they are created and expressed through comedic drama. The class will explore comedy genres, acting techniques, physical communication, and comic objectives. Students are part of a full-length or one-act production (or a combination of both), and may participate in a variety of activities including acting, directing, production, and management; auditions will determine the specific assignment.
3 Units
18 Lecture hours
108 Lab hours

THTR 173
Rehearsal and Performance: The Style Play
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement;
Transfers to: UC, CSU
This course is for students who want 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 in 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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement; 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 placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
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
Transfers to: UC, CSU
This course is for students who want to develop their ability to work with actors, interpret drama, and stage plays. It will cover the history and the techniques of the stage director. Emphasis is placed on class activities such as exercises in staging techniques and directing short scenes. Career opportunities, stage management and assistant directing are also covered. This course is a requirement for the Theatre Arts AS Degree.
3 Units
36 Lecture hours
54 Lab hours

THTR 231
Principles of Directing II
Prerequisite: THTR 230
Advisory: READ 043 or appropriate placement
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 placement; READ 022 or appropriate placement
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 placement; READ 043 or appropriate placement
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 and 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 5 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 placement
This course is intended for students who want to develop precollegiate-level reading, writing, and speaking vocabulary. Students learn the meaning of new words commonly used in college textbooks and lectures, and use them in written and spoken sentences. Students also gain knowledge of word roots to reinforce their understanding of words. This is a non- degree applicable 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 placement; READ 022 or appropriate placement
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 placement
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 placement
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 proving 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 the newborn through infancy, toddler, preschool, school-age, and adolescent stages. Emphasis is placed upon nursing care appropriate to the developmental stage of the child, and pediatric problems including biological and psychological problems affecting both healthy and hospitalized children and families. This course is open to students enrolled in the Vocational Nursing Program, and is required for the Vocational Nursing License.
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 psychosocial 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
This course is intended for students who want 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 is 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 placement; READ 043 or appropriate placement
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 placement; 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
Prerequisite: WELD 040
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 procedures 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
Preequisite: WELD 055
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 and 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 placement; READ 043 or appropriate placement
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 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 (FFl) 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 chainsaws. 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 placement; READ 043 or appropriate placement
This course provides first responders and other interested students an introduction to the Incident Command System (IC5-100). 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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 incident 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 placement; READ 043 or appropriate placement
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: FTEC 044
Advisory: READ 043 or appropriate placement; WFT 101, WFT 102, WFT 103
This course is designed for students who want to gain certification as a wildland firefighter through the National Wildland Coordinating Group (NWCG). This course provides training in hand crew formation, fireline construction, and the use of wildland fire equipment. Certification is included in Human Factors in the Wildland Fire Service (NWCG L-180), Firefighter Training (NWCG S-130), Firefighter Type 1 (NWCG S-131), Introduction to Wildland Fire Behavior (NWCG S-190), Portable Pumps and Water Use (NWCG S-211), Firing Operations (NWCG S-219), Basic Air Operations (NWCG S-270), American Heart Association (AHA) First Aid/CPR/AED Certification, California Specialized Training Institute (CSTI) Hazardous Materials First Responder Awareness (FRA) and Hazardous Material Operations (FRO), and California State Fire Marshal (CSFM) Low Angle Rope Rescue Operations (LARRO). Students learn about wildland fire crews (engine crews, hand crews, hotshot crews, helitak crews, and smokejumpers), wildland fire behavior, wildland firefighter personal protective equipment, wildland firefighter safety, helicopter safety, dozer safety, wildland fire pumps, and wildland fire tools and firing devices. This course includes arduous physical conditioning includ-

ing hiking with up to 45 pounds of weight and other strenuous outdoor activities. The academy exceeds the United States Forest Service (USFS) minimum training requirements for an entry-level wildland firefighter for certification purposes.
16 Units
189 Lecture hours
297 Lab hours

WFT 101
Wildland Fire Behavior
Advisory: ENGL 030 or ENLA 034 or appropriate placement; READ 043 or appropriate placement; MATH 033 or MATH 033B or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
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 placement; READ 043 or appropriate placement
Transfers to: CSU
This course supports and reinforces on-the-job training in the wildland fire technology (WFT) field under supervision of a college instructor, facilitated by learning objectives. Students work in a skilled or professional- level assignment in the area of wildland fire technology, and meet performance objectives related to instruction required for the conditions of regular employment. The course is intended for students whose job is related to the wildland fire technology field and who 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

Noncredit Courses

NAJ 001
Public Safety Careers Exploration
This course provides an orientation to the dynamic field of public safety services and career paths. Topics include survey of the history and development of public safety agencies, ethical and moral standards of service members, types of employment opportunities, education and training requirements. Students receive guidance in individual assessment of suitable careers and develop personal education plans.
0 Units
8 Lecture hours

