# Program, Degree and Certificate List by Department 

## Accounting

Dean: Traci Fahimi
Academic Chair: Bennet Tchaikovsky, CPA, Esq.
Faculty: Donald Bradshaw, MBA, CPA; Bennet Tchaikovsky, CPA, Esq.; Bob Urell

## Courses

Courses are offered in all phases of accounting. The curriculum emphasizes the use of the computer in a variety of accounting applications. Courses offered through the department may be taken to satisfy the major requirements for the Associate in Science degree or Certificate of Achievement in accounting, or certificates of proficiency in various accounting areas. Select courses may also be applied for transfer credit toward an upper-division degree at a four-year college or university.

## Major

Students majoring in accounting at Irvine Valley College ("IVC") focus on the principles and practices of accounting. The training they receive is intended to prepare them to make critical decisions based on data contained in various financial reports and statements. The major prepares students for transfer and some entry-level accounting positions in the public and private sectors in such areas as service, merchandising, and manufacturing companies.

## Program Student Learning Outcomes

Upon completion of the accounting program, students will be able to

- Demonstrate the ability to prepare financial reports and statements in public and private sector accounting.


## Potential Careers

After marjoring accounting at IVC and furthering their education, potentional accounting careers include the following:

## Private Accounting

- Certified Management Accountant
- Cost Accountant
- General Business Accountant
- Accounts Receivable
- Accounts Payable
- Payroll
- Tax Accountant


## Public Accounting

- Tax
- Audit
- Consulting

Note: Baccalaureate and higher degree holders may take IVC courses in preparation for entering some of the above-mentioned careers directly whereas transfer students may take IVC courses as a first step toward additional education needed to enter those fields. Vocational students may take courses in a more focused approach to gain entry to jobs that may or may not require a baccalaureate or higher degree.

## Accounting, AS

## School of Business Sciences

## Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units

OR

- ACCT 1BH MANAGERIAL ACCOUNTING HONORS 4 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units

Complete a minimum of three courses from the following:

- ACCT 112.1 SPREADSHEETS I 1.5 Units
- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units OR
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units OR
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units
or
- MGT 12AH THE LEGAL ENVIRONMENT OF BUSINESS HONORS 3 Units

Total Units Required: 18.5-20

## Recommended Electives:

- ACCT 114 BUSINESS MATHEMATICS 3 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- MGT 120 PRINCIPLES OF BUSINESS MANAGEMENT 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 203 BUSINESS ENGLISH 3 Units
- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

Note:

See an IVC counselor for course substitution if a course is not available.

## Accounting, COA

Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units
or
- ACCT 1BH MANAGERIAL ACCOUNTING HONORS 4 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units

Complete a minimum of four courses from the following:

- ACCT 112.1 SPREADSHEETS I 1.5 Units
- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units or
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units or
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units or
- MGT 12AH THE LEGAL ENVIRONMENT OF BUSINESS HONORS 3 Units

Total Units Required: 18.5-20

## Recommended Electives:

- ACCT 112.2 SPREADSHEETS II 1.5 Units
- ACCT 114 BUSINESS MATHEMATICS 3 Units
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- MGT 120 PRINCIPLES OF BUSINESS MANAGEMENT 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 203 BUSINESS ENGLISH 3 Units
- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.
Note:

See an IVC counselor for course substitution if a course is not available.

## Computerized Accounting, COP

This certificate of proficiency is intended to help prepare students to qualify for entry-level positions in the accounting department of a business using QuickBooks accounting software and spreadsheet software.

## Complete the following courses:

- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units
- ACCT 112.1 SPREADSHEETS I 1.5 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units


## Total Units Required: 6

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Financial Accounting, COP

This certificate of proficiency is intended to help prepare students to qualify for entry-level positions such as accounts payable accountant, accounts receivable accountant, or bookkeeper.

Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 112.1 SPREADSHEETS I 1.5 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units


## Total Units Required: 7

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Financial/Managerial Accounting, COP

This certificate of proficiency is intended to help prepare students to qualify for entry-level positions that require knowledge of both accounting and management analysis such as entry-level accounting or analyst positions or bookkeeper for manufacturing and other companies.

Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units
- ACCT 112.1 SPREADSHEETS I $\mathbf{1 . 5}$ Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units


## Total Units Required: 11

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Income Tax, COP

This certificate of proficiency is intended to help students to prepare for a position as an income tax return preparer with knowledge of both state and federal individual and business taxation using professional-level tax return preparation software.

## Complete the following courses:

- ACCT 207 BUSINESS INCOME TAXATION - FEDERAL AND STATE 3 Units


## Total Units Required: 6

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Note:

Students may apply for the above IVC Certificate of Proficiency or, alternatively, may opt for a certificate from the California Tax Education Council (CTEC) after completing ACCT 206 and ACCT 207 with a $70 \%$ score for the two courses combined. IVC is an approved provider of initial qualifying CTEC education.

## Payroll, COP

This certificate of proficiency is intended to help prepare students to qualify for entry-level positions that require knowledge of a payroll cycle, related accounting tasks, and spreadsheet analysis of payroll data for accounting and management use. Such positions might be found in the payroll department of companies of all sizes.

## Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 205 PAYROLL ACCOUNTING AND TAXATION 3 Units
- ACCT 112.1 SPREADSHEETS I 1.5 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units


## Total Units Required: 10

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Administration of Justice

Dean: Traci Fahimi
Academic Chair: Colin McCaughey
Faculty: Colin McCaughey

## Program

The Administration of Justice Program is dedicated to offering a quality program that will meet the lifelong learning needs of our students and communities and prepare them for employment in various agencies within the criminal justice system and/or
transfer. Our faculty is devoted to the professional delivery of instruction that will enhance our student's lives and their academic and vocational success.

## Courses

The department offers a wide range of courses that will prepare students for transfer to upper division coursework towards a fouryear degree, and prepare students to seek employment in various agencies of the criminal justice system. The curriculum is designed to acquaint pre-service and in-service students with the principles and practices of criminal justice in America. Involvement in courses offered each semester will provide a sound foundation for students intending to pursue careers or further study in law enforcement, corrections, supervision and administration, parole and court duties, private security, and pre-law programs.

The Irvine Valley College administration of justice program is accredited by the Commission of Peace Officers Standards and Training (P.O.S.T.) in California. The program also sponsors a chapter of American Criminal Justice Association - Lambda Alpha Epsilon, a nationally recognized organization for promoting ethics, professionalism, and education in the criminal justice field.

## Major

Local civil service regulations govern the appointment of police officers in practically all large and many small cities. Eligibility for appointment depends upon performance in competitive examinations as well as education and experience. Students at Irvine Valley College may earn the Associate in Science degree or Associate in Science Degree for Transfer, or Certificate of Achievement in either law enforcement or supervision

## Program Student Learning Outcomes

## Law Enforcement

Upon completion of the administration of justice program in law enforcement, students will be able to

- Identify career opportunities within the law enforcement component of the criminal justice system
- Identify the steps involved in the hiring process of law enforcement personnel.


## Supervision

Upon completion of the administration of justice program in supervision, students will be able to

- Identify the skills and abilities required to be an effective law enforcement supervisor.
- Describe the importance of ethical decision-making while in a supervisory and/or leadership role.


## Potential Careers (for Non-Transfer Degree Recipients)

Examples of careers for the administration of justice major include the following:

- Corrections Officer
- Defense Attorney
- Forensic Investigations
- Homeland Security
- Investigator (criminal and civil)
- Law Enforcement Officer (local, state, federal)
- Legal Aide
- Legal Assistant
- Parole Officer
- Private Security Operator
- Probation Officer
- Prosecutor
- Security Guard


## Administration of Justice for Transfer, AS-T


#### Abstract

The department offers a wide range of courses that will enable students to find employment in various agencies of the administration of justice system. This curriculum is designed to acquaint pre-service and in-service students with the principles and practices of criminal justice in America. The Irvine Valley College administration of justice program is accredited by the California State Commission of Peace Officers Standards and Training (P.O.S.T.). The program also sponsors a chapter of Lambda Alpha Epsilon of the American Criminal Justice Association, a professional law enforcement association. The Associate in Science in Administration of Justice for Transfer is designed to assist students in the seamless transferring to a CSU and complete a bachelor degree.


## Complete the following courses:

- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
- AJ 4 CRIMINAL LAW I 3 Units


## Complete 6 units from the following courses:

- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 19 INTRODUCTION TO CORRECTIONS 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units

Complete 6 units from the following courses or any course from above not already taken:

- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 13 CONSTITUTIONAL LAW AND THE JUSTICE SYSTEM 3 Units
- AJ 19 INTRODUCTION TO CORRECTIONS 3 Units
- AJ 61 ORGANIZED CRIME AND CRIMINAL ENTERPRISE IN AMERICA 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units
- AJ 106 POLICE FIELD OPERATIONS 3 Units
- AJ 111 LAW ENFORCEMENT ADMINISTRATION 3 Units
- AJ 112 POLICE SUPERVISION 3 Units
- AJ 150 REPORT WRITING FOR ADMINISTRATION OF JUSTICE 3 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units OR
- PSYC 1H INTRODUCTION TO PSYCHOLOGY HONORS 3 Units
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units OR
- PSYC 10H STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES HONORS 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units OR
- SOC 1H INTRODUCTION TO SOCIOLOGY HONORS 3 Units


## Total Units Required: 18

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Note:

See an IVC counselor for course substitution if a course is not available.

## Law Enforcement, AS

Complete the following courses:

- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
- AJ 4 CRIMINAL LAW I 3 Units
- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 150 REPORT WRITING FOR ADMINISTRATION OF JUSTICE 3 Units

Complete 9 units from the following courses:

- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units
- AJ 106 POLICE FIELD OPERATIONS 3 Units
- AJ 111 LAW ENFORCEMENT ADMINISTRATION 3 Units
- AJ 112 POLICE SUPERVISION 3 Units
- AJ 113 CONSTITUTIONAL LAW AND THE JUSTICE SYSTEM
- AJ 119 INTRODUCTION TO CORRECTIONS
- AJ 161 ORGANIZED CRIME AND CRIMINAL ENTERPRISE IN AMERICA
- AJ 250 P.O.S.T. CERTIFIED-ARREST, SEARCH, SEIZURE, AND FIREARMS 3 Units
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 1 Unit


## OR

- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 2 Units OR
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 3 Units OR
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 4 Units


## Total Units Required: 27

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Law Enforcement, COA

Complete the following courses:

- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
- AJ 4 CRIMINAL LAW I 3 Units
- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 150 REPORT WRITING FOR ADMINISTRATION OF JUSTICE 3 Units


## Complete 9 units from the following courses:

- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units
- AJ 106 POLICE FIELD OPERATIONS 3 Units
- AJ 111 LAW ENFORCEMENT ADMINISTRATION 3 Units
- AJ 112 POLICE SUPERVISION 3 Units
- AJ 113 CONSTITUTIONAL LAW AND THE JUSTICE SYSTEM
- AJ 119 INTRODUCTION TO CORRECTIONS
- AJ 161 ORGANIZED CRIME AND CRIMINAL ENTERPRISE IN AMERICA
- AJ 250 P.O.S.T. CERTIFIED-ARREST, SEARCH, SEIZURE, AND FIREARMS 3 Units
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 1 Unit OR
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 2 Units OR
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 3 Units OR
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 4 Units


## Total Units Required: 27

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Supervision, AS

Complete the following courses:

- AJ 4 CRIMINAL LAW I 3 Units
- AJ 106 POLICE FIELD OPERATIONS 3 Units
- AJ 111 LAW ENFORCEMENT ADMINISTRATION 3 Units
- AJ 112 POLICE SUPERVISION 3 Units
- AJ 150 REPORT WRITING FOR ADMINISTRATION OF JUSTICE 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units

Complete 9 units from the following courses:

- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 1 Unit or
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 2 Units or
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 3 Units or
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 4 Units


## Total Units Required: 27

## Recommended Electives:

- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Supervision, COA

Complete the following courses:

- AJ 4 CRIMINAL LAW I 3 Units
- AJ 106 POLICE FIELD OPERATIONS 3 Units
- AJ 111 LAW ENFORCEMENT ADMINISTRATION 3 Units
- AJ 112 POLICE SUPERVISION 3 Units
- AJ 150 REPORT WRITING FOR ADMINISTRATION OF JUSTICE 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units

Complete 9 units from the following courses:

- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 1 Unit or
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 2 Units or
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 3 Units or
- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 4 Units


## Total Units Required: 27

## Recommended Electives:

- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Adult English as a Second Language

Interim Dean: Brooke Bui, PhD<br>Academic Co-Chairs: Rebecca Beck; Jeff Wilson<br>Faculty: Rebecca Beck; Brent Warner; Jeff Wilson

## Adult English as a Second Language (AESL) Non-Credit Program

The Adult English as a Second Language (AESL) program is an intensive, non-credit English language program that provides non-native English speakers with English language instruction to meet their vocational, community, personal, and academic goals. The curriculum consists of integrated listening, speaking, reading, and writing language skills as well as a focus on US culture, civics, and media literacy. The program is comprised of an organized sequence of five courses, starting with the lowbeginning level and progressing to the low-advanced level.

The program provides students with increased opportunities for successful employment, community engagement, and academic success. Students are also able to seamlessly transition to the academic, credit ESL courses at IVC.

The AESL Center in room B 382 supports all future and current ESL students in becoming successful IVC students and learning English for work, with family, in the community or at school. The AESL Center is a one-stop center that offers student services that specifically address non-native speakers of English needs, including assistance with completing the admissions and registration process, ESL assessment, orientation, counseling, and campus and community resource referral. The center has computers and staff available to provide language and digital support for students. The AESL Center also is used as a classroom / lab for ESL classes. (All F-1 visa students should go to the International Student Center for assistance.)

For more information, visit the AESL Center in room B 382, email ivcesl@ivc.edu, or call 949-451-5510.

## Program Student Learning Outcomes

Upon completion of the Adult English as a Second Language program, students will be able to

- Effectively communicate orally in English during conversations, presentations, and other types of oral performance.
- Interpret and understand a wide span of authentic written texts, including web-based.
- Compose paragraphs, memos, summaries of readings, and emails using appropriate vocabulary, structure, and grammar.
$\left.\begin{array}{rl}\text { A E S L A N D }\end{array} \begin{array}{rl}\text { E S L } \\ \text { P R O R A M C R O S S W A L K }\end{array}\right]$


## Advanced Adult ESL, COC

This sequence of courses is designed to help non-native English language learners refine communication skills and cultural/civic proficiencies used in everyday life situations they will encounter at home, at school, at work, and in the community. The program prepares students to develop extended oral fluency, read and understand work-specific and simple academic texts, and write
extended paragraphs. It prepares students for ESL academic credit courses and oral and written communication needs in the workplace.

## Complete the following courses:

- AESL 504 INTERMEDIATE ADULT ESL LEVEL 40 Units
- AESL 505 ADVANCED ADULT ESL LEVEL 50 Units


## Beginning Adult ESL, COC

This sequence of courses is designed to help non-native English language learners acquire basic communication skills and cultural/civic proficiencies used in everyday life situations encountered at home, at school, at work, and in the community. The program prepares students to participate in simple conversations, read and understand basic directions and texts, fill out basic forms, and write simple sentences. It also prepares students for the intermediate level program.

## Complete the following courses:

- AESL 501 BEGINNING ADULT ESL LEVEL 10 Units
- AESL 502 BEGINNING ADULT ESL LEVEL 20 Units


## Intermediate Adult ESL, COC

This sequence of courses is designed to help non-native English language learners strengthen communication skills and cultural/civic proficiencies used in everyday life situations encountered at home, at school, at work, and in the community. The program prepares students to engage in conversations on a variety of subjects beyond that of personal experience, read and understand texts from different genres, and write basic paragraphs. It also prepares students for the advanced level program.

## Complete the following courses:

- AESL 503 BEGINNING ADULT ESL LEVEL 30 Units
- AESL 504 INTERMEDIATE ADULT ESL LEVEL 40 Units


## Anthropology

## Dean: Traci Fahimi

Academic Chair: Wendy Gabriella, JD
Faculty: Wendy Gabriella, JD; Chris Loeffler

## Courses

Anthropology is the study of the organization, behavior, and development of the human species. Physical anthropology examines the fossil remains of ancestral humans and the behavior of primates in order to construct theories of how and why human beings have evolved. Cultural anthropology is concerned with the basic structures of human cultures, particularly with regard to subsistence strategies, social organization, language, religion, and political and economic systems.

## Major

Students majoring in anthropology will focus on the nature and implications of human behavior and interactions through the integration of the four major sub-disciplines of Anthropology. Knowledge and use of the scientific method will allow students to explain evolutionary theory in light o the human fossil record, analyze the relationship between modern humans and non-human primates, and objectively evaluate non-western customs and beliefs. The major is ideal for those who intend a career obliging a high degree of such interaction, particularly of a bi-cultural or multicultural form. Students considering careers in social work, international affairs, teaching, politics, public health, and journalism will find the anthropology major appropriate. Students intending to specialize in anthropology on the professional level almost always attend graduate school, since employment in the field usually requires an advanced degree.

## Program Student Learning Outcomes

Upon completion of the anthropology program, students will be able to

- Describe how the sub-disciplines of Physical Anthropology, Cultural Anthropology, Archeology, and Linguistics (the four-field approach) are integrated and provide a theoretical basis for understanding human behavior past and present.
- Explain evolutionary theory and have an understanding of the fossil record of human evolution as well as the relationship between non-human and human primates.
- Apply the concepts of cultural relativism, a holistic approach, and ethnocentrism to critically evaluate traditional nonWestern customs and beliefs as well as cultural change.
- Identify and explain current archeological fieldwork techniques and the importance of the scientific method in anthropology.
- Describe the relationship between language and culture and how anthropological linguist conducts fieldwork.


## Potential Careers

Examples of careers in anthropology include the following:

- Archaeologist
- Anthropologist
- Corporate Planner
- Forensic Anthropologist
- Government Agency Administrator
- High School or College Teacher
- International Law
- Linguist
- Multicultural Specialist
- Museum Curator
- Public Health Administration
- Researcher


## Anthropology, AA

This program was revised for the August 2017 edition of the IVC catalog. Please consult a counselor if you have any questions.

## Complete the following courses:

- ANTH 1 INTRODUCTION TO PHYSICAL ANTHROPOLOGY 3 Units
or
- ANTH 1H INTRODUCTION TO PHYSICAL ANTHROPOLOGY HONORS 3 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units
or
- ANTH 2H CULTURAL ANTHROPOLOGY HONORS 3 Units
- ANTH 3 CULTURE AND LANGUAGE 3 Units
- ANTH 9 INTRODUCTION TO ARCHEOLOGY 3 Units

Complete 9-10 units from the following:

- ANTH 1L PHYSICAL ANTHROPOLOGY LAB 1 Unit
- ANTH 4 NATIVE AMERICAN CULTURES 3 Units
- ANTH 7 NATIVE AMERICANS OF SOUTHERN CALIFORNIA 3 Units
- ANTH 13 MAGIC, WITCHCRAFT AND RELIGION 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units or
- PSYC 1H INTRODUCTION TO PSYCHOLOGY HONORS 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units
or
- SOC 1H INTRODUCTION TO SOCIOLOGY HONORS 3 Units


## Total Units Required: 21-22

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Anthropology, AA-T

Complete all of the following core courses:

- ANTH 1 INTRODUCTION TO PHYSICAL ANTHROPOLOGY 3 Units or
- ANTH 1H INTRODUCTION TO PHYSICAL ANTHROPOLOGY HONORS 3 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units or
- ANTH 2H CULTURAL ANTHROPOLOGY HONORS 3 Units
- ANTH 3 CULTURE AND LANGUAGE 3 Units
- ANTH 9 INTRODUCTION TO ARCHEOLOGY 3 Units

Select one to two of the following courses (3-7 units):

- BIO 11 HUMAN ANATOMY 4 Units
- ERTH 20 INTRODUCTION TO EARTH SCIENCE 4 Units
- GEOG 12 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 2 Units
- GEOL 1 PHYSICAL GEOLOGY 4 Units
- PSYC 2 RESEARCH METHODS IN PSYCHOLOGY 4 Units

Complete one course from the following (any course not used above):

- ANTH 4 NATIVE AMERICAN CULTURES 3 Units
- ANTH 7 NATIVE AMERICANS OF SOUTHERN CALIFORNIA 3 Units
- ANTH 13 MAGIC, WITCHCRAFT AND RELIGION 3 Units
- GEOG 2 CULTURAL GEOGRAPHY 3 Units
- GEOG 20 GLOBAL ENVIRONMENTAL PROBLEMS 3 Units
- HIST 33 THE HISTORY OF THE MEXICAN AMERICAN PEOPLE 3 Units
- HIST 40 THE HISTORY OF EAST ASIA BEFORE 18003 Units
- HIST 41 THE HISTORY OF EAST ASIA SINCE 18003 Units
- HUM 2 THE CULTURE OF ANCIENT GREECE AND ROME 3 Units
- HUM 21 INTRODUCTION TO ASIAN RELIGIONS 3 Units
- HUM 22 INTRODUCTION TO JUDAISM, CHRISTIANITY, AND ISLAM 3 Units
- PS 6 POLITICS AND GOVERNMENT OF THE MIDDLE EAST 3 Units
- SOC 20 ETHNIC AND MINORITY GROUP RELATIONS 3 Units


## Total Units Required: 18-22

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Art

[^0]
## Courses

The curriculum includes courses in two- and three-dimensional design, drawing, painting, and art history. All courses are designed to develop students' understanding and appreciation of the artist's technical and aesthetic concerns. Studio courses teach students both to expand their basic design, drawing and painting skills and to become more visually aware of their world. These courses are designed for artists of all backgrounds and levels of technical ability. The curriculum in art history focuses on both the art of various world cultures and the critical theory necessary to understand visual culture within the contemporary context of analysis and criticism. Many courses offered in the art curriculum meet general education requirements in fine arts. In addition, they may be taken to satisfy the requirements for the Associate in Arts degree with a major in art.

## Major

Students majoring in art at the lower-division level concentrate on learning the basic theoretical concepts, techniques, skills, and materials of drawing, painting, or watercolor. By learning these basics in a step-by-step process, students develop a better understanding of their powers of observation and self-expression. Students may prepare to transfer into an upper-division program in two-dimensional art. Those anticipating careers in graphic arts, drawing, painting, photography, and advertising will find the major especially helpful. The Arts faculty recommends that the art major not choose an art course to fulfill the general education requirement in Fine Arts and Languages, but explore one of the other arts, such as music, writing, theatre arts, or photography.

## Program Student Learning Outcomes

Upon completion of the studio art program, students will be able to

- Demonstrate artistic and creative growth as a studio artist.
- Demonstrate a basic knowledge of fundamental design, drawing and painting techniques.
- Gain an increased aesthetic awareness and understanding of how to analyze their own and peer artwork from a critical point of view.


## Potential Careers

Examples of careers in art include the following:

- Art Educator
- Commercial Artist
- Gallery and Museum Careers
- Professional Art and Design
- Technical Illustrator


## Campus Art Gallery

The IVC Campus Art Gallery is an instructional space managed by the Art Department. The mission of the gallery is to provide students, faculty, staff and the community with direct access to original works of art that encourage intellectual curiosity, instructional discourse and interdisciplinary dialogue. As a learning laboratory, the gallery provides an interactive space for the study of art in society: creative processes, professional practices, and historical contexts.

The Art Department, in conjunction with the campus art gallery coordinator, develops multiple exhibitions and educational programs annually that showcase the work of students, faculty and artists-at-large. Exhibitions occur throughout the academic calendar year from August through May. For information about curatorial and exhibition opportunities, please contact the IVC Department of Art.

## ART DEPARTMENT PROGRAMS

| ART HISTORY Art History, Theory, and Criticism Applied Museum Studies CORE COURSES ARTH $4 \cdot$ ARTH 25 ARTH 26 - ARTH 27 - ARTH 104 |  |  | DIGITAL MEDIA ART <br> Digital Photography, Graphic Design and Video <br> CORE COURSES <br> DMA $10 \cdot$ DMA 51 • DMA 55 DMA 70 • DMA 80 ART/DMA 191 |  | INTERACTIVE MEDIA ARTS Game Design, Animation, Environment Design and 3D Modeling, Virtual/Augmented Reality and Toy Design CORE COURSES: IMA 40 • IMA 98 |  |  | STUDIO ART <br> Drawing, Painting, and Design <br> CORE COURSES ART 40 • ART 41 • ART 42 ART $80 \cdot$ ART $85 \cdot$ ART 50 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Hesorv } \\ & \text { wstren } \end{aligned}$ | HISTORY NON-WESTERN |  |  | Graphic <br> oveser |  |  |  | оravm | pantin | гмптиакпс |
|  | ARTH22 <br> ARTH 23 |  | PHOT/DMA 51 <br> DMA 70 <br> DMA 75 <br> DMA 165 |  |  | IMA 30 IMA 88 IMA 96 IMA 179 IMA 192 IMA 193 | IMA 46 IMA 189 IMA 194 |  | ART 5 <br> ART 51 <br> ART 52 <br> ART 191 <br> ART 195 | $\begin{aligned} & \text { ART } 60 \\ & \text { ART } 61 \\ & \text { ART } 62 \\ & \text { ART } 64 \\ & \text { ART } 195 \\ & \text { ART } 191 \end{aligned}$ |

## Art, AA

## Complete the following courses:

- ART 40 2-D DESIGN AND COLOR 3 Units
- ART 41 3D DESIGN 3 Units
- ART 50 BEGINNING OIL PAINTING 3 Units
- ART 80 DRAWING FUNDAMENTALS 3 Units
- ART 85 LIFE DRAWING I 3 Units

Complete a total of 6 units from the following courses:

- ARTH 4 INTRODUCTION TO ART THEORY 3 Units
- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units
- ARTH 27 ART HISTORY SURVEY III: NON-WESTERN 3 Units

Complete an additional 6 units from the following course areas.

Courses chosen from within these areas must not have been counted in the courses above:

- ARTH 4 INTRODUCTION TO ART THEORY 3 Units


## Art History Courses: 3 Units

- ARTH 22 SURVEY OF ASIAN ART 3 Units
- ARTH 23 AFRICAN AND OCEANIC ART 3 Units
- ARTH 24 ANCIENT ART 3 Units
- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units
- ARTH 27 ART HISTORY SURVEY III: NON-WESTERN 3 Units
- ARTH 28 CONTEMPORARY ART HISTORY 3 Units
- ARTH 29 19TH AND EARLY 20TH CENTURY ART 3 Units
- ARTH 30 RENAISSANCE AND BAROQUE ART 3 Units
- ARTH 31 MEDIEVAL ART 3 Units
- ARTH 32 HISTORY OF WORLD ARCHITECTURE 3 Units

Drawing Courses: 3 Units

- ART 81 REPRESENTATIONAL DRAWING 3 Units
- ART 82 ADVANCED DRAWING 3 Units
- ART 85 LIFE DRAWING I 3 Units
- ART 86 ADVANCED LIFE DRAWING 3 Units
- ART 186 DRAWING THE HEAD AND HANDS 3 Units
- ART 195 ILLUSTRATION 3 Units

Painting Courses: 3 Units

- ART 51 INTERMEDIATE PAINTING 3 Units
- ART 52 ADVANCED PAINTING 3 Units
- ART 53 BEGINNING LIFE PAINTING 3 Units

Total Units Required: 27
Recommended electives:

- MUS 20 MUSIC APPRECIATION 3 Units
- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 21 THEATRE APPRECIATION-CONTEMPORARY 3 Units
- TA 26 GREAT PLAYS: RENAISSANCE TO CONTEMPORARY 3 Units
- TA 27 INTRODUCTION TO FINE ARTS IN THEATER 3 Units
- any course in photography

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Studio Arts for Transfer, AA-T

Complete all of the following core courses:

- ART 40 2-D DESIGN AND COLOR 3 Units
- ART 41 3D DESIGN 3 Units
- ART 80 DRAWING FUNDAMENTALS 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units

Complete one of the following courses:

- ARTH 22 SURVEY OF ASIAN ART 3 Units
- ARTH 23 AFRICAN AND OCEANIC ART 3 Units
- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units

Complete an additional 9 units from three of the following course areas:

Drawing:

- ART 81 REPRESENTATIONAL DRAWING 3 Units
or
- ART 85 LIFE DRAWING I 3 Units
or
- ART 86 ADVANCED LIFE DRAWING 3 Units


## Painting:

- ART 50 BEGINNING OIL PAINTING 3 Units

Printmaking:

- ART 60 INTRODUCTION TO PRINTMAKING 3 Units


## Digital Art:

- DMA 55 GRAPHIC DESIGN I 3 Units


## Other Studio Art Courses:

- ART 51 INTERMEDIATE PAINTING 3 Units or
- DMA 65 TYPOGRAPHY 3 Units


## Total Units Required: 24

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Art History

Dean: Joseph Poshek
Academic Chair, Visual Arts: Julie Kirk
Faculty: Amy Grimm

## Courses

The curriculum includes courses in art theory, appreciation, history and methodology, and museum studies. All courses are designed to incorporate the necessary components required in the academic development of a comprehensive art historical and methodological understanding. Art historical topics address the Western canon from antiquity to the post-modern world, as well as the art of Africa, Oceania, Asia, and the Americas. Most of the courses offered in the art history curriculum meet general education requirements in fine arts. They may also be taken to satisfy the requirements for the Associate in Arts degree in Art History (AA) and the Associate in Arts degree in Art History for Transfer (AA-T).

## Major

Students majoring in art history at the lower-division level are provided with a rigorous and rich foundation in the history of art, critically examining the importance of artistic traditions in the study of human cultures. Through a variety of historical periods, students learn to identify, analyze, and interpret works of art and architecture as they reflect not only individual achievement but also the political, social, religious, and economic interests of the society from which they emerge. Students may enroll in the art history program to prepare for transfer into an upper-division program in art history.

For further information about the art history program students may log on to academics.ivc.edu/arts/visual/history or email ivcarthistory@ivc.edu.

## Program Student Learning Outcomes

Upon completion of the art history program, students will be able to

- Successfully complete objective glossary quizzes that evaluate his/her developed vocabulary maturation as it relates to the discipline of art history.
- Define and articulate appropriate art historical terminologies that are utilized in the analyses of aesthetic works of art and architecture.
- Produce a written analysis of a work of art to demonstrate his/her ability to articulate knowledge of the subject matter and its relating social, economic, religious, political framework.
- Identify and analyze the denotative characteristics in developing aesthetic works of art and architecture, as their subjects reflect the broader community's cultural issues and preferences: social, economic, religious and political.
- Recognize, articulate, and critically interpret the connotative qualities in aesthetic works of art and architecture as they reflect the issues of meaning and intellectual expression.
- Participate in class discussion designed to evaluate their critical skills of aesthetic observation and academic articulation as it relates to the subject matter.
- Complete written papers that reflect an understanding and appreciation of various art historical methodologies.
- Demonstrate general knowledge of principal art historical personalities (artists, patrons, sponsors) in major periods and locations.
- Demonstrate a rudimentary understanding of the technical processes involved in standard historical art making.
- Through assigned readings, develop knowledge of foundational sources necessary to the construction of a critical perspective in the studies of art history and visual culture.


## Potential Careers

Majors in art history are afforded opportunities in a number of art-related fields ranging from education to business. Examples of careers in art history and/or museum studies include the following:

- Appraiser or Investor
- Art Consultant
- Art Educator
- Art Publisher or Critic
- Arts Librarian
- Artist Representative
- Conservator
- Gallery Director
- Legal Professional
- Lobbyist or Organizer
- Museum Curator
- Museum Technician


## Recommended Art History Tracks

## Track One: Western

Pre-Modern to Early Modern

Year One, Fall: ARTH 4, ARTH 104
Year One, Spring: ARTH 24, ARTH 25
Year Two, Fall: ARTH 26, ARTH 31
Year Two, Spring: ARTH 27, ARTH 30, ARTH 32

## Track Two: Western

Late Modern to Postmodern

Year One, Fall: ARTH 4, ARTH 104<br>Year One, Spring: ARTH 25, ARTH 32<br>Year Two, Fall: ARTH 26, ARTH 29<br>Year Two, Spring: ARTH 27, ARTH 28

## Track Three: Non-Western

Prehistory to Postmodern

Year One, Fall: ARTH 4, ARTH 104
Year One, Spring: ARTH 22, ARTH 25
Year Two, Fall: ARTH 23, ARTH 26
Year Two, Spring: ARTH 24, ARTH 27, ARTH 28

## Art History for Transfer, AA-T

Complete all of the following core courses:

- ART 80 DRAWING FUNDAMENTALS 3 Units
- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units

Complete one of the following courses:

- ARTH 22 SURVEY OF ASIAN ART 3 Units
- ARTH 23 AFRICAN AND OCEANIC ART 3 Units
- ARTH 27 ART HISTORY SURVEY III: NON-WESTERN 3 Units

Complete one of the following courses:

- ART 40 2-D DESIGN AND COLOR 3 Units
- ART 41 3D DESIGN 3 Units
- ART 50 BEGINNING OIL PAINTING 3 Units
- ART 51 INTERMEDIATE PAINTING 3 Units
- ART 82 ADVANCED DRAWING 3 Units
- ART 85 LIFE DRAWING I 3 Units
- DMA 55 GRAPHIC DESIGN I 3 Units

Complete one course from the following (any course not used above):

- ARTH 1 HISTORY OF PHOTOGRAPHY 3 Units
- ARTH 4 INTRODUCTION TO ART THEORY 3 Units
- ARTH 22 SURVEY OF ASIAN ART 3 Units
- ARTH 23 AFRICAN AND OCEANIC ART 3 Units
- ARTH 24 ANCIENT ART 3 Units
- ARTH 28 CONTEMPORARY ART HISTORY 3 Units
- ARTH 29 19TH AND EARLY 20TH CENTURY ART 3 Units
- ARTH 30 RENAISSANCE AND BAROQUE ART 3 Units
- ARTH 31 MEDIEVAL ART 3 Units
- ARTH 32 HISTORY OF WORLD ARCHITECTURE 3 Units
- ARTH 110 INTRODUCTION TO MUSEUMS 3 Units


## Total Units Required: 18

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Art History, AA

Complete all of the following core courses:

- ARTH 4 INTRODUCTION TO ART THEORY 3 Units
- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units
- ARTH 27 ART HISTORY SURVEY III: NON-WESTERN 3 Units
- ARTH 104 INTRODUCTION TO ART MEDIA

Complete a total of 9 units from the following courses:

- ARTH 1 HISTORY OF PHOTOGRAPHY 3 Units
- ARTH 22 SURVEY OF ASIAN ART 3 Units
- ARTH 23 AFRICAN AND OCEANIC ART 3 Units
- ARTH 24 ANCIENT ART 3 Units
- ARTH 28 CONTEMPORARY ART HISTORY 3 Units
- ARTH 29 19TH AND EARLY 20TH CENTURY ART 3 Units
- ARTH 30 RENAISSANCE AND BAROQUE ART 3 Units
- ARTH 31 MEDIEVAL ART 3 Units
- ARTH 32 HISTORY OF WORLD ARCHITECTURE 3 Units


## Total Units Required: 24

## Recommended electives:

- ARTH 110 INTRODUCTION TO MUSEUMS 3 Units
- ARTH 115 COLLECTIONS MANAGEMENT 3 Units
- HUM 1 INTRODUCTION TO HUMANITIES 3 Units
- HUM 21 INTRODUCTION TO ASIAN RELIGIONS 3 Units
- HUM 22 INTRODUCTION TO JUDAISM, CHRISTIANITY, AND ISLAM 3 Units
- HUM 50 MYTHOLOGY 3 Units
- HUM 70 HISTORY OF FILM 3 Units
- HUM 71 INTRODUCTION TO FILM 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Curatorial Studies, COP

This certificate of proficiency is intended to help students to qualify for entry-level museum positions such as curatorial assistant, collections manager assistant, gallery assistant, and registration assistant. Courses examine the fundamentals of curatorial practice including research and writing, exhibition development and design, and collection development and care.