NAJ 002
Public Safety Officer Employment Readiness: Oral Interview and Personal History
This course equips students with knowledge and practical guidance in the pre-employment background investigation process for careers in public safety. Students learn how to thoroughly complete the Personal History Statement. Mock interviews and evaluations reinforce oral communication skills, and guidance in professional conduct prepares students to confidently navigate the job application process.
0 Units
8 Lecture hours

NAJ 003
Public Safety Officer Lifetime Wellness and Stress Management I
This course offers principles of physical fitness and mental health for students preparing for careers in public safety. Physical wellness topics include principles of physical conditioning, foundations of balanced nutrition, common medical concerns, and elements of the Physical Agility Test (PAT). Mental health topics include stress physiology, importance of social support, effects of substance use, and stress management techniques. Students gain awareness of the integrated nature of mind-body health and develop personal fitness programs.
0 Units
8 Lecture hours

NAJ 004
Introduction to Laws of Arrest/Search and Seizure
This course is an introduction to key federal and state constitutional laws that inform the authority, liability, and responsibilities of public safety agencies in conducting arrests, searches, and seizures. Students gain an overview of the laws of arrest, types of searches and seizures, and their respective execution procedures.
0 Units
4 lecture hours

NAJ 005
Fundamentals of Report Writing
This course introduces the critical functions of investigative reports and the responsibility of Public Safety professionals in preparing complete and accurate reports. Students learn the components of an effective investigative report, review essential grammar and writing mechanics, and practice composing a concise report.
0 Units
8 Lecture hours

NAJ 006
Public Safety Officer Lifetime Wellness and Stress Management II
This course reinforces personal disciplines in maintaining physical and mental wellness for Pre-Academy students and prospective police cadets. A practicum companion to NPAC 003 Lifetime Wellness and Stress Management I, this course emphasizes physical performance training to meet specific requirements of the California Commission on Peace Officer Standards and Training.
0 Units
6 Lecture hours

NAJ 007
PELLETB: Exam Preparation
This is an academic test preparation course for Pre-Academy students seeking admissions to the Police Academy. Students gain an overview of the components of the POST Entry Level Law Enforcement Test Battery (PELLETB) and are guided in practice exercises with sample questions.
0 Units
4 Lecture hours

NAJ 008
Fundamentals of Law Enforcement/ Individual Study
(Formerly NVOC 008)
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

NART 005
Theatre Production Workshop
(Formerly NVOC 005)
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

NART 285
Graphic Design Skills Development
(Formerly NVOC 285)
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 Río Hondo College Graphic Design course with a prefix of ART or GDSN.
0 Units
1 to 400 Lab hours

NART 291
Career Exploration: Graphic Design I: History
(Formerly NVOC 291)
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

NART 292
Career Exploration: Graphic Design II: Process
(Formerly NVOC 292)
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

NART 293
Career Exploration: Graphic Design III: Academic Pathways
(Formerly NVOC 293)
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

NART 294
Career Exploration: Graphic Design IV: Career Paths
(Formerly NVOC 294)
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

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 they need 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. The course is open-entry/open-exit.
0 Units
1 to 360 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 360 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

NBIZ 001
Introduction to Computers
This course is designed to enable efficient operation of the alphanumeric keyboard on a computer. Common keyboarding techniques will be applied to develop speed and accuracy. Students will create typed document files and learn editing/formatting functions on Microsoft® Word® and a variety of word processing programs in order to prepare school assignments, personal and essential business correspondences.
0 Units
24- Lecture hours

NBIZ 002
Keyboarding and Word Processing
This course is designed to enable efficient operation of the alphanumeric keyboard on a computer. Common keyboarding techniques will be applied to develop speed and accuracy. Students will create typed document files and learn editing/formatting functions in order to prepare school assignments and personal and business correspondences.
0 Units
24- Lecture hours

NBIZ 038
Real Estate Practices
(Formerly NVOC 038)
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

NBIZ 039
Real Estate Finance
(Formerly NVOC 039)
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 NBIZ 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

NBIZ 040
Real Estate Principles
(Formerly NVOC 040)
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 NBIZ 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

NBIZ 041
Real Estate Appraisal
(Formerly NVOC 041)
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 NBIZ 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

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
U.S. Citizenship Preparation
This course is designed to assist eligible individuals in completing the steps required to become United States citizens. Students gain knowledge of United States history, government and institutions, community services and agencies, and the privileges and obligations of citizenship. The course prepares students with literacy skills necessary to pass the written test and provides listening and speaking practices for the oral interview. Students will receive guidance on completing appropriate application 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 Río Hondo Chapter of Sweet Adelines; other local choral and/or singing groups; and instruc-

tion 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
Principles of Mind and Body Health for Older Adults: Flexibility and Balance
This course provides older adults with instruction and resources for cultivating mind and body health. Guided instruction in active and passive yoga poses, stretching movement, and breathing exercises adapted for older adults is incorporated with introduction to the philosophy of Hatha Yoga. The course includes presentations and class discussions on current topics on nutrition, healthy aging, and safety factors.
0 Units
1 to 24 Lecture hours