## Complete the following courses:

- ARTH 110 INTRODUCTION TO MUSEUMS 3 Units
- ARTH 115 COLLECTIONS MANAGEMENT 3 Units
- ARTH 120 CURATORIAL PRACTICE 3 Units


## Total Units Required: 9

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Museum Education and Visitor Services, COP

This certificate of proficiency is intended to help prepare students to qualify for entry-level museum positions such as education assistant, outreach coordinator assistant, visitor assistant, docent, and museum teacher assistant. Courses examine the fundamentals of communications, writing age-based museum curriculum, developing outreach programs and materials, evaluating the visitor experience, and implementing improvements.

Complete the following courses:

- ARTH 110 INTRODUCTION TO MUSEUMS 3 Units
- ARTH 125 VISITOR SERVICES AND MUSEUM EDUCATION 3 Units
- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units
or
- COMM 1H COMMUNICATION FUNDAMENTALS HONORS 3 Units

Total Units Required: 9
To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Associate in Arts Degrees with an Area of Emphasis

## Business Emphasis, AA

The intent of this degree is to prepare students for careers and/or higher education in business and computer information, generally, or in specific disciplines within this broad designation.

This degree emphasizes training that will enable students to lead, direct, plan, organize, and respond to a variety of challenges. It stresses problem-solving skills involved in making managerial, financial, and technical decisions based on available data, tools, and resources. Courses in the program study the elements of creative thinking and interpretation used in the process of transmitting information graphically. Students are acquainted with the concepts, theories, and terminology critical to their area of emphasis.

Complete a minimum of 18 units from the following courses listed below, including a minimum of 12 units selected from at least three of the business science disciplines. Students may only complete up to 3 units of CWE 168 from the related disciplines. See an IVC counselor for course substitution if a course is not available.

## Business Science Disciplines

Accounting:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units
- ACCT 112.1 SPREADSHEETS I 1.5 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units
- ACCT 114 BUSINESS MATHEMATICS 3 Units
- ACCT 203 COST ACCOUNTING 3 Units
- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units
- ACCT 205 PAYROLL ACCOUNTING AND TAXATION 3 Units
- ACCT 206 INDIVIDUAL INCOME TAXATION - FEDERAL AND STATE 3 Units
- ACCT 207 BUSINESS INCOME TAXATION - FEDERAL AND STATE 3 Units
- ACCT 209 INTERNAL CONTROLS UNDER SARBANES-OXLEY 3 Units
- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units


## Computer Information Management:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 112.1 SPREADSHEETS I
- CIM 112.2 SPREADSHEETS II
- CIM 113
- CIM 114
- CIM 201A INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD I
- CIM 201B INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD II
- CIM 201C INTRODUCTION TO COMPUTERS, KEYBOARDING, AND WORD PROCESSING III
- CIM 203.1
- CIM 206.1
- CIM 208.1
- CIM 209 INTRODUCTION TO OUTLOOK
- CIM 210.1 WORD PROCESSING I
- CIM 210.2 WORD PROCESSING II
- CIM 212.3 SPREADSHEETS III - CERTIFICATION
- CIM 214.1
- CIM 217
- CIM 221.1
- CIM 221.2
- CIM 222.1
- CIM 224.1
- CIM 225.1
- CIM 230.1
- CIM 230.2
- CIM 241
- CIM 242.1
- CIM 242.2
- CIM 242.3
- CIM 243.1
- CIM 243.2
- CIM 245.1
- CIM 246.1
- CIM 249.1
- CIM 251.1
- CIM 260.1
- CIM 260.2
- CIM 261.1
- CIM 263.1
- CIM 263.2
- CIM 263.3
- CIM 263.4


## Economics:

- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
- ECON 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units
- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units
- ECON 105 PERSONAL FINANCIAL PLANNING 3 Units


## Management:

- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units
- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units
- MGT 103
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 115 DIVERSITY, BUSINESS AND THE WORKPLACE 3 Units
- MGT 120 PRINCIPLES OF BUSINESS MANAGEMENT 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units
- MGT 160
- MGT 217
- MGT 235 ADVERTISING 3 Units
- MGT 282 RETAIL MANAGEMENT 3 Units
- MGT 288 HUMAN RESOURCE MANAGEMENT 3 Units


## Real Estate:

- RE 170 REAL ESTATE PRINCIPLES 3 Units
- RE 172 REAL ESTATE PRACTICE 3 Units
- RE 174A LEGAL ASPECTS OF REAL ESTATE I 3 Units
- RE 175 REAL ESTATE FINANCE 3 Units
- RE 176A REAL ESTATE APPRAISAL I 3 Units
- RE 190 ESCROW I 3 Units
- RE 195 PROPERTY MANAGEMENT I 3 Units


## Related Disciplines

Students may count a maximum of 6 units from the courses listed below toward the 18 -unit requirement.

- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units
- CWE 168
- PHIL 2 INTRODUCTION TO ETHICS 3 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units


## Total Units Required: 18

## To obtain the Associate in Arts degree with an emphasis in Business, students will have to:

1. Complete
A. The CSU General Education Certification pattern, a minimum of 39 units. OR
B. The IGETC Certification pattern, a minimum of 36 units. OR
C. The IVC Associate Degree General Education pattern, a minimum of 31 units.
2. Complete a minimum of 18 units from the courses listed above, including a minimum of 12 units selected from at least three of the business science disciplines.
3. Complete any elective, degree-applicable courses needed to bring the total number of units to 60 .
4. Maintain a 2.0 overall GPA and a grade of " $\mathrm{A}, "$ " B, " " $\mathrm{C}, "$ or " P " in all courses taken in the area of emphasis.
5. Satisfy the residency and competency requirements as stated on Associate Degree Graduation Requirements. Students are advised to consult with faculty in the fields of interest within the emphasis to identify career areas and to consult with a counselor to clarify graduation requirements and/or to determine specific transfer paths. The courses within each concentration described in the emphasis represent clusters of courses designed to prepare students for common traditional university major areas of study, for certificate programs, or for technical education certificates.

## Program Student Learning Outcomes

Upon completion of the AA degree with emphasis in business, students will be able to

- Describe the relationship between profit and risk, and discuss how businesses and nonprofit organizations can raise the standard of living for all.
- Discuss the importance of the global market and the roles of comparative advantage and absolute advantage in global trade.
- Explain why effective communication, i.e. the sharing of information, helps an organization gain a competitive advantage, and describe the communication process.
- Explain the role of operations management in achieving superior quality, efficiency, and responsiveness to customers.
- Demonstrate the use of current technology resources to collect and analyze data and to access, evaluate, and present information in solving problems and making decisions.
- Apply computing techniques to solve common business problems, to manipulate and interpret data, and to disseminate the data, methodology, analysis, and results.


## Fine Arts Appreciation Emphasis, AA

The intent of this degree is to prepare students for careers and/or higher education in the appreciation of the fine arts, generally, or in specific disciplines within this broad designation.

This degree emphasizes the methods and values used in the study of aesthetic works and creative endeavors. Students develop the necessary critical skills to contemplate, interpret, theorize, create, and perform effectively. Students develop a contextual appreciation for aesthetic meaning and significance, collaborative expression, theoretical study, and cross-disciplinary investigation.

## Complete a minimum of $\mathbf{1 8}$ units from the following courses, with at least one course taken in three different disciplines

## Application and Performance Courses

## Camera Arts:

- DMA 51 BEGINNING DIGITAL PHOTOGRAPHY 3 Units
- DMA 55 GRAPHIC DESIGN I 3 Units
- DMA 120
- DMA 130
- DMA 140
- DMA 195 ILLUSTRATION 3 Units
- PHOT 51 BEGINNING DIGITAL PHOTOGRAPHY 3 Units


## Dance:

- DNCE 1 INTRODUCTION TO DANCE 2 Units
- DNCE 1A INTRODUCTION TO DANCE A 1 Unit
- DNCE 1B INTRODUCTION TO DANCE B 1 Unit
- DNCE 6 BALLET I 2 Units
- DNCE 7 BALLET II 2 Units
- DNCE 12 MODERN DANCE I 2 Units
- DNCE 13 MODERN DANCE II 2 Units
- DNCE 17 JAZZ DANCE I - OVERVIEW 2 Units
- (DNCE 17A/DNCE 17B)
- DNCE 18 JAZZ DANCE II 2 Units
- (DNCE 18A/DNCE 18B)
- DNCE 22 TAP DANCE I 1 Unit
- DNCE 23 TAP DANCE II 1 Unit
- DNCE 27 HIP HOP/COMMERCIAL DANCE 1 Unit
- DNCE 33 MIDDLE EASTERN DANCE I 1 Unit
- DNCE 34 MIDDLE EASTERN DANCE II 1 Unit
- DNCE 65
- DNCE 142
- DNCE 170


## Communication Studies:

- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units
- COMM 30 INTRODUCTION TO ORAL INTERPRETATION 3 Units OR
- TA 30 INTRODUCTION TO ORAL INTERPRETATION 3 Units
- COMM 106A FORENSIC ACTIVITY A 1 Unit
- COMM 106B FORENSIC ACTIVITY B 2.5 Units
- COMM 106C FORENSIC ACTIVITY C 4 Units

Music:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
- MUS 54 PIANO I 2 Units
- MUS 55 PIANO II 2 Units
- MUS 56 PIANO III 2 Units
- MUS 57 PIANO IV 2 Units
- MUS 80 VOICE I 2 Units
- MUS 81 VOICE II 2 Units
- MUS 82 VOICE III 2 Units
- MUS 85 GUITAR III 2 Units

Studio Arts:

- ART 40 2-D DESIGN AND COLOR 3 Units
- ART 41 3D DESIGN 3 Units
- ART 50 BEGINNING OIL PAINTING 3 Units
- ART 51 INTERMEDIATE PAINTING 3 Units
- ART 52 ADVANCED PAINTING 3 Units
- ART 80 DRAWING FUNDAMENTALS 3 Units
- ART 81 REPRESENTATIONAL DRAWING 3 Units
- ART 82 ADVANCED DRAWING 3 Units
- ART 85 LIFE DRAWING I 3 Units
- ART 86 ADVANCED LIFE DRAWING 3 Units
- ART 186 DRAWING THE HEAD AND HANDS 3 Units
- ART 195 ILLUSTRATION 3 Units

Theatre Arts:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 40 INTRODUCTION TO THEATRE DESIGN 3 Units


## History and Theory Courses

Art History:

- ARTH 1 HISTORY OF PHOTOGRAPHY 3 Units
- ARTH 4 INTRODUCTION TO ART THEORY 3 Units
- ARTH 20 ART APPRECIATION 3 Units
- ARTH 22 SURVEY OF ASIAN ART 3 Units
- ARTH 23 AFRICAN AND OCEANIC ART 3 Units
- ARTH 24 ANCIENT ART 3 Units
- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units
- ARTH 27 ART HISTORY SURVEY III: NON-WESTERN 3 Units
- ARTH 28 CONTEMPORARY ART HISTORY 3 Units
- ARTH 29 19TH AND EARLY 20TH CENTURY ART 3 Units
- ARTH 30 RENAISSANCE AND BAROQUE ART 3 Units
- ARTH 104 INTRODUCTION TO ART MEDIA
- ARTH 110 INTRODUCTION TO MUSEUMS 3 Units
- ARTH 115 COLLECTIONS MANAGEMENT 3 Units
- ARTH 130 MUSEUM TECHNOLOGIES 1 Unit
- ARTH 150 HISTORY OF GRAPHIC DESIGN

Dance:

- DNCE 55 CHOREOGRAPHY I 3 Units
- DNCE 77 DANCE HISTORY: TWENTIETH CENTURY 3 Units
- DNCE 85 MUSIC FOR DANCE 3 Units

Music:

- MUS 1 THE BASICS OF MUSIC 3 Units
- MUS 3 HARMONY I 4 Units
- MUS 20 MUSIC APPRECIATION 3 Units
- MUS 21 WORLD MUSIC 3 Units
- MUS 27 HISTORY OF JAZZ 3 Units
- MUS 28 HISTORY OF ROCK MUSIC 3 Units


## Theatre Arts:

- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 21 THEATRE APPRECIATION-CONTEMPORARY 3 Units
- TA 25 GREAT PLAYS: PRIMITIVE TO RENAISSANCE 3 Units
- TA 26 GREAT PLAYS: RENAISSANCE TO CONTEMPORARY 3 Units


## Total Units Required: 18

To obtain the Associate in Arts degree with an emphasis in Fine Arts Appreciation, students will have to:

1. Complete
A. The CSU General Education Certification pattern, a minimum of 39 units. OR
B. The IGETC Certification pattern, a minimum of 36 units.

OR
C. The IVC Associate Degree General Education pattern, a minimum of 31 units.
2. Complete a minimum of 18 units from the courses listed in the emphasis, with at least one course taken in three different disciplines.
3. Complete any elective, degree-applicable courses needed to bring the total number of units to 60 .
4. Maintain a 2.0 overall GPA and a grade of "A," "B," "C," or "P" in all courses taken in the area of emphasis.
5. Satisfy the residency and competency requirements as stated on Associate Degree Graduation Requirements. Students are advised to consult with faculty in the fields of interest within the emphasis to identify career areas and to consult with a counselor to clarify graduation requirements and/or to determine specific transfer paths. The courses within each concentration described in the emphasis represent clusters of courses designed to prepare students for common traditional university major areas of study, for certificate programs, or for technical education certificates.

## Program Student Learning Outcomes

Upon completion of the AA degree with emphasis in fine arts appreciation, students will be able to

- Gain an increased aesthetic awareness and appreciation of the arts from a critical point of view.


## Humanities and Languages Emphasis, AA

The intent of this degree is to prepare students for careers and/or higher education in the humanities and languages, generally, or in specific disciplines within this broad designation.

This degree emphasizes the methods and values of humanistic study. Students investigate the role that language, philosophy, literature, religion, history, and the arts play in the shaping of human cultures. The curriculum also encourages students to consider how the central traditions, values, ideas, and texts, and the aesthetic concepts of a culture, reflect the human condition.

Complete a minimum of 18 units from the following courses, with at least one course taken in three different disciplines:

Chinese*:

- CHI 2 BEGINNING CHINESE II 5 Units

French*:

- FR 2 BEGINNING FRENCH II 5 Units [or 2A+2B]
- FR 3 INTERMEDIATE FRENCH 5 Units
- FR 4 INTERMEDIATE FRENCH 5 Units
- FR 10 INTERMEDIATE CONVERSATIONAL FRENCH 3 Units

History:

- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 2 THE HISTORY OF WORLD CIVILIZATIONS SINCE 15003 Units
- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units
- HIST 21 AMERICAN HISTORY SINCE THE CIVIL WAR 3 Units
- HIST 24 AMERICA AFTER THE BOMB: 1945 TO THE PRESENT 3 Units
- HIST 33 THE HISTORY OF THE MEXICAN AMERICAN PEOPLE 3 Units
- HIST 40 THE HISTORY OF EAST ASIA BEFORE 18003 Units
- HIST 41 THE HISTORY OF EAST ASIA SINCE 18003 Units
- HIST 51 WOMEN IN AMERICAN HISTORY 3 Units

Humanities:

- HUM 2 THE CULTURE OF ANCIENT GREECE AND ROME 3 Units
- HUM 3 THE CULTURE OF MEDIEVAL AND RENAISSANCE EUROPE 3 Units
- HUM 4 THE CULTURE OF THE MODERN WORLD: 1700 TO THE PRESENT 3 Units
- HUM 20 RELIGION AND THE QUEST FOR MEANING 3 Units
- HUM 21 INTRODUCTION TO ASIAN RELIGIONS 3 Units
- HUM 22 INTRODUCTION TO JUDAISM, CHRISTIANITY, AND ISLAM 3 Units
- HUM 27 WORLD RELIGIONS 3 Units
- HUM 50 MYTHOLOGY 3 Units
- HUM 70 HISTORY OF FILM 3 Units
- HUM 71 INTRODUCTION TO FILM 3 Units
- HUM 72 FILM AND AMERICAN CULTURE 3 Units
- HUM 73 FILM GENRE STUDIES 3 Units
- HUM 74 FILM AND LITERATURE 3 Units

Japanese*:

- JA 2 BEGINNING JAPANESE II 5 Units [or 2A+2B]
- JA 3 INTERMEDIATE JAPANESE I 5 Units
- JA 4 INTERMEDIATE JAPANESE II 5 Units
- JA 10 INTERMEDIATE CONVERSATIONAL JAPANESE 3 Units
- JA 21 INTRODUCTION TO JAPANESE CULTURE 3 Units
- JA 23 JAPANESE ANIME AND MANGA 3 Units


## Journalism:

- JRNL 40 MASS MEDIA AND SOCIETY 3 Units


## Literature:

- LIT 1 INTRODUCTION TO LITERATURE 3 Units
- LIT 20 SURVEY OF BRITISH LITERATURE TO 17763 Units
- LIT 21 BRITISH LITERATURE FROM BLAKE TO THE PRESENT 3 Units
- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units
- LIT 24 CONTEMPORARY LITERATURE 3 Units
- LIT 30 INTRODUCTION TO THE NOVEL 3 Units
- LIT 31 INTRODUCTION TO SHORT FICTION 3 Units
- LIT 32 INTRODUCTION TO POETRY 3 Units
- LIT 33 INTRODUCTION TO DRAMA 3 Units
- LIT 40 INTRODUCTION TO THE HEBREW BIBLE (OLD TESTAMENT) 3 Units
- LIT 41 INTRODUCTION TO THE NEW TESTAMENT 3 Units
- LIT 43 INTRODUCTION TO SHAKESPEARE 3 Units
- LIT 46 INTERCULTURAL LITERATURE 3 Units
- LIT 110

Philosophy:

- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- PHIL 2 INTRODUCTION TO ETHICS 3 Units
- PHIL 3 INTRODUCTION TO LOGIC 3 Units
- PHIL 5 POLITICAL PHILOSOPHY 3 Units
- PHIL 10 ANCIENT PHILOSOPHY 3 Units
- PHIL 11 MODERN PHILOSOPHY 3 Units

Reading:

- RD 174

Sign Language*:

- SIGN 22 BEGINNING AMERICAN SIGN LANGUAGE II 4 Units
- SIGN 23 INTERMEDIATE AMERICAN SIGN LANGUAGE 4 Units

Spanish*:

- SPAN 2 BEGINNING SPANISH II 5 Units
- SPAN 3 INTERMEDIATE SPANISH I 5 Units
- SPAN 4 INTERMEDIATE SPANISH II 5 Units
- SPAN 10 INTERMEDIATE CONVERSATIONAL SPANISH 3 Units


## Writing:

- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units
- WR 10 INTRODUCTION TO CREATIVE WRITING 3 Units
- WR 11 WRITING SHORT FICTION 3 Units
- WR 13 WRITING POETRY 3 Units


## Total Units Required: 18

* LANGUAGE COURSES, PLEASE NOTE: Students who have acquired fluency in one language may elect to begin or continue in a second language, or to focus on the culture and literature related to the first language.