NCOA 012
Principles of Mind and Body Health for Older Adults II: Strength and Balance
This course provides older adults with instruction and resources for cultivating mind and body health. Guided instruction in movements to maintain and increase muscle strength, physical fitness, coordination, and balance is combined with class discussions on current topics in nutrition, healthy aging, and mental health.
0 Units
1 to 24 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 Río Hondo College's Credit English Program.
0 Units
30 to 60 Lecture hours

NESL 019
ESL Advanced II
Prerquisite: 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 Río 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

NFIR 015
Practical Experience in Fire Suppression
(Formerly NVOC 015)
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

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

NHSN 030
Personal Care Aide
(Formerly NVOC 030)
Corequisite: NHSN 031
Advisory: GED or High School Diploma
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 individuals served; personal hygiene, safe transfer techniques, basic nutrition, and other personal care needs.
0 Units
70 Lecture hours
30 Lab hours

NHSN 031
First Aid and CPR
(Formerly NVOC 031)
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

NHSN 032
American Heart Association CPR BLS
(Formerly NVOC 032)
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

NHSN 040
Healthcare Careers Exploration
This course is an orientation to non-clinical allied healthcare career pathways. Students gain exposure to the human services and administrative support dimensions of the healthcare field and learn about employment opportunities, educational requirements, and support resources available to enter the growing workforce. Students benefit from assessing their personal values and aptitudes for a career in healthcare while engaging general introductions to principles and practices foundational to healthcare careers.
0 Units
24 Lecture hours

NHSN 042
Medical Office Procedure and Customer Service
This course is designed to develop professional skills and attitudes needed in a medical business environment. Topics include effective communication with patients and medical office staff, effective time management, scheduling appointments, greeting patients, telephone and email business etiquette, and adherence to Health Insurance Portability and Accountability Act (HIPAA) guidelines.
0 Units
24 Lecture hours

NHSN 043
Medical Office Administration
Advisory: NHSN 042
This course is a practicum to complement NHSN 042 - Medical Office Procedures and Customer Service. Students engage in patient interaction simulations, applying customer service skills, and using computers in a medical/clinical setting. Students gain hands-on experience in scheduling appointments, working with electronic medical records, and establishing a fee schedule, and receive orientation to the Microsoft Office suite, electronic billing software, electronic medical record software, and telephone, fax, and email systems.
0 Units
48 Lecture hours

NHSN 044
Medical Insurance Claims
This course provides an overview of common health insurance terminology and selected aspects of private and government insurance coverage. The course introduces basic principles of diagnostic and outpatient procedural coding of physician/provider documentation. Students learn how to originate accurate and efficient reimbursement medical insurance claims for services provided.
0 Units
48 Lecture hours

NHSN 045
Health Care Industry Employment Readiness
This course equips students with skills and strategies for successful job placement in the health care industry. Course topics include interpersonal skills development, business communication, professional dress, and time management. Students receive practical guidance in resume and cover letter writing, interviewing, and navigating job search resources.
0 Units
24 Lecture hours

NHSN 050
Nurse Assistant Pre-Certification (Formerly NVOC 050)
Corequisite: NHSN 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 NHSN 050 and NHSN 05L, and pass both courses together, they cannot be taken individually.
0 - Units
72 - Lecture hours

NHSN 050L
Nurse Assistant Pre-Certification Lab (Formerly NVOC 050L)
Corequisite: NHSN 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 NHSN 050 and NHSN 050L, and pass both courses together. They cannot be taken individually.
0 Units
0 Lecture hours
135 Lab hours

NHSN 051
CNA Acute Care Training Course (Formerly NVOC 051)
Prerequisite: NHSN 050 and NHSN 050L or California State Nurse Assistant Certification;
Corequisite: NHSN 051L
Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 043 or appropriate assessment
This course is designed for students who are Certified Nurse Assistants that wish to learn the basic nursing skills and duties that apply to the acute care hospital setting. Specialized acute care areas, such as medical/surgical, orthopedics, pediatrics, and obstetrics, will be emphasized. The CNA Acute Care Training Course consists of 27 hours of lecture content. Topics covered include communication, patient observation skills, reporting and recording training, and reinforcement of Certified Nurse Assistant basic-care procedures. The Division of Health Science and Nursing requires that students be concurrently enrolled in both NHSN 051 and NHSN 051L, and successfully complete both courses together. They cannot be taken individually.
0 Units
27 Lecture hours