To obtain the Associate in Arts degree with an emphasis in Humanities and Languages, students will have to:

1. Complete
A. The CSU General Education Certification pattern, a minimum of 39 units. OR
B. The IGETC Certification pattern, a minimum of 36 units. OR
C. The IVC Associate Degree General Education pattern, a minimum of 31 units.
2. Complete a minimum of 18 units from the courses listed in the emphasis, with at least one course taken in three different disciplines.
3. Complete any elective, degree-applicable courses needed to bring the total number of units to 60 .
4. Maintain a 2.0 overall GPA and a grade of "A," "B," "C," or "P" in all courses taken in the area of emphasis.
5. Satisfy the residency and competency requirements as stated on Associate Degree Graduation Requirements. Students are advised to consult with faculty in the fields of interest within the emphasis to identify career areas and to consult with a counselor to clarify graduation requirements and/ or to determine specific transfer paths. The courses within each concentration described in the emphasis represent clusters of courses designed to prepare students for common traditional university major areas of study, for certificate programs, or for technical education certificates.

## Program Student Learning Outcomes

Upon completion of the AA degree with emphasis in humanities and languages, students will be able to

- Analyze a representative text and write a well-supported, clearly articulated argument.
- Read primary tex ts in their target language for general comprehension.


## Liberal Studies: Teacher Education Emphasis, AA

The intent of this degree is to prepare students for careers and/or higher education in the field of education, particularly in elementary school teaching. It is adapted from the requirements of the state-approved Multiple Subject Credential Program.

The degree emphasizes the integration of concepts from the arts and humanities, literature, natural sciences, and social sciences, offering a broad foundation in diverse disciplines. This course of study fosters the student's understanding and appreciation of how human knowledge and experience have evolved in historical and cultural contexts. The degree also stresses the development of skills in quantitative reasoning, critical thinking, and communication in the English language, both orally and in writing.

Complete a minimum of 18 units from the following courses, with at least one course taken in three different disciplines:

Arts and Humanities:

- ARTH 20 ART APPRECIATION 3 Units
- DNCE 12 MODERN DANCE I 2 Units
- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- MUS 1 THE BASICS OF MUSIC 3 Units
- MUS 20 MUSIC APPRECIATION 3 Units
- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 27 INTRODUCTION TO FINE ARTS IN THEATER 3 Units


## English Communication:

- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units
- COMM 2 PERSUASION 3 Units
- COMM 3 ARGUMENTATION AND DEBATE 3 Units
- PHIL 3 INTRODUCTION TO LOGIC 3 Units
- RD 174 CRITICAL READING
- WR 1 COLLEGE WRITING 14 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units


## Literature:

- LIT 1 INTRODUCTION TO LITERATURE 3 Units
- LIT 7 SURVEY OF CHILDREN'S LITERATURE 3 Units
- LIT 20 SURVEY OF BRITISH LITERATURE TO 17763 Units
- LIT 21 BRITISH LITERATURE FROM BLAKE TO THE PRESENT 3 Units
- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units


## Mathematics:

- CS 6A COMPUTER DISCRETE MATHEMATICS I 3 Units OR
- MATH 30 COMPUTER DISCRETE MATHEMATICS I 3 Units
- CS 6B COMPUTER DISCRETE MATHEMATICS II 3 Units

OR

- MATH 31 COMPUTER DISCRETE MATHEMATICS II 3 Units
- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- MGT 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units
- MATH 2 PRE-CALCULUS 5 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units
- MATH 4A ANALYTIC GEOMETRY AND CALCULUS III 5 Units
- MATH 8 COLLEGE ALGEBRA 5 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units
- MATH 24 ELEMENTARY DIFFERENTIAL EQUATIONS 4 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units
- MATH 124 TRIGONOMETRY 3 Units
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units


## Natural Sciences:

- BIO 1 THE LIFE SCIENCES 3 Units OR
- BIO 1 THE LIFE SCIENCES AND
- BIO 1L THE LIFE SCIENCES LABORATORY 1 Unit
- ERTH 20 INTRODUCTION TO EARTH SCIENCE 4 Units
- GEOL 1 PHYSICAL GEOLOGY 4 Units
- PHYS 20 THE IDEAS AND EVENTS OF PHYSICS 4 Units

Social Sciences:

- GEOG 2 CULTURAL GEOGRAPHY 3 Units
- GEOG 3 WORLD REGIONAL GEOGRAPHY 3 Units
- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units OR
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units OR
- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units
- HIST 21 AMERICAN HISTORY SINCE THE CIVIL WAR 3 Units
- PS 1 AMERICAN GOVERNMENT 3 Units
- PSYC 13 PSYCHOLOGY OF REASONING AND PROBLEM SOLVING 3 Units


## Total Units Required: 18

## To obtain the Associate in Arts degree with an emphasis in Liberal Studies:

 Teacher Education, students will have to:1. Complete
A. The CSU General Education Certification pattern, a minimum of 39 units. OR
B. The IGETC Certification pattern, a minimum of 36 units. OR
C. The IVC Associate Degree General Education pattern, a minimum of 31 units.
2. Complete a minimum of 18 units from the courses listed in the emphasis, with at least one course taken in three different disciplines.
3. Complete any elective, degree-applicable courses needed to bring the total number of units to 60 .
4. Maintain a 2.0 overall GPA and a grade of "A," "B," "C," or "P" in all courses taken in the area of emphasis.
5. Satisfy the residency and competency requirements as stated on Associate Degree Graduation Requirements. Students are advised to consult with a counselor to clarify graduation requirements and/or to determine specific transfer paths and transfer requirements. Students intending to transfer are generally advised to complete either the CSU General Education Certification pattern or the IGETC Certification pattern.

## Program Student Learning Outcomes

Upon completion of the AA degree with emphasis in liberal studies, students will be able to

- Develop an historical and aesthetic appreciation of human expression and diversity as it reflects the human experience.
- Conceptualize and apply theoretical constructs within the real world as it affects our physical experience.
- Identify, analyze and understand social phenomenon as it affects the human condition.


## Natural Sciences and Mathematics Emphasis, AA

The intent of this degree is to prepare students for careers and/or higher education in the natural sciences and mathematics, generally, or in specific disciplines within this broad designation.

This degree includes training in the scientific method, the fundamental principles of natural science, and the analytical reasoning of mathematics. Emphases of courses for this degree include mathematical, physical and life science concepts, principles, theories, and laws. Some courses acquaint students with the methods of conducting scientific investigations in laboratory field settings through observation, while other courses require students to construct logical arguments, make valid inferences, and acquire quantitative skills essential to many other disciplines.

## Complete a minimum of 18 units from the following courses, with at least one course taken in three different disciplines:

NOTE: For emphases in the sciences and math, a minimum of two courses must have a laboratory or field component. Students interested in pursuing their education in the sciences are advised to complete more laboratory and/or field courses.

## Biology:

- BIO 1 THE LIFE SCIENCES 3 Units AND
- BIO 1L THE LIFE SCIENCES LABORATORY 1 Unit
- BIO 2 PLANT BIOLOGY 4 Units
- BIO 5 PRINCIPLES OF ZOOLOGY
- BIO 10 BIOCHEMISTRY FOR HEALTH SCIENCES 4 Units
- BIO 15 GENERAL MICROBIOLOGY 5 Units
- BIO 93 INTEGRATED BIOLOGY: FROM DNA TO ORGANISMS
- BIO 94 FROM ORGANISMS TO ECOSYSTEMS
- BIO 97 GENETICS AND EVOLUTIONARY BIOLOGY 3 Units
- BIO 99 MOLECULAR BIOLOGY AND BIOCHEMISTRY 3 Units
- BIO 99L MOLECULAR BIOLOGY LABORATORY 1 Unit

Chemistry:

- CHEM 1A GENERAL CHEMISTRY I 5 Units AND
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- CHEM 12A ORGANIC CHEMISTRY 5 Units AND
- CHEM 12B ORGANIC CHEMISTRY 5 Units


## Computer Science:

- CS 36 C PROGRAMMING 3 Units
- CS 37 C++ PROGRAMMING 3 Units


## Earth Sciences:

- ERTH 20 INTRODUCTION TO EARTH SCIENCE 4 Units

Field Studies and Research:

- BIO 13 INTRODUCTION TO INDEPENDENT RESEARCH: BIOLOGICAL AND HEALTH SCIENCES
- BIO 19 MARINE BIOLOGY 4 Units
- BIO 30 CALIFORNIA WILDLIFE AND WILDLANDS 3 Units
- BIO 101 FIELD STUDIES: COASTAL MARINE ECOSYSTEMS 1 Unit
- BIO 103 FIELD STUDIES: MOUNTAIN ECOSYSTEMS 1 Unit
- BIO 104 FIELD STUDIES: DESERT ECOSYSTEMS 1 Unit
- BIO 110
- BIO 140 LAB RESEARCH IN GEOLOGICAL AND BIOLOGICAL SCIENCES
- GEOG 102 GEOGRAPHY FIELD STUDIES: WESTERN UNITED STATES 2 Units
- GEOL 140 LAB RESEARCH IN GEOLOGICAL AND BIOLOGICAL SCIENCES
- GEOL 170 GEOLOGY FIELD STUDIES: NATIONAL PARKS AND MONUMENTS 1 Unit
- GEOL 181 GEOLOGY FIELD STUDIES: COASTAL AND OFFSHORE GEOLOGY 1 Unit
- GEOL 186 GEOLOGY FIELD STUDIES: GEOLOGY OF CALIFORNIA 1 Unit


## Geology:

- GEOL 1 PHYSICAL GEOLOGY 4 Units
- GEOL 2 HISTORICAL GEOLOGY 4 Units
- GEOL 3 GEOLOGY OF CALIFORNIA 3 Units


## Mathematics:

- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units
- MATH 4A ANALYTIC GEOMETRY AND CALCULUS III 5 Units
- MATH 24 ELEMENTARY DIFFERENTIAL EQUATIONS 4 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units


## Marine Science:

- MS 20 INTRODUCTION TO OCEANOGRAPHY 4 Units


## Physics:

- PHYS 2A INTRODUCTION TO PHYSICS 4 Units AND
- PHYS 2B INTRODUCTION TO PHYSICS 4 Units

OR

- PHYS 4A GENERAL PHYSICS 4 Units AND
- PHYS 4B GENERAL PHYSICS 4 Units
- PHYS 4C GENERAL PHYSICS 4 Units


## Total Units Required: 18

## To obtain the Associate in Arts degree with an emphasis in Natural Sciences and Mathematics, students will have to:

1. Complete
A. The CSU General Education Certification pattern, a minimum of 39 units. OR
B. The IGETC Certification pattern, a minimum of 36 units. OR
C. The IVC Associate Degree General Education pattern, a minimum of 31 units.
2. Complete a minimum of 18 units from the courses listed in the emphasis, with at least one course taken in three different disciplines.
3. Complete any elective, degree-applicable courses needed to bring the total number of units to 60 .
4. Maintain a 2.0 overall GPA and a grade of "A," "B," "C," or "P" in all courses taken in the area of emphasis.
5. Satisfy the residency and competency requirements as stated on Associate Degree Graduation Requirements. Students are advised to consult with faculty in the fields of interest within the emphasis to identify career areas and to consult with a counselor to clarify graduation requirements and/or to determine specific transfer paths. The courses within each
concentration described in the emphasis represent clusters of courses designed to prepare students for common traditional university major areas of study, for certificate programs, or for technical education certificates.

## Program Student Learning Outcomes

Upon completion of the AA degree with emphasis in natural sciences and mathematics, students will be able to

- Demonstrate comprehension of chemical and biological reality by understanding how fundamental natural science principles underlie the huge variety of natural phenomena and their interconnectedness.
- Apply the scientific method to a concept/lab/current situation by demonstrating the ability to ask a relevant question, create a hypothesis that addresses the question, gather data using either experimentation and or observation, interpret the data and form a conclusion.
- Demonstrate knowledge of form, function, mechanism, organization, scale, hierarchy, diversity and evolution pertaining to the natural sciences.
- Inspect data and apply basic statistics to their analysis.


## Social and Behavioral Sciences Emphasis, AA

The intent of this degree is to prepare students for careers and/or higher education in the social sciences, generally, or in specific disciplines within this broad designation.

This degree emphasizes the nature of individual and collective human behavior: our interactions; the political, economic, social, and psychological structures and institutions of human beings; and the challenges of developing and sustaining interpersonal and intercultural relationships. Students employ the fundamental principles of the scientific method and apply data collection,synthesis, and analysis to enhance their ability to explain how groups and subgroups operate and to make responsible political, moral, and social decisions.

Complete a minimum of 18 units from the courses listed below, including a minimum of 9 units selected from at least three of the social and behavioral science disciplines.

## Social and Behavioral Science Disciplines

## Administration of Justice:

- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units
- AJ 4 CRIMINAL LAW I 3 Units
- AJ 5 THE COMMUNITY AND THE JUSTICE SYSTEM 3 Units
- AJ 8 JUVENILE LAW AND PROCEDURES 3 Units
- AJ 105 INTRODUCTION TO INVESTIGATION 3 Units
- AJ 106 POLICE FIELD OPERATIONS 3 Units
- AJ 111 LAW ENFORCEMENT ADMINISTRATION 3 Units
- AJ 112 POLICE SUPERVISION 3 Units
- AJ 113 CONSTITUTIONAL LAW AND THE JUSTICE SYSTEM
- AJ 119 INTRODUCTION TO CORRECTIONS
- AJ 150 REPORT WRITING FOR ADMINISTRATION OF JUSTICE 3 Units
- AJ 161 ORGANIZED CRIME AND CRIMINAL ENTERPRISE IN AMERICA
- AJ 250 P.O.S.T. CERTIFIED-ARREST, SEARCH, SEIZURE, AND FIREARMS 3 Units

Anthropology:

- ANTH 1 INTRODUCTION TO PHYSICAL ANTHROPOLOGY 3 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units
- ANTH 3 CULTURE AND LANGUAGE 3 Units
- ANTH 4 NATIVE AMERICAN CULTURES 3 Units
- ANTH 7 NATIVE AMERICANS OF SOUTHERN CALIFORNIA 3 Units
- ANTH 9 INTRODUCTION TO ARCHEOLOGY 3 Units


## Economics:

- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
- ECON 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units
- ECON 20 INTRODUCTORY ECONOMICS 3 Units
- ECON 105 PERSONAL FINANCIAL PLANNING 3 Units


## Geography:

- GEOG 1 PHYSICAL GEOGRAPHY 3 Units
- GEOG 2 CULTURAL GEOGRAPHY 3 Units
- GEOG 3 WORLD REGIONAL GEOGRAPHY 3 Units
- GEOG 38 CALIFORNIA GEOGRAPHY 3 Units
- GEOG 102 GEOGRAPHY FIELD STUDIES: WESTERN UNITED STATES 2 Units


## History:

- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 2 THE HISTORY OF WORLD CIVILIZATIONS SINCE 15003 Units
- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units
- HIST 21 AMERICAN HISTORY SINCE THE CIVIL WAR 3 Units
- HIST 24 AMERICA AFTER THE BOMB: 1945 TO THE PRESENT 3 Units
- HIST 33 THE HISTORY OF THE MEXICAN AMERICAN PEOPLE 3 Units
- HIST 40 THE HISTORY OF EAST ASIA BEFORE 18003 Units
- HIST 41 THE HISTORY OF EAST ASIA SINCE 18003 Units
- HIST 51 WOMEN IN AMERICAN HISTORY 3 Units