NHSN 051L
CNA Acute Care Training Course Lab (Formerly NVOC 051L)
Prerequisite: NHSN 050 and NHSN 050L or California State Nurse Assistant Certification;
Corequisite: NHSN 051
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 hospital 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 81 hours of clinical practice alongside a clinical employed CNA in an acute care facility with faculty daily/weekly monitoring. This course includes communication, patient observation, reporting and recording training as well as reinforcement of Certified

Nurse Assistant basic-care procedures. The Division of Health Science and Nursing requires that students be concurrently enrolled in both NHSN 051 and NHSN 051L, and successfully complete both courses together. They cannot be taken individually.
0 Units
81 Lab hours

NHSN 052
Home Health Aide Training Course (Formerly NVOC 052)
Prerequisite: Nurse Assistant Pre-Certification Training Course/California State Certification;
Corequisite: NHSN 052L;
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 Public Health requires that students must be concurrently enrolled in both NHSN 052 and NHSN 052L, and pass both courses together, they cannot be taken individually.
0 Units
27 Lecture hours

NHSN 052L
Home Health Aide Training Course (Formerly NVOC 052L)
Prerequisite: Nurse Assistant Pre-Certification Training Course/California State Certification;
Corequisite: NHSN 052;
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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 NHSN 052 and NHSN 052L, and pass both courses together. They cannot be taken individually.
0 Units
54 Lab hours

NSCI 041
Basic Anatomy for Health Care
This course provides a basic overview of the structure and systems of the human body. Students are introduced to the body structures and functions of integumentary, musculoskeletal, nervous, sensory, endocrine, circulatory, lymphatic, respiratory, digestive, and genitourinary systems. The course covers the various ways by which human body structures maintain normal, healthy functions and includes an introduction to anatomical and physiological functions related to various disorders and diseases in each body system. This course does not satisfy the human anatomy requirement for credit.
0 Units
48- Lecture 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 021
OSHA 10 for General Industry
This course is intended for the individual who needs an overview and/or certification of OSHA safety standards for general Industry workplaces. This course will focus on OSHA's role in ensuring safe workplaces through hazard awareness and training while providing an overview of safety standard topics such as emergency action plans, fire protection and prevention, material handling, machine guarding, electrical safety, and walking-working surfaces. Upon successful completion of this course and meeting attendance requirements, the student will receive a Department of Labor 10-hour OSHA Training Card.
0 Units
14 – 18 Lecture hours

NVOC 027
OSHA 10 for Construction Trades
This course is intended for the individual who needs an overview and/or certification of OSHA safety standards for the construction workplace. This course will focus on hazard awareness while providing an overview of topics such as fire protection and prevention, material handling, hand and power tools, welding safety, electrical safety, and fall protection. Upon completion of this course and meeting attendance requirements, the student who completes the course will receive a 10-hour Department of Labor (DOL) OSHA Certification Card.
0 Units
14 – 18 Lecture 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 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 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.
0 Units
36 Lecture hours
108 Lab hours

NVOC 061
Production Welding Techniques
This is an intermediate level course focused on welding techniques used in high-volume production manufacturing environments. Students gain proficiency using pulsed-arc & non-pulsed-arc gas metal arc welding (GMAW) and gas tungsten arc welding (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.
0 Units
36 Lecture hours
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 069
Introduction to Gas Tungsten Arc Welding
Advisory: READ 043 or appropriate placement; WELD 040 or NVOC 059
This course introduces the principles and practices of gas tungsten arc welding (GTAW), including setup/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.
0 Units
36 Lecture hours
108 Lab hours

NVOC 070
Advanced Gas Tungsten Arc Welding
Advisory: READ 043 or appropriate placement; WELD 065 or NVOC 069
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.
0 Units
36 Lecture hours
108 Lab hours

NVOC 071
Basic Electric Arc Welding
Advisory: ENGL 035 or ENLA 100 or appropriate placement; READ 043 or appropriate placement
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.
0 Units
18 Lecture hours
54 Lab hours

NVOC 072
Manual Electric Arc Welding Processes
Advisory: READ 043 or appropriate placement; WELD 040 or NVOC 059
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.
0 Units
36 Lecture hours
108 Lab hours

NVOC 075
Certification Welding I
Advisory: READ 043 or appropriate placement; WELD 055 or NVOC 072
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 gage steel, and structural aluminum. Safety, welding codes, welding procedures 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.
0 Units
36 Lecture hours
108 Lab hours

NVOC 080
Certification Welding II
Advisory: READ 043 or appropriate placement; WELD 055 or NVOC 072
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 sluminum. 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.
0 Units
36 Lecture hours
108 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 Engineering. 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 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 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) applica-

tions 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 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