## Human Development:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 101 OBSERVATION AND ASSESSMENT OF YOUNG CHILDREN 3 Units
- HD 104 INFANT AND TODDLER DEVELOPMENT
- HD 105 INFANT-TODDLER PROGRAMS 3 Units
- HD 110 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 160 ADVANCED CURRICULUM PLANNING 3 Units
- HD 181 PRACTICUM: EARLY CHILDHOOD PROGRAMS 3 Units
- HD 266 PROGRAM PLANNING FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 267 STAFF DEVELOPMENT TOPICS FOR SCHOOL-AGE PROGRAMS 1 Unit
- HD 268 GUIDANCE AND DISCIPLINE FOR SCHOOL-AGE CHILDCARE 1 Unit
- HD 269 HOLIDAY AND SUMMER PROGRAMS FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 270 ART, MUSIC, AND DRAMA FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 271 RECREATION, SPORTS AND FITNESS FOR SCHOOL-AGE CHILDREN 1 Unit


## Political Science:

- PS 1 AMERICAN GOVERNMENT 3 Units
- PS 3 CALIFORNIA GOVERNMENT AND POLITICS 3 Units
- PS 4 INTRODUCTION TO POLITICAL SCIENCE 3 Units
- PS 5 POLITICAL PHILOSOPHY 3 Units
- PS 6 POLITICS AND GOVERNMENT OF THE MIDDLE EAST 3 Units
- PS 7 THE POLITICS OF COMMUNIST AND POST-COMMUNIST STATES 3 Units
- PS 12 COMPARATIVE POLITICS 3 Units
- PS 14 INTERNATIONAL RELATIONS 3 Units
- PS 17 LATIN AMERICAN POLITICS AND GOVERNMENT 3 Units
- PS 41 THE HISTORY OF EAST ASIA SINCE 18003 Units


## Psychology:

- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units
- PSYC 2 RESEARCH METHODS IN PSYCHOLOGY 4 Units
- PSYC 3 PHYSIOLOGICAL PSYCHOLOGY 3 Units
- PSYC 5 PSYCHOLOGICAL ASPECTS OF HUMAN SEXUALITY 3 Units
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- PSYC 13 PSYCHOLOGY OF REASONING AND PROBLEM SOLVING 3 Units
- PSYC 30 SOCIAL PSYCHOLOGY 3 Units
- PSYC 37 ABNORMAL BEHAVIOR 3 Units
- PSYC 106 DEVELOPMENTAL PSYCHOLOGY: LIFESPAN
- PSYC 133 PSYCHOLOGY OF ADJUSTMENT
- PSYC 160 PSYCHOLOGY AS A MAJOR AND A PROFESSION


## Sociology:

- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units
- SOC 2 SOCIAL PROBLEMS 3 Units
- SOC 10 INTRODUCTION TO MARRIAGE AND FAMILY 3 Units
- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- SOC 19 THE SOCIOLOGY OF SEX AND GENDER 3 Units
- SOC 20 ETHNIC AND MINORITY GROUP RELATIONS 3 Units
- SOC 30 SOCIAL PSYCHOLOGY 3 Units


## Women's Studies:

- WS 10 INTRODUCTION TO WOMEN'S STUDIES
- WS 20 WOMEN IN CONTEMPORARY SOCIETY


## Related Disciplines

Students may count a maximum of 9 units from the courses listed below toward the 18-unit requirement.

Accounting:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units


## Biology:

- BIO 1 THE LIFE SCIENCES 3 Units AND
- BIO 1L THE LIFE SCIENCES LABORATORY 1 Unit
- BIO 30 CALIFORNIA WILDLIFE AND WILDLANDS 3 Units

Chemistry:

- CHEM 1A GENERAL CHEMISTRY I 5 Units

Computer Science:

- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units


## Cooperative Work Experience:

- AJ 168 COOPERATIVE WORK EXPERIENCE: ADMINISTRATION OF JUSTICE 1 Unit
- ECON 167 COOPERATIVE WORK EXPERIENCE: ECONOMICS 1 Unit
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 1 Unit
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 1 Unit
- PSYC 167 COOPERATIVE WORK EXPERIENCE: PSYCHOLOGY 1 Unit


## Geology:

- GEOL 1 PHYSICAL GEOLOGY 4 Units

Health:

- HLTH 1 HEALTH EDUCATION 3 Units

Mathematics:

- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units
- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units

Nutrition:

- NUT 1 PRINCIPLES OF NUTRITION 3 Units

Philosophy:

- PHIL 2 INTRODUCTION TO ETHICS 3 Units

Statistics:

- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- MATH 10 INTRODUCTION TO STATISTICS 3 Units OR
- MGT 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units

Writing:

- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units

Total Units Required: 18
To obtain the Associate in Arts degree with an emphasis in Social and Behavioral Sciences, students will have to:

1. Complete
A. The CSU General Education Certification pattern, a minimum of 39 units. OR
B. The IGETC Certification pattern, a minimum of 36 units. OR
C. The IVC Associate Degree General Education pattern, a minimum of 31 units.
2. Complete a minimum of 18 units from the courses listed in the emphasis, including a minimum of 9 units selected from at least three of the social and behavioral science disciplines.
3. Complete any elective, degree-applicable courses needed to bring the total number of units to 60 .
4. Maintain a 2.0 overall GPA and a grade of "A," "B," "C," or "P" in all courses taken in the area of emphasis.
5. Satisfy the residency and competency requirements as stated on Associate Degree Graduation Requirements. Students are advised to consult with faculty in the fields of interest within the emphasis to identify career areas and to consult with a counselor to clarify graduation requirements and/or to determine specific transfer paths. The courses within each concentration described in the emphasis represent clusters of courses designed to prepare students for common traditional university major areas of study, for certificate programs, or for technical education certificates.

## Program Student Learning Outcomes

Upon completion of the AA degree with emphasis in social and behavioral sciences, students will be able to

- Demonstrate knowledge of research methodology.
- Demonstrate knowledge of global social and political perspectives.
- Demonstrate knowledge of historical and contemporary global issues.


## Astronomy/Physics

Dean: Lianna Zhao, MD
Academic Chair: Alec Sim, PhD
Faculty: Justin Komine; Alec Sim, PhD

## Courses

The curriculum in Physical Science includes courses in Physics, Chemistry, and Mathematics. The curriculum is designed to cultivate the student's analytical capacity and qualitative/\quantitative reasoning in regard to the origin, composition, and mechanics of the universe; the movement of objects in relation with gravitational, magnetic, and electric forces; the interaction between matter and energy; the behavior of light; and the physical characteristics of substance.

The courses offered fulfill the Natural Science and Mathematics requirements, as part of the lower-division requirements, for the various CSU and UC schools. The matriculated Natural Science courses, as part of the Associate in Arts degree in Physical Science, span the disciplines of Physics and Chemistry.

## Major

While a baccalaureate degree is recommended preparation for those considering professional careers related to physical science, the completion of the associate degree program will demonstrate commitment to the field and will provide comprehensive preparation for upper-division work. The purpose of this degree is to provide a solid background in the areas of physical science. By completing the necessary courses, students will be able to continue their baccalaureate studies in chemistry, physics, engineering and many other fields within the physical sciences.

## Program Student Learning Outcomes

## Astronomy

Upon completion of the astronomy program, students will be able to

- Develop understanding of the principle areas of physical science and astronomy including concepts and methods of inquiry at an appropriate level. Subjects include, but are not limited to, the scientific method, historical development of astronomy, laws of motion and gravity, electromagnetic energy, solar system, stellar dynamics, galaxies and cosmology.
- Successfully solve conceptual and numerical problems of a physical nature through the recognition of type of problem, analysis of relevant information, proper application of concepts and techniques applying math through pre-algebra.
- Effectively communicate in writing the fundamental concepts and techniques of astronomy and the physical sciences at an appropriate level.
- Demonstrate appropriate lab skills including the proper use of basic measuring devices. Students will read and accurately interpret lab directions and analyze data for relevance and adherence to theory.
- Students will choose and use appropriate tabular and/or graphical methods to present and analyze physical data.


## Physics

Upon completion of the physics program, students will be able to

- Observe processes, repeatable physical events, and interactions and identify their physical origin in a consistent and analytic manor.
- Establish cause-and-effect relationships between physical interactions through progressive scientific modeling using a variety of mathematical techniques.
- Demonstrate the ability to verify models developed through systematic scientific measurement.
- Effectively communicate information, scientific or otherwise, in both written and verbal form.
- Demonstrate the ability to apply foundational knowledge of experimental physics to the solution of problems in physics.


## Potential Careers (For Non-Transfer Degree Recipients)

Examples of careers in the physical sciences include the following:

- Aerospace Engineer
- Astronomer
- Astrophysicist
- Defense Planner
- Educator
- Geophysicist
- Laboratory Technician
- Medical Physicist
- National Laboratory Researcher
- Navigation Equipment Specialist
- Nuclear Physicist
- Physicist
- Planetarium Exhibit Planner/Guide
- Research Scientist or Assistant
- Satellite Data Analyst
- Scientific Photographer
- Seismologist
- Telescope Operator
- Test Engineer


## Physical Science, AA

## Complete the following courses:

- CHEM 1A GENERAL CHEMISTRY I 5 Units
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units
- PHYS 4A GENERAL PHYSICS 4 Units
- PHYS 4B GENERAL PHYSICS 4 Units


## Total Units Required: 28

## Recommended Electives:

- MATH 24 ELEMENTARY DIFFERENTIAL EQUATIONS 4 Units
or
- MATH 24H ELEMENTARY DIFFERENTIAL EQUATIONS HONORS 4 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Physics for Transfer, AS-T

The Associate in Science in Physics for Transfer degree (AS-T Physics) will provide students preparation for a seamless transfer to a California State University (CSU) to complete a bachelor's degree in Physics. The curriculum in Physics includes courses in Mathematics and Physics. The curriculum is designed to attract and cultivate the student's imagination, analytical capacity, and deductive reasoning regarding the physical nature of the universe. Topics of study include classical mechanics, electricity,
magnetism, electricity, magnetism, electrodynamics, the interaction between matter and energy, the quantum mechanical and atomic nature of the universe, and the physical properties of matter. Specially, courses are designed to build mathematical tools and foundational physical knowledge that provides the basis necessary to advance in the student's education and career.

## Complete the following courses:

- PHYS 4A GENERAL PHYSICS 4 Units
- PHYS 4B GENERAL PHYSICS 4 Units
- PHYS 4C GENERAL PHYSICS 4 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units
- MATH 4A ANALYTIC GEOMETRY AND CALCULUS III 5 Units


## Total Units Required: 27

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Biological Sciences

Dean: Lianna Zhao, MD

Academic Chair, Biological Sciences, Environmental Studies: Jefferey Kaufmann, PhD
Faculty: Devon Bradley, PhD; Meredith Dorner; David Fretz; Diana Hurlbut, PhD; Jefferey Kaufmann, PhD; Emalee Mackenzie; Amy McWhorter, PhD; Pierre Nguyen; Roland Rodriguez; Katherine Schmeidler, PhD; Justin Wright

## Courses

The School of Life Sciences at Irvine Valley College offers a wide range of courses in the biological sciences as well as courses in environmental studies. Introductory courses focus on theories and concepts in five primary areas: cellular and molecular biology, genetics, evolution, ecology, and whole organism biology. More specialized courses examine extensions of these basic principles as they relate to a variety of specific areas of study, including botany, zoology, human anatomy, human physiology, cellular biology, microbiology, natural history, and marine biology. Students may complete courses within the department in order to fulfill general education requirements, to satisfy prerequisites for health-related programs such as nursing, to meet graduation requirements at prospective transfer institutions, or to complete the Associate in Arts degree with a major in biology or health sciences.

## Major

The requirements for majors in the life sciences are intended to provide a solid foundation for the student who wishes to pursue further study at the baccalaureate level and for some graduate-level programs. They are also intended for students who plan to enter a preprofessional or professional program in a health-related field. The faculty strongly recommends that students without a firm foundation in basic biological principles complete both Biology 93 and Biology 94 in preparation for the more specialized courses. In addition to the core courses for the major or health-related fields, an introduction to other sciences is usually recommended and necessary for more advanced study. The biology faculty therefore suggests that students complete appropriate courses in chemistry, physics, and mathematics concurrently with biology core courses. Students should refer to the requirements of prospective institutions or seek advice from a member of the biology faculty or a counselor before choosing electives. As the job market in the biological sciences and related fields changes, the faculty recommends that students also seek guidance as they select their electives.

## Program Student Learning Outcomes

## Biology

Upon completion of the biology program, students will be able to

- Communicate scientific processes and ideas effectively in written and oral forms.
- Demonstrate understanding of the mechanisms driving evolution, the role of evolution as the central unifying concept of biology and describe similarities and differences of the major taxonomic groups.
- Effectively apply current technology and scientific methodologies for problem solving.
- Identify and explain relationships between form and function of biological structures at the molecular cellular, organismal, and ecosystem levels.
- Locate and evaluate various types of scientific information including primary research articles, mass media sources and world wide web.
- Recognize and apply basic ethical principles to biological practices and understand the role of scientists and biological science in society.
- Demonstrate understanding of how organisms interact with one another and with their environment, and explain interactions at the population and community levels.
- Demonstrate understanding of the fundamental biological processes of metabolism, homeostasis, growth, reproduction, development, genetics and whole organism physiology.
- Apply the metric system using standard laboratory equipment to systematically collect, organize, interpret, and assess data in graphs, tables or figures then integrate the acquired knowledge to make informed judgments and conclusions.


## Potential Careers

An AA degree in biology will prepare students for entry into certificate or technical training programs in:

- Nursing
- Biotechnology
- Dental Assisting/Hygiene
- Emergency Medical Technology
- Paramedic Training
- Laboratory Research
- Physical Therapy Assisting

An AA degree in biology will also allow students to continue their education at a four-year institution, where earning a BA degree in biological sciences can prepare them for careers in:

- Public Health
- Nutrition
- Biotechnology
- Laboratory and Field Research
- Pharmaceutical Sales
- Land Management
- Environmental Studies
- Entry into professional schools that provide training in medicine, dentistry, pharmacy, optometry, physician's assistant, and veterinary medicine


## Biology for Transfer, AA-T

The requirements for majors in the life sciences are intended to provide a solid foundation for the student who wishes to pursue further study at the baccalaureate level and for some graduate-level programs. They are also intended for students who plan to enter a pre-professional or professional program in a health-related field.

## Complete the following courses:

- BIO 16 CELLULAR BIOLOGY 4 Units
- BIO 94 FROM ORGANISMS TO ECOSYSTEMS

OR

- BIO 2 PLANT BIOLOGY 4 Units

AND

- BIO 5 ANIMAL BIOLOGY 4 Units
- CHEM 1A GENERAL CHEMISTRY I 5 Units
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units OR
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- PHYS 2A INTRODUCTION TO PHYSICS 4 Units AND
- PHYS 2B INTRODUCTION TO PHYSICS 4 Units OR
- PHYS 4A GENERAL PHYSICS 4 Units AND
- PHYS 4B GENERAL PHYSICS 4 Units


## Total Units Required: 31-35

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.
Note:

See an IVC counselor for course substitution if a course is not available.

## Biology, AA

Complete the following courses:

- BIO 93 INTEGRATED BIOLOGY: FROM DNA TO ORGANISMS
- BIO 94 FROM ORGANISMS TO ECOSYSTEMS
- BIO 97 GENETICS AND EVOLUTIONARY BIOLOGY 3 Units
- BIO 99 MOLECULAR BIOLOGY AND BIOCHEMISTRY 3 Units

Select 6-10 units from the following courses to complete a total of 20-24 units

- BIO 11 HUMAN ANATOMY 4 Units
- BIO 12 HUMAN PHYSIOLOGY 4 Units
- BIO 13 INTRODUCTION TO INDEPENDENT RESEARCH: BIOLOGICAL AND HEALTH SCIENCES
- BIO 15 GENERAL MICROBIOLOGY 5 Units
- BIO 19 MARINE BIOLOGY 4 Units
or
- BIO 19H MARINE BIOLOGY HONORS 4 Units
- BIO 30 CALIFORNIA WILDLIFE AND WILDLANDS 3 Units
- BIO 44 BIOLOGY OF HUMAN SEXUALITY 3 Units
- BIO 55 INTRODUCTION TO ECOLOGY: THEORY AND APPLICATION 3 Units
- CHEM 1A GENERAL CHEMISTRY I 5 Units and
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- CHEM 12A ORGANIC CHEMISTRY 5 Units and
- CHEM 12B ORGANIC CHEMISTRY 5 Units

Total Units Required: 20-24
To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

Note:

See an IVC counselor for course substitution if a course is not available.

## Biotechnology - Lab Assistant, COA

Biotechnology is the use of microorganisms or biological substances, such as enzymes, to solve problems; develop or make useful products; or preform specific manufacturing processes. The Biotechnology Laboratory Assistant Certificate of achievement is designed for students who wish to obtain the skills required to gain entry level employment in the biotechnology industry. Upon completion of the Biotechnology Laboratory Assistant Certificate program students will be eligible to obtain entry level employment as laboratory assistants in biotechnology industries such as pharmaceutical labs or research and development laboratories. There are no prerequisites or enrollment limitations for the program. Upon successful completion of the program students will have acquired the following knowledge and skills: Apply the scientific method and appropriate experimental design $\bullet$ Maintain an industry standard laboratory notebook. Use and complete correct Standard Operating Procedures (SOPs), Good Manufacturing Procedures (GMPs) and other required documentation common in a biotechnology laboratory. Demonstrate ability to accurately and safely preform standard lab techniques such as pipetting, metrology, aseptic technique. Maintain a safe, clean contamination-free and clutter-free environment. Communicate information in an appropriate way. Perform calculations relating to work function. Select and use appropriate computer tools.

Complete the following courses:

- BIOT 70 INTRODUCTION TO BIOTECHNOLOGY 3 Units
- BIOT 70L INTRODUCTORY BIOTECHNOLOGY LABORATORY 1 Unit
- BIOT 273 BIOTECHNOLOGY A: BASIC LAB SKILLS 4 Units
- CHEM 3 FUNDAMENTAL CHEMISTRY 4 Units


## Total Units Required: 12

## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

Note:

See an IVC counselor for course substitution if a course is not available.

## Biotechnology Biomanufacturing Technician, COP

This certificate provides the skills and knowledge needed for positions such as biomanufacturing operators, media preparation assistants, purification assistants or manufacturing technicians in the field of biomanufacturing. The emphasis is on preparation and collection of samples, proper use of lab equipment in contamination-free environments, and standard operating procedures in the biomanufacturing industry.

## Complete the following courses:

- BIOT 70 INTRODUCTION TO BIOTECHNOLOGY 3 Units
- BIOT 70L INTRODUCTORY BIOTECHNOLOGY LABORATORY 1 Unit
- BIOT 273 BIOTECHNOLOGY A: BASIC LAB SKILLS 4 Units
- BIOT 274 BIOTECHNOLOGY B: PROTEINS 4 Units
- BIOT 276 QUALITY AND REGULATORY COMPLIANCE IN BIOSCIENCE 2 Units


## Total Units Required: 14

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Health Sciences, AA

This major is appropriate for students who plan to enter training in one of the health professions, including nursing, physical therapy, occupational therapy, dental hygiene, physician assisting, and health sciences.

Complete the following courses:

- BIO 11 HUMAN ANATOMY 4 Units
- BIO 12 HUMAN PHYSIOLOGY 4 Units
- BIO 15 GENERAL MICROBIOLOGY 5 Units
- BIO 10 BIOCHEMISTRY FOR HEALTH SCIENCES 4 Units

OR

- CHEM 4 INTRODUCTION TO GENERAL \& ORGANIC CHEMISTRY \& BIOCHEMISTRY 5 Units

Complete one of the following courses:

- BIO 71 STEM CELLS AND SOCIETY 3 Units
- BIO 72 HUMAN GENETICS AND MEDICINE 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units or
- PSYC 1H INTRODUCTION TO PSYCHOLOGY HONORS 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units
or
- SOC 1H INTRODUCTION TO SOCIOLOGY HONORS 3 Units
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units
or
- PSYC 10H STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES HONORS 3 Units or
- MATH 10 INTRODUCTION TO STATISTICS 3 Units


## Total Units Required: 20-21

## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

Note:

See an IVC counselor for course substitution if a course is not available.

## Business/Management

## Dean: Traci Fahimi

Academic Chair: Bennet Tchaikovsky, CPA, Esq.
Faculty: Roopa Mathur, PhD; June McLaughlin, Esq., LLM, LLM; John Russo, MBA; Daniel Scott, DBA, MBA; Bob Urell

## Courses

Students in lower-division management courses focus on the fundamental and intermediate principles and practices of management. Management students receive training that enables them to lead, direct, plan, organize, and make critical managerial decisions. Such training is widely applicable, and knowledge of management principles is essential to all individuals entering the various business fields.

## Major

The program in business management at Irvine Valley College prepares students to enter management positions in the public and private sector in such areas as retail, wholesale, trades, banking, import/export, small business and government. The curriculum includes lower division courses that are transferable to four-year colleges and universities for those attending to pursue a baccalaureate degree. Completion of this program will give students knowledge and understanding of business management within related fields in the industry.

## Program Student Learning Outcomes

## Business Administration

Upon completion of the business administration program, students will be able to

- Relate the concept of comparative advantage to the production possibility curve.
- Explain real-world events using supply and demand.
- Identify and prepare basic financial statements and explain how they interrelate.
- Describe different types of cost behavior in relation to production and sales volume.
- Describe the effects of the commerce clause on the government's regulation of business.


## Business Management

Upon completion of the business management program, students will be able to

- Integrate basic management theories into supervisory and management functions.
- Differentiate threshold issues involved in the legal, ethical, and social responsibilities of management.


## Manufacturing Assistant

Upon completion of the business management program, students will be able to

- Identify various production processes and describe techniques that improve productivity, including computer-aided design and manufacturing, flexible manufacturing, lean manufacturing, and mass customization.
- Describe operations management planning issues including facility location, facility layout, materials requirement planning, purchasing, just-in-time inventory control, and quality control.


## Retail Management (Certificate of Achievement)

Upon completion of the business management program, students will be able to

- Describe examples of a market penetration, retail format development, market expansion, and diversification growth strategies that a retail company might use.


## Supervision

Upon completion of the business management program, students will be able to

- Compare and contrast job design approaches that increase work efficiency versus work motivation, and describe three strategies for improving employee motivation through job design.
- Identify various barriers (noise) to effective communication, and describe strategies for getting your message across and engaging in active listening.


## Potential Careers (For Non-Transfer Degree Recipients)

- Accounting
- Advertising and Marketing
- Construction
- Distribution
- Financial Services
- Health Care
- Insurance
- Logistics
- Real Estate
- Retail
- Travel and Hospitality

Upon completion of the baccalaureate degree, students will be prepared for careers in specialized areas such as:

- Marketing
- Advertising
- Sales
- General Management
- Accounting
- Financial Services
- Entrepreneurship
- Human Resources Management
- Purchasing
- Customer Relations Management

Upon completion of the associate degree, students will be prepared for various entry-level positions within these same organizations, for promotion from technical and specialty job functions into management positions, and/or for transfer to a baccalaureate program.

## Business Administration for Transfer, AS-T

This curriculum provides an opportunity to achieve an Associate in Science Degree in Business Administration for Transfer to the California State University System (CSU) while completing the first and second year requirements for transfer to a four-year institution. A baccalaureate degree is recommended preparation for those considering professional careers in business. Complete of this curriculum will demonstrate commitment to the field and provide comprehensive preparation for upper-division work. This program is designed specifically for the California State University system. Each CSU school, however, reserves a right to accept students with AS-T degree into some (not all) specific specialization under the BS in Business Administration. Lower Division requirements for the University of California system and private four-year colleges vary by transfer school.

## Complete the following required core courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units


## List A: Complete one of the following courses:

OR

- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units

List B: Complete two of the following courses:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units OR
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units OR
- MGT 104 BUSINESS COMMUNICATION 3 Units

Total Units Required: 26-27
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Business Administration, AA

Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units

Complete at least two courses from the following:

- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units
- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units

Total Units Required: 20-21

## Recommended Electives:

- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units
- MATH 9
- PHIL 2 INTRODUCTION TO ETHICS 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Business Management, AS

Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units or
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units


## Total Units Required: 22

## Recommended Electives:

- ACCT 114 BUSINESS MATHEMATICS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 117 SOCIAL MEDIA MARKETING 3 Units

OR

- ENTR 117 SOCIAL MEDIA MARKETING 3 Units
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units OR
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units

OR

- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units
- MGT 115 DIVERSITY, BUSINESS AND THE WORKPLACE 3 Units
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 1 Unit
- MGT 288 HUMAN RESOURCE MANAGEMENT 3 Units
- WR 1 COLLEGE WRITING 14 Units

OR

- WR 1H COLLEGE WRITING 1 HONORS 4 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Business Management, COA

Complete the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units OR
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units


## Total Units Required: 22

## Recommended Electives:

- ACCT 114 BUSINESS MATHEMATICS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II $\mathbf{1 . 5}$ Units
- CIM 117 SOCIAL MEDIA MARKETING 3 Units /
- ENTR 117 SOCIAL MEDIA MARKETING 3 Units
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units OR
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units OR
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units
- MGT 115 DIVERSITY, BUSINESS AND THE WORKPLACE 3 Units
- MGT 117
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 1 Unit
- MGT 288 HUMAN RESOURCE MANAGEMENT 3 Units
- WR 1 COLLEGE WRITING 14 Units OR
- WR 1H COLLEGE WRITING 1 HONORS 4 Units


## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Entrepreneurial Planning and Presentation, COP

This Certificate of Proficiency is intended to help prepare students interested in pursuing entrepreneurship with the planning and presentation tools needed to develop and communicate a business idea, strategy, and analysis of business objectives.

Complete the following courses:

- ENTR 200 PATHWAYS TO SUCCESS 0 Units
- ENTR 241 THE SUCCESSFUL BUSINESS PLAN 2 Units
- ENTR 242 PERSUASIVE PRESENTATIONS 2 Units


## Total Units Required: 5

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Entrepreneurship Skills, COP

This certificate includes courses that prepare students to discover and develop internal and external characteristics of entrepreneurial success, create a strategy for taking advantage of opportunity, and to take action by starting a business or work as self-employed individuals.

Complete the following courses:

- ENTR 117 SOCIAL MEDIA MARKETING 3 Units
- ENTR 200 PATHWAYS TO SUCCESS 0 Units
- ENTR 201 CREATIVITY AND IDEA GENERATION 1 Unit
- ENTR 221 MONEY, ACCOUNTING AND FINANCE FOR ENTREPRENEURS 2 Units
- ENTR 222 BUSINESS STRUCTURE AND LEGAL REQUIREMENTS 1 Unit
- ENTR 223 BUILDING THE ENTREPRENEURIAL TEAM 2 Units
- ENTR 241 THE SUCCESSFUL BUSINESS PLAN 2 Units
- ENTR 160 ENTREPRENEURSHIP: MANAGING YOUR BUSINESS 3 Units OR
- ENTR 211 BUSINESS MODELS: THE DESIGN AND DELIVERY OF VALUE 2 Units AND
- ENTR 224 OPERATIONS MANAGEMENT FOR ENTREPRENEURS 1 Unit


## Total Units Required: 16

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Idea Development and Opportunity Recognition for Entrepreneurs, COP

This certificate of proficiency is intended to help students who are interested in pursuing entrepreneurship to develop new ideas and recognize opportunities as a foundation for creating a new business.

Complete the following courses:

- ENTR 200 PATHWAYS TO SUCCESS 0 Units
- ENTR 201 CREATIVITY AND IDEA GENERATION 1 Unit
- ENTR 202 INNOVATIONS AND OPPORTUNITIES 2 Units

Total Units Required: 4
To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Manufacturing Assistant, AS

Complete the following courses:

- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 2 Units or
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 3 Units or
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 4 Units
- MGT 203 BUSINESS ENGLISH 3 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units

Complete 6 units from the following courses:

- ACCT 112.1 SPREADSHEETS I 1.5 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units
- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units


## Total Units Required: 20-22

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Manufacturing Assistant, COA

Complete the following courses:

- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 2 Units or
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 3 Units or
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 4 Units
- MGT 203 BUSINESS ENGLISH 3 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units

Complete 6 units from the following courses:

- ACCT 112.1 SPREADSHEETS I 1.5 Units
- ACCT 112.2 SPREADSHEETS II 1.5 Units
- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units


## Total Units Required: 20-22

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Research Tools for Entrepreneurs, COP

This certificate of proficiency is intended to help students understand and use research tools and processes used in validating business ideas and marketing strategies.

Complete the following courses:

- ENTR 200 PATHWAYS TO SUCCESS 0 Units
- ENTR 211 BUSINESS MODELS: THE DESIGN AND DELIVERY OF VALUE 2 Units
- ENTR 212 MARKET VALIDATION AND RESEARCH 1 Unit


## Total Units Required: 4

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Retail Management, COA

The Retail management certificate program, designed by managers of major retail corporations, prepares individuals to be effective managers or to be promoted to management in the retail industry. Retail experience is a plus, but is not required to successfully complete this program. Courses assist students in understanding the scope of the retail manager's job and the requirements for success. Completion of the certificate enhances the student's opportunities for entry-level employment as well as advancement in a variety of retail careers. The Western Association of Food Chains (WAFC) has endorsed this program. Current grocery industry associates are encouraged to contact their Human Resources office for details on the WAFC program.

## Group A-Foundation Courses

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units


## Group B-Intermediate Courses

- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units
- MGT 120 PRINCIPLES OF BUSINESS MANAGEMENT 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units


## Group C-Advanced Courses

- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 282 RETAIL MANAGEMENT 3 Units
- MGT 288 HUMAN RESOURCE MANAGEMENT 3 Units


## Total Units Required: 24

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Supervision, AS

Complete a minimum of 18 units from the following courses:

- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 201A INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD I 1 Unit
- ENTR 217 Social Media Marketing
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 203 BUSINESS ENGLISH 3 Units
- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units OR
- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units


## Total Units Required: 18

## Recommended Electives:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 114 BUSINESS MATHEMATICS 3 Units
- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 114 Database
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 1 Unit
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Supervision, COA

Complete a minimum of 18 units from the following courses:

- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 201A INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD I 1 Unit
- ENTR 217 Social Media Marketing
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 125 ORGANIZATIONAL BEHAVIOR 3 Units
- MGT 203 BUSINESS ENGLISH 3 Units
- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units

OR

- MGT 102 PUBLIC SPEAKING FOR BUSINESS 3 Units


## Total Units Required: 18

## Recommended Electives:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 114 BUSINESS MATHEMATICS 3 Units
- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 114 Database
- MGT 168 COOPERATIVE WORK EXPERIENCE: MANAGEMENT 1 Unit
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Understanding Entrepreneurial Operations, COP

This certificate of proficiency is intended to help students develop knowledge, skills, and resources in the areas of financial management, legal considerations, product and service operations, and personnel management associated with starting and running a small business.

## Complete the following courses:

- ENTR 200 PATHWAYS TO SUCCESS 0 Units
- ENTR 221 MONEY, ACCOUNTING AND FINANCE FOR ENTREPRENEURS 2 Units
- ENTR 222 BUSINESS STRUCTURE AND LEGAL REQUIREMENTS 1 Unit
- ENTR 223 BUILDING THE ENTREPRENEURIAL TEAM 2 Units
- ENTR 224 OPERATIONS MANAGEMENT FOR ENTREPRENEURS 1 Unit


## Total Units Required: 7

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Chemistry

Dean: Lianna Zhao, MD
Academic Chair: John Davison, PhD
Faculty: Arthur Ambrose, PhD; Dale Carranza, EdD; Thomas Cullen; John Davison, PhD; Keith Donavan, PhD; Sean Pheasant, PhD

## Courses

The chemistry curriculum is designed to foster an understanding of the fundamental principles of chemistry in a variety of applications-medicine, health-care products, energy, food production, body metabolism, structural materials, microelectronics, and the environment. Students learn how chemical knowledge is derived, theorized, and applied in solving problems in everyday life. They perform experiments in a modern chemistry laboratory with state-of-the-art equipment under the guidance of experienced faculty. In addition, students have an opportunity to enhance their understanding of chemical concepts and improve their laboratory skills through a series of computer-aided lessons and exercises. The chemistry curriculum is designed to meet the needs of students who wish to pursue a major in (1) chemistry, biology, marine science, geology, physics, medicine, engineering, or technology; (2) paramedical or allied health science, including nursing, dental hygiene, physical therapy, or nutrition; or (3) liberal arts.

## Program Student Learning Outcomes

Upon completion of the chemistry program, students will be able to

- Apply chemical concepts to identify or predict chemical behavior.
- Apply mathematics and statistics principles to solve chemical problems.
- Identify chemical composition and communicate both chemical properties and principles.


## Potential Careers

Examples of careers in chemistry include the following:

- Medicine
- Chemist
- Pharmacist
- Agrochemist
- Biotechnologist
- Ceramics Industry
- Engineer
- Environmental Law
- Forensic Scientist
- Geochemist
- Government Policy
- Metallurgist
- Oceanographer
- Patent Law
- Plastics Industry
- Software Designer
- Space Exploration
- Teaching
- Technical Writer


## Chemistry, AA

Complete the following courses:

- CHEM 1A GENERAL CHEMISTRY I 5 Units *
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- CHEM 12A ORGANIC CHEMISTRY 5 Units
- CHEM 12B ORGANIC CHEMISTRY 5 Units

Total Units Required: 20

* Students who have not successfully completed high school chemistry should complete CHEM 3 prior to enrolling in CHEM 1A.


## Recommended Electives:

- BIO 2 PLANT BIOLOGY 4 Units
- BIO 5 ANIMAL BIOLOGY 4 Units
- Mathematics (at least first-year calculus)

Physics (choose appropriate series)

- PHYS 2A INTRODUCTION TO PHYSICS 4 Units $A N D$
- PHYS 2B INTRODUCTION TO PHYSICS 4 Units

OR

- PHYS 4A GENERAL PHYSICS 4 Units AND
- PHYS 4B GENERAL PHYSICS 4 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Communication Studies

Dean: Joseph Poshek
Academic Chair: Gary Rybold, PhD
Faculty: Gary Rybold, PhD; Jules French, JD; Edwin Tiongson; Bill Neesen

## Courses

The curriculum focuses on the study of communication, how meaning is exchanged in a variety of contexts to a variety of audiences. The basic course teaches students the skills required for presenting a speech-analyzing an audience, listening, coping with fear, using visual aids-as well as the skills they will need to prepare a speech-researching a topic, analyzing arguments and texts, and organizing and outlining material. Beyond that, advanced courses address issues such as conflict management and the communication that occurs in interpersonal relationships, small group settings, intercultural settings, public debate venues, and other performance environments. Courses offered through the program meet transfer requirements for general education, and they may be applied toward an Associate in Arts degree in Communication Studies for Transfer or the Associate in Arts degree with a major in communication studies.

## Major

Students majoring in communication studies at the lower-division level concentrate on learning the basics of public speaking and performance.

## Program Student Learning Outcomes

Upon completion of the communication studies program, students will be able to

- Advocate a specific topic to an audience of any size.
- Critically assess other speakers' format, content, and delivery and articulate constructive criticism in an oral critique.
- Articulate and dissect models of communication and apply such methods in public speaking and interpersonal settings.
- Research and construct positions on a set topic to communicate and advocate a particular point of view.
- Critically think about how meaning is exchanged and the implications of our messages.


## Speech and Debate Team

The Irvine Valley College Speech and Debate Team is one of the most respected and accomplished teams in the nation, competing against colleges and universities throughout the United States. Over the past 15 years, the team has placed in the top three at 12 state championships, while winning 12 league championships. Since 2000, the team was crowned the national champions in the community college division of the National Parliamentary Debate Association 11 times. The team also has an international reputation and has hosted debate teams from Europe and Asia on 20 occasions. The team has traveled several times to China for debate demonstrations, competition, and study abroad programs.

The coaching staff takes pride in developing students to become better speakers and better thinkers. All majors are welcomed and encouraged to join. Interested students may contact Director of Forensics Jules French at jfrench7@ivc.edu or Bill Neesen at wneesen@ivc.edu.

## Communication Studies for Transfer, AA-T

Complete the following course (3 units):

- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units


## Group A

Select two courses (6 units) from the following:

- COMM 3 ARGUMENTATION AND DEBATE 3 Units
- COMM 5 INTERPERSONAL COMMUNICATION 3 Units


## Group B

Select two courses ( 6 units) from the following:

- COMM 2 PERSUASION 3 Units
- COMM 9 INTERCULTURAL COMMUNICATION 3 Units
- COMM 30 INTRODUCTION TO ORAL INTERPRETATION 3 Units
- JRNL 40 MASS MEDIA AND SOCIETY 3 Units

Three units of the following:

- COMM 106A FORENSIC ACTIVITY A 1 Unit
- COMM 106B FORENSIC ACTIVITY B 2.5 Units
- COMM 106C FORENSIC ACTIVITY C 4 Units


## Group C

Select one course (3-4 units) from the following:

- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units
- COMM 35 VOICE AND DICTION 3 Units
- JRNL 41 NEWSWRITING 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units

Total Units Required: 18-19
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Communication Studies, AA

Complete the following course:

- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units

Complete 15 units from any of the following courses:

- COMM 2 PERSUASION 3 Units
- COMM 3 ARGUMENTATION AND DEBATE 3 Units
- COMM 5 INTERPERSONAL COMMUNICATION 3 Units
- COMM 9 INTERCULTURAL COMMUNICATION 3 Units
- COMM 30 INTRODUCTION TO ORAL INTERPRETATION 3 Units
- COMM 35 VOICE AND DICTION 3 Units
- COMM 106A FORENSIC ACTIVITY A 1 Unit *
- COMM 106B FORENSIC ACTIVITY B 2.5 Units *
- COMM 106C FORENSIC ACTIVITY C 4 Units *
- TA 1 ACTING 3 Units
- TA 12 DIRECTING 3 Units

Total Units Required: 18

* COMM 106A/COMM 106B/COMM 106C is recommended each semester.

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

# Computer Information Management 

Dean: Traci Fahimi
Academic Chair: Bennet Tchaikovsky, CPA, Esq.
Faculty: Carolina Kussoy; Roopa Mathur, PhD; Michael Salviani; Bob Urell

## Courses

The Computer Information Management (CIM) Department in the School of Business Sciences conducts a program designed to offer training in hardware and software applications used in a variety of environments and enterprises. The program encompasses a broad area of study, including computer operating systems, software applications, and networking and internetworking technologies. Courses are designed to prepare students at various levels of competence-from the novice to the expert-for immediate employment, professional careers, and/or transfer. The program combines classroom lecture/demonstration and individual hands-on training in a laboratory setting. Faculty members work closely with local businesses and industries to ensure relevant and state-of-the-art training.

## Major

Students may pursue associate degree majors in administrative assistant, computer applications, local area networks (Cisco), and web authoring; they may also complete certificates of proficiency in A+, Network+, Linux+, CCNA (Cisco Certified Network Associate) Routing and Switching, office assistant, spreadsheets, and web page authoring.

## Program Student Learning Outcomes

## Administrative Assistant

Upon completion of the administrative assistant program, students will be able to

- Apply computing techniques to solve common business problems, to manipulate and interpret data, and to disseminate the data, methodology, analysis, and results.
- Engage in critical thinking to manipulate the features and functions of common business applications to produce a variety of business documents.
- Compose, criticize, evaluate, and revise the content and structure of written business communications.


## Computer Applications

Upon completion of the computer applications program, students will be able to

- Apply computing techniques to solve common business problems, to manipulate and interpret data, and to disseminate the data, methodology, analysis, and results.
- Engage in critical thinking to manipulate the features and functions of common business applications to produce a variety of business documents.
- Compose, criticize, evaluate, and revise the content and structure of written business communications.


## Local Area Networks: Cisco

Upon completion of the local area networks: Cisco program, students will be able to

- Apply computing techniques to solve common business problems, to manipulate and interpret data, and to disseminate the data, methodology, analysis, and results.
- Engage in critical thinking to manipulate the features and functions of common business applications to produce a variety of business documents.
- Compose, criticize, evaluate, and revise the content and structure of written business communications.


## Web Authoring

Upon completion of the web authoring program, students will be able to

- Apply computing techniques to solve common business problems, to manipulate and interpret data, and to disseminate the data, methodology, analysis, and results.
- Engage in critical thinking to manipulate the features and functions of common business applications to produce a variety of business documents.
- Compose, criticize, evaluate, and revise the content and structure of written business communications.


## Potential Careers

Examples of careers in the various computer information management areas include the following:

- Secretary, Executive Secretary, Office Assistant, Executive Assistant, Receptionist, Office Clerk, Administrative Assistant, and/or Word Processor/Typist.
- Computer Support Specialist, Technical Support Specialist, Help Desk Technician, Computer Support Assistant, and Computer Operator.
- Computer Network Analyst, Computer Network Administrator, or Computer Network Technician.
- Web Designer, Web Master, and Web Developer.


## A+, Network+, Linux+, COP

This program of study starts with the basics of computer hardware (building, maintaining and upgrading PCs) and operating systems (Windows). It introduces computer networking including the fundamentals in small and large networks, including the Internet. It also includes the Linux operating system which is run on many servers on the Internet. This certificate prepares students for the CompTIA A+, Linux + , and Network+ Certification Exams. Students who complete this certificate will be ready for an entry-level position in the industry and/or to undertake further study to advance to more specific industry training.

## Complete the following courses:

- CIM 110 INFORMATION AND COMMUNICATION TECHNOLOGY ESSENTIALS 4 Units
- CIM 160 COMPUTER NETWORK FUNDAMENTALS (NETWORK+) 3 Units


# Total Units Required: 10 

## Recommended Electives

- CIM 170 INTRODUCTION TO INFORMATION SYSTEMS SECURITY (SECURITY+) 3 Units
- CIM 172 DIGITAL FORENSICS FUNDAMENTALS 3 Units


## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Administrative Assistant, AS


#### Abstract

The goal of the Administrative Assistant Certificate of Achievement program is to prepare students for employment as Administrative Assistants or Business Office/Information Specialists in various business sectors in the community. The objectives of the Administrative Assistant program include: composing correspondence, preparing a variety of business documents, scheduling and coordinating meetings/events, creating, updating, and managing word processing files, spreadsheet files, and database files, managing projects, organizing and maintaining paper and electronic files, providing support to colleagues and customers, assisting with all aspects of administrative management, coordinating within departments and operating units, and performing multifaceted office support and all day-to-day operations. Expected outcomes of the Administrative Assistant program include the ability to demonstrate skills needed for entry-level positions in a business office including the ability to: apply computing techniques to solve common business problems; manipulate and interpret data; disseminate the data methodology, analysis, and results; engage in critical thinking; manipulate the features and functions of common business applications to produce a variety of business documents; and to compose, criticize, evaluate, and revise the content and structure of written business communications. Coursework is designed to develop students' communication, keyboarding, word processing, spreadsheet, and database skills. Potential careers include Secretary, Executive Secretary, Office Assistant, Executive Assistant, Receptionist, Office Clerk, Administrative Assistant, and/or Word Processors/Typists.


## Complete the following courses:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 115 DATABASES 3 Units
- CIM 201A INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD I 1 Unit
- CIM 201B INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD II 1 Unit
- CIM 210.2 WORD PROCESSING II 1.5 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 203 BUSINESS ENGLISH 3 Units


## Total Units Required: 18.5

Recommended Electives:

- CIM 103 INTRODUCTION TO WINDOWS 1.5 Units
- CIM 201C INTRODUCTION TO COMPUTERS, KEYBOARDING, AND WORD PROCESSING III 1 Unit
- CIM 209 INTRODUCTION TO OUTLOOK 0.5 Units
- CIM 210.1 WORD PROCESSING I 1 Unit
- CIM 212.3 SPREADSHEETS III - CERTIFICATION 3 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Note:

See an IVC counselor for course substitution if a course is not available.

## Administrative Assistant, COA

The goal of the Administrative Assistant Certificate of Achievement program is to prepare students for employment as Administrative Assistants or Business Office/Information Specialists in various business sectors in the community. The objectives of the Administrative Assistant program include: composing correspondence, preparing a variety of business documents, scheduling and coordinating meetings/events, creating, updating, and managing word processing files, spreadsheet files, and database files, managing projects, organizing and maintaining paper and electronic files, providing support to colleagues and customers, assisting with all aspects of administrative management, coordinating within departments and operating units, and performing multifaceted office support and all day-to-day operations. Expected outcomes of the Administrative Assistant program include the ability to demonstrate skills needed for entry-level positions in a business office including the ability to: apply computing techniques to solve common business problems; manipulate and interpret data; disseminate the data methodology, analysis, and results; engage in critical thinking; manipulate the features and functions of common business applications to produce a variety of business documents; and to compose, criticize, evaluate, and revise the content and structure of written business communications. Coursework is designed to develop students' communication, keyboarding, word processing, spreadsheet, and database skills. Potential careers include Secretary, Executive Secretary, Office Assistant, Executive Assistant, Receptionist, Office Clerk, Administrative Assistant, and/or Word Processors/Typists.

## Complete the following courses:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 115 DATABASES 3 Units
- CIM 201A INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD I 1 Unit
- CIM 201B INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD II 1 Unit
- CIM 210.2 WORD PROCESSING II 1.5 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units

Total Units Required: 18.5

## Recommended Electives:

- CIM 103 INTRODUCTION TO WINDOWS 1.5 Units
- CIM 201C INTRODUCTION TO COMPUTERS, KEYBOARDING, AND WORD PROCESSING III 1 Unit
- CIM 209 INTRODUCTION TO OUTLOOK $\mathbf{0 . 5}$ Units
- CIM 210.1 WORD PROCESSING I 1 Unit
- CIM 212.3 SPREADSHEETS III - CERTIFICATION 3 Units

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.
Note:

See an IVC counselor for course substitution if a course is not available.

## CCNA (Cisco Certified Network Associate) Routing and Switching, COP

The program of study for the CCNA (Cisco Certified Network Associate) Routing and Switching Certificate includes instruction and practice in the theory, design, configuration, and operation of simple Local and Wide Area Networks (LAN/WAN). This certificate program prepares students for entry-level positions in network administration and to take the third-party Cisco Certified Network Associate (CCNA) exam (640-802).

Complete the following courses:

- CIM 181 CCNA - INTRODUCTION TO NETWORKS 3 Units
- CIM 182 CCNA 2 - ROUTING AND SWITCHING ESSENTIALS 3 Units
- CIM 283 CCNA 3 - SCALING NETWORKS 3 Units
- CIM 284 CCNA 4 - CONNECTING NETWORKS 3 Units


## Total Units Required: 12

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Computer Applications, AS

This program is designed for those wishing to develop expertise in a variety of computer applications that may be required in almost any business setting. Students will gain real-world experience in Microsoft Windows, Microsoft Word, Microsoft Excel, and Web technologies. Students will learn to troubleshoot hardware and software issues, analyze data, complete basic computing tasks and develop solutions to solve problems. Potential career opportunities include Computer Support Specialists, Technical Support Specialists, Help Desk Technicians, Computer Support Assistants, and Computer Operators.

## Complete the following courses:

- CIM 103 INTRODUCTION TO WINDOWS 1.5 Units
- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 115 DATABASES 3 Units
- CIM 117 SOCIAL MEDIA MARKETING 3 Units
- CIM 144 WEB DEVELOPMENT - WORDPRESS 3 Units
- CIM 210.2 WORD PROCESSING II 1.5 Units


## Complete one course from the following list:

- CIM 141 CREATING A WEB PAGE USING HTML 3 Units
- CIM 209 INTRODUCTION TO OUTLOOK 0.5 Units
- CIM 210.1 WORD PROCESSING I 1 Unit
- CIM 212.3 SPREADSHEETS III - CERTIFICATION 3 Units


## Total Units Required: 18.5-21

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

Note:

See an IVC counselor for course substitution if a course is not available.

## Computer Applications, COA

This program is designed for those wishing to develop expertise in a variety of computer applications that may be required in almost any business setting. Students will gain real-world experience in Microsoft Windows, Microsoft Word, Microsoft Excel, and Web technologies. Students will learn to troubleshoot hardware and software issues, analyze data, complete basic computing
tasks and develop solutions to solve problems. Potential career opportunities include Computer Support Specialists, Technical Support Specialists, Help Desk Technicians, Computer Support Assistants, and Computer Operators.

## Complete the following courses:

- CIM 103 INTRODUCTION TO WINDOWS 1.5 Units
- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II 1.5 Units
- CIM 115 DATABASES 3 Units
- CIM 117 SOCIAL MEDIA MARKETING 3 Units
- CIM 144 WEB DEVELOPMENT - WORDPRESS 3 Units
- CIM 210.2 WORD PROCESSING II 1.5 Units


## Complete one course from the following list:

- CIM 141 CREATING A WEB PAGE USING HTML 3 Units
- CIM 209 INTRODUCTION TO OUTLOOK 0.5 Units
- CIM 210.1 WORD PROCESSING I 1 Unit
- CIM 212.3 SPREADSHEETS III - CERTIFICATION 3 Units

Total Units Required: 18.5-21
To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Note:

See an IVC counselor for course substitution if a course is not available.

## Local Area Networks - Cisco, AS

The Cisco CCNA (Cisco Certified Network Associate) is one of the most demanded certifications in networking. Cisco has designed a four course program which leads to this certification. Students may cover the entire track at IVC over four semesters or they may take the college's accelerated program, completing two semesters' worth of material in one semester, in order to acquire the CCNA in one academic year. The program is designed to meet the needs of students who want 1 ) to obtain entrylevel employment; 2) to advance in their current positions; or 3) to change careers. This program enables students to demonstrate specialization in areas such as computer technical support and networking. After completing the program, the actual CCNA Certification Exam is given by a third party. Potential careers include entry-level positions in such capacities as computer network analysts, computer network administrators, or computer network technicians.

Complete the following courses:

- CIM 106 A+ HARDWARE CONCEPTS
- CIM 108 A+ OPERATING SYSTEM PREPARATION
- CIM 160 COMPUTER NETWORK FUNDAMENTALS (NETWORK+) 3 Units
- CIM 161 SYSTEMS AND NETWORK ADMINISTRATOR (LINUX+) 3 Units
- CIM 261.1 CCNA: INTERNETWORKING TECHNOLOGIES I
- CIM 261.2 CCNA: INTERNETWORKING TECHNOLOGIES II
- CIM 261.3 CCNA: INTERNETWORKING TECHNOLOGIES III
- CIM 261.4 CCNA: INTERNETWORKING TECHNOLOGIES IV


## Total Units Required: 24

## Recommended electives:

- CIM 170 INTRODUCTION TO INFORMATION SYSTEMS SECURITY (SECURITY+) 3 Units
- CIM 172 DIGITAL FORENSICS FUNDAMENTALS 3 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

Note:

See an IVC counselor for course substitution if a course is not available.

## Local Area Networks - Cisco, COA

The Cisco CCNA (Cisco Certified Network Associate) is one of the most demanded certifications in networking. Cisco has designed a four course program which leads to this certification. Students may cover the entire track at IVC over four semesters or they may take the college's accelerated program, completing two semesters' worth of material in one semester, in order to acquire the CCNA in one academic year. The program is designed to meet the needs of students who want 1) to obtain entrylevel employment; 2) to advance in their current positions; or 3) to change careers. This program enables students to demonstrate specialization in areas such as computer technical support and networking. After completing the program, the actual CCNA Certification Exam is given by a third party. Potential careers include entry-level positions in such capacities as computer network analysts, computer network administrators, or computer network technicians.

## Complete the following courses:

- CIM 106 A+ HARDWARE CONCEPTS
- CIM 108 A+ OPERATING SYSTEM PREPARATION
- CIM 160 COMPUTER NETWORK FUNDAMENTALS (NETWORK+) 3 Units
- CIM 161 SYSTEMS AND NETWORK ADMINISTRATOR (LINUX+) 3 Units
- CIM 261.1 CCNA: INTERNETWORKING TECHNOLOGIES I
- CIM 261.2 CCNA: INTERNETWORKING TECHNOLOGIES II
- CIM 261.3 CCNA: INTERNETWORKING TECHNOLOGIES III
- CIM 261.4 CCNA: INTERNETWORKING TECHNOLOGIES IV


## Total Units Required: 24

## Recommended electives:

- CIM 170 INTRODUCTION TO INFORMATION SYSTEMS SECURITY (SECURITY+) 3 Units
- CIM 172 DIGITAL FORENSICS FUNDAMENTALS 3 Units


## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.
Note:

See an IVC counselor for course substitution if a course is not available.

## Office Assistant, COP

This program is designed for those wishing to develop entry-level office occupational skills that may be applied to a variety of business settings.

Complete the following courses:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 201A INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD I 1 Unit
- CIM 201B INTRODUCTION TO COMPUTERS, KEYBOARDING AND WORD II 1 Unit
- CIM 210.2 WORD PROCESSING II 1.5 Units
- MGT 203 BUSINESS ENGLISH 3 Units


## Total Units Required: 11

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Spreadsheets, COP

This certificate of proficiency is designed for those wishing to develop spreadsheet and accounting skills that may be applied in a variety of business settings.

Complete the following courses:

- CIM 112.1 SPREADSHEETS I 1.5 Units
- CIM 112.2 SPREADSHEETS II $\mathbf{1 . 5}$ Units
- CIM 212.3 SPREADSHEETS III - CERTIFICATION 3 Units

Complete a minimum of 3 units from the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 114 BUSINESS MATHEMATICS 3 Units
- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units
- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units

Total Units Required: 9-10

## Recommended Electives:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Web Authoring, AS

The primary purpose of the web authoring program is to prepare students for employment - and to maintain state-of-the-art skills of workers already employed - in California's rapidly expanding web authoring industry. This comprehensive program offers an integrated approach to meet current and expanding market demand. Potential career options include Web Designer, Web Master, and Web Developer.

Complete the following courses:

- CIM 141 CREATING A WEB PAGE USING HTML 3 Units
- CIM 143 WEB DEVELOPMENT - DREAMWEAVER 3 Units
- CIM 144 WEB DEVELOPMENT - WORDPRESS 3 Units

Complete three courses from the following list:

- CIM 148 WEB DEVELOPMENT - EDGE ANIMATE 3 Units


## Total Units Required: 18

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
Note:

See an IVC counselor for course substitution if a course is not available.

## Web Authoring, COA

The primary purpose of the web authoring program is to prepare students for employment - and to maintain state-of-the-art skills of workers already employed - in California's rapidly expanding web authoring industry. This comprehensive program offers an integrated approach to meet current and expanding market demand. Potential career options include Web Designer, Web Master, and Web Developer.

## Complete the following courses:

- CIM 141 CREATING A WEB PAGE USING HTML 3 Units
- CIM 143 WEB DEVELOPMENT - DREAMWEAVER 3 Units
- CIM 144 WEB DEVELOPMENT - WORDPRESS 3 Units

Complete three courses from the following list:

- CIM 148 WEB DEVELOPMENT - EDGE ANIMATE 3 Units


## Total Units Required: 18

Note:

## See an IVC counselor for course substitution if a course is not available.

## Web Page Authoring, COP

This certificate of proficiency is intended to prepare students for entry-level web authoring positions. The certificate focuses on fundamental web development software and effective web page layout skills.

Complete the following courses:

- CIM 141 CREATING A WEB PAGE USING HTML 3 Units
- CIM 143 WEB DEVELOPMENT - DREAMWEAVER 3 Units
- CIM 144 WEB DEVELOPMENT - WORDPRESS 3 Units


## Total Units Required: 9

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

# Computer Science 

Dean: Lianna Zhao, MD
Academic Co-chairs: Seth Hochwald; Chan Loke
Faculty: Seth Hochwald; Chan Loke; Albert Murtz

## Courses

The Computer Science Department in the School of Mathematics, Computer Science and Engineering conducts a program designed for students who are developing computer programming skills in preparation to transfer to a four-year college or university. Courses are intended to meet the needs of students at various levels of competence, from the novice to the expert. The department acquaints students with the presently available methods of computer science that are useful in solving problems of science, industry, and government; prepares students for the additional formal education and self-education required in this everdeveloping field; and fosters students' abilities to solve computer science problems.

## Major

Students may take individual courses to gain expertise in specific areas, or they may take courses collectively to earn the Associate in Science degree in Computer Science. The major introduces a variety of programming languages and each language's many applications.

## Program Student Learning Outcomes

Upon completion of the computer languages program, students will be able to

- Analyze a problem, and identify and define the computing requirements appropriate to its solution.
- Use current techniques, skills, and tools necessary for computing practice.
- Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.


## Potential Careers

Examples of careers in computer science include the following

- Database Administrator
- Programmer
- Software Engineer
- Systems Analyst
- Web Developer


## Computer Science for Transfer, AS-T

Complete the following courses:

- CS 6A COMPUTER DISCRETE MATHEMATICS I 3 Units or
- MATH 30 COMPUTER DISCRETE MATHEMATICS I 3 Units
- CS 38 JAVA PROGRAMMING 3 Units
- CS 40A COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE I 3 Units
- CS 41 DATA STRUCTURES 3 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units
- PHYS 4A GENERAL PHYSICS 4 Units
- PHYS 4B GENERAL PHYSICS 4 Units


## Total Units Required: 30

*Cross-listed course: Area credit given in one area only.
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Computer Science, AS

The Computer Science Department in the School of Mathematics, Computer Science and Engineering conducts a program designed for students who are developing computer programming skills in preparation for transfer to a four-year college or university. Courses are intended to meet the needs of students at various levels of competence, from the novice to the expert. The department acquaints students with the presently available methods of computer science that are useful in solving problems of science, industry, and government; prepares students for the additional formal education and self-education required in this everdeveloping field; and fosters students' abilities to solve computer science problems. This degree differs from the AS-T in Computer Science because it offers a more general program in computer science that prepares students for transfer to University of California campuses, private and out-of-state universities.

## Complete the following courses:

- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units
or
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- CS 10 INTRODUCTION TO PROGRAMMING USING PYTHON 3 Units
- CS 37 C++ PROGRAMMING 3 Units
- CS 38 JAVA PROGRAMMING 3 Units
- CS 40A COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE I 3 Units
- CS 41 DATA STRUCTURES 3 Units


## Complete any two of the following courses:

- CS 6A COMPUTER DISCRETE MATHEMATICS I 3 Units
- CS 6B COMPUTER DISCRETE MATHEMATICS II 3 Units
- CS 30 VISUAL BASIC PROGRAMMING 3 Units
- CS 36 C PROGRAMMING 3 Units
- CS 39 C\# PROGRAMMING USING MICROSOFT.NET 3 Units
- CS 40B COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE II 3 Units
- CS 50 HTML/XHTML PROGRAMMING 3 Units


## Total Units Required: 24

## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Counseling

## Dean: Elizabeth L. Cipres, EdD

## Academic Chair: Robert Melendez

Faculty: Dalal Farsakh; Mark Franco; Eric Garcia; Yolanda Gomez-Gouldsmith; Rebecca Groff; Judy Henmi; Angel Hernandez; John Licitra, EdD; Vanessa Marquez ; Diana McCullough, EdD; Robert Melendez; Michelle Minkler; Tuan Nguyen; Amanda Romero; Parisa Soltani, EdD; Fawn Tanriverdi; Tiffany Tran; Javier Valdez

## Courses

The curriculum in counseling is designed to enhance students' academic success and personal development. The emphasis in all courses is on teaching processes and skills that students can apply in all facets of their lives. These include self-evaluation, decision making, goal setting and planning, personal awareness, interpersonal communication, and effective self-management.

## Program Student Learning Outcomes

Upon completion of the counseling program, students will be able to

- Develop effective self management skills in the areas of time management, decision making, goal setting and academic planning.
- Evaluate techniques to increase personal awareness and interpersonal skills.
- Critically explore career options using self assessments.


## Dance

Dean: Joseph Poshek
Academic Chair: Jennifer La Curan
Faculty: Jennifer La Curan; Kathryn Milostan-Egus

## Courses

The dance curriculum focuses not only on training the student who wishes to transfer to a four-year institution in dance or a dance-related field, achieve an associate degree, or pursue a certificate for immediate employment, but also on providing opportunities for those in other fields to combine interests and/or learn about how to prevent injuries, reduce stress, improve their quality of life, and technique for any movement-based endeavor. The curriculum includes technique courses in ballet, modern dance, jazz dance, tap dance, ballroom dance, Middle Eastern and African dance, and an introductory course that incldues many dance genres. It also includes dance science courses in Pilates, condition and correct, yoga, GYROKINESIS $®$, and academic courses in choreography, music for dance, pedagogy, dance history and dance appreciation. Many of these courses meet general education requirements in the arts, health and wellness, and cultural diversity categories. There are numerous opportunities for students of all levels and interests to perform by enrolling in one of our performing groups. Participation in formal concerts is by audition and enrollment in one of the performance courses or ensembles (see below). Due to new state regulations, anyone wishing to complete an AA, Mind Body Therapy Certificate, or one of the Dance Certificates should seek the ongoing guidance of the dance faculty.

## Performing Ensembles

There are two performing ensembles within the IVC Dance Department. The Performing Dance Ensemble (PDE) is for intermediate and advanced dancers who seek a pre-professional company experience. Students learn a varied and challenging repertoire that stretches them technically and artistically. Students define their career aspirations and work on their resumés and professional audition abilities. Students also learn about health issues relative to performing. The Dance Rehearsal and Performance (R\&P) Group is for those interested in any genre and those performing at any level. Both groups invite dance professionals to participate in the ensembles to sharing their experiences in all aspects of the dance profession.

## Major

The associate degree in dance is designed for students who are preparing to audition for admission into a dance program at a four-year institution or for those wanting to pursue dance as a career. The major concentrates on developing the student's technical ability to at least the intermediate level in modern dance, ballet and jazz dance. Students also complete courses in music for dance, choreography, dance history, conditioning for dance, and dance rehearsal and performance to develop their awareness of the artistry and rigor of dance. To fulfill the unit requirement for the major, students may choose among courses in tap, African and/or ballroom dance.

The certificate of achievement in commercial dance is designed for students seeking professional dance opportunities in the entertainment field. This comprehensive program trains the student in a variety of dance techniques coupled with vocal and acting courses. Training sessions/workshops with a number of the performance-based entertainment agencies will allow students to have an insider's understanding of the demands of the industry.

The certificate of proficiency in dance technique is designed for students interested in vocational opportunities in the local entertainment job market. The program allows students to study a variety of dance techniques and styles to prepare them to audition at any of the numerous performance-based entertainment venues in the region or pursue further study.

The certificate of proficiency in mind body therapy provides the training necessary for self employment or entry level employment within in any organization that focuses on mind-body therapies. These holistic methods focus on the interrelationship between the various anatomical systems and the energetic self, eastern and western medicine, or mind/body/spirit connections.

Each year both faculty and students are selected to participate in various choreographic and performance festivals, competitions and events, such as the American College Dance Festival. Selection is based upon the quality of the performers and the choreography of the dance.

Ballet classes can be taken for transfer credit for a total of four semesters. For the AA degree or any dance certificate, Ballet II is required. In those cases, Ballet I should be taken a maximum of three times for transfer credit. Please see one of co-chairs before enrolling in Ballet for the second time.

Modern classes can be taken for transfer credit for a total of four semesters. For the AA degree or any dance certificate, Modern II is required. In those cases, Modern I should be taken a maximum of three times for transfer credit. Please see one of co-chairs before enrolling in Modern for the second time.

## Program Student Learning Outcomes

Upon completion of the dance program, students will be able to

- Analyze, evaluate, and correlate various dance vocabulary, observations of dance performances, artistic and/or historical concepts and movement principles.


## Certificate of Achievement - Commercial Dance

Upon completion of the program in commercial dance, students will be able to

- Analyze, evaluate, and correlate the dance techniques from various commercial dance genres in order to be able to interpret and perform them at a proficiency level relevant to the professional commercial dance field.


## Potential Careers

Examples of careers in dance or dance-related fields include the following. Note: Some of the careers listed require further education.

- Artistic Director/Rehearsal Director
- Arts Administrator
- Arts Advocacy Agent
- Arts Council Director
- Arts Lawyer
- Athletic Trainer
- Choreographer
- College/University Educator
- Costume or Lighting Designer
- Dance and Arts Administration
- Dance Company Manager
- Dance Critic
- Dance Ethnologist/Historian
- Dance Instructor
- Dance Medicine Osteopath
- Dance Notator/Reconstructor
- Dance Physical Therapist
- Dance Researcher
- Dance Scientist
- Dance Studio Owner
- Dance Therapist
- Dance Writer
- Grant Writer
- Instructional Aide - Dance; Somatics
- Mind-Body Therapy Practitioner
- Nutritionist/Dietician
- Physical Therapy Assistant
- Producer/Talent Agent
- Production Manager
- Professional Dancer
- Publicist
- Sales/Marketing Representative
- Special Events Coordinator
- $\quad$ Stage Manager
- Studio Owner
- Tour Manager
- Yoga/Pilates/GYROKINESIS® Instructor


## Commercial Dance, COA

Complete the following courses (8 units):

- DNCE 18 JAZZ DANCE II 2 Units
- DNCE 23 TAP DANCE II 1 Unit
- DNCE 55 CHOREOGRAPHY I 3 Units

Complete the following dance science courses (5 units):

- DNCE 51 PILATES 2 Units
- DNCE 142 Dance Movement Technique and Analysis: Floor Barre
- DNCE 253 GYROKINESIS (R) THE ART OF EXERCISING AND BEYOND 0.5 Unit

Complete the following technique courses (4 units):

- DNCE 7 BALLET II 2 Units
- DNCE 13 MODERN DANCE II 2 Units

Complete a minimum of 1 unit from the following courses:

- DNCE 27 HIP HOP/COMMERCIAL DANCE 1 Unit
- DNCE 36 BALLROOM STYLES OF THE 19TH AND 20TH CENTURY 1 Unit
- DNCE 37 INTERMEDIATE BALLROOM 2 Units
- DNCE 40 HIP HOP I: HISTORY OVERVIEW 1 Unit

Complete a minimum of 2 units from the following courses:

- DNCE 33 MIDDLE EASTERN DANCE I 1 Unit
- DNCE 34 MIDDLE EASTERN DANCE II 1 Unit
- DNCE 35 FOLK DANCES OF EGYPT AND LEBANON 1 Unit
- DNCE 61 PAN-AFRICAN DANCE/THE DIASPORA 1 Unit

Complete a minimum of 2 units with a maximum of 1 unit from DNCE 65:

- DNCE 65 Dance Rehearsal and Performance
- DNCE 170 IVC Performing Dance Ensemble

Complete a minimum of 2 units from the following courses:

- MUS 80 VOICE I 2 Units
- MUS 81 VOICE II 2 Units
- MUS 82 VOICE III 2 Units
- TA 1 ACTING 3 Units


## Total Units Required: 24

Please see full-time dance faculty about waivers or replacements for courses with no active link.
To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.
Note:

See an IVC counselor for course substitution if a course is not available.

## Dance Technique, COP

Complete the following course:

- DNCE 55 CHOREOGRAPHY I 3 Units

Complete one of the following courses:

- DNCE 77 DANCE HISTORY: TWENTIETH CENTURY 3 Units
- DNCE 85 MUSIC FOR DANCE 3 Units

Complete 2 units from the following performance courses:

- DNCE 65 DANCE REHEARSAL AND PERFORMANCE 0.5-2 Units
- DNCE 66A DANCE REHEARSAL AND PERFORMANCE-ANALYSIS OF CREATIVE PROCESSES A 1 Unit
- DNCE 67B DANCE REHEARSAL AND PERFORMANCE-SOLOS TO VARIOUS GROUPS B $\mathbf{1 . 5}$ Units

Complete one of the following courses:

- DNCE 86 CONDITION AND CORRECT: BODY ALIGNMENT 3 Units
- DNCE 87 CONDITION AND CORRECT: ANALYSIS AND BODY THERAPIES 3 Units
- DNCE 88 CONDITION AND CORRECT: MIND-BODY TECHNIQUES 3 Units

Complete 4 units in two different styles from the following dance technique courses:

- DNCE 7 BALLET II 2 Units
- DNCE 13 MODERN DANCE II 2 Units
- DNCE 16 JAZZ DANCE BROADWAY STYLES 2 Units
- DNCE 17 JAZZ DANCE I - OVERVIEW 2 Units

OR

- DNCE 17A/DNCE 17B
- DNCE 18 JAZZ DANCE II 2 Units OR
- DNCE 18A/DNCE 18B
- DNCE 22 TAP DANCE I 1 Unit
- DNCE 23 TAP DANCE II 1 Unit
- DNCE 24 TAP: TRADITIONAL BROADWAY BASICS 1 Unit
- DNCE 25 TAP: BEGINNING RHYTHM TECHNIQUE AND INTERMEDIATE BROADWAY STEPS 1 Unit
- DNCE 26 INTERMEDIATE TAP TECHNIQUES AND IMPROVISATION 1 Unit


## Complete 1 unit from the following world dance courses:

- DNCE 27 HIP HOP/COMMERCIAL DANCE 1 Unit
- DNCE 33 MIDDLE EASTERN DANCE I 1 Unit
- DNCE 34 MIDDLE EASTERN DANCE II 1 Unit
- DNCE 36 BALLROOM STYLES OF THE 19TH AND 20TH CENTURY 1 Unit
- DNCE 40 HIP HOP I: HISTORY OVERVIEW 1 Unit
- DNCE 61 PAN-AFRICAN DANCE/THE DIASPORA 1 Unit

Complete 2 units from the following courses:

- DNCE 51 PILATES 2 Units

OR

- DNCE 51A PILATES A 1 Unit

AND

- DNCE 51B PILATES B 1 Unit
- DNCE 90 DANCE TRAINING: THERABAND RESISTANCE WORKOUT 2 Units
- DNCE 91 DANCE TRAINING: ROLLERS AND ROTATING DISCS WORKOUT 2 Units
- DNCE 92 DANCE TRAINING: FLOOR BARRE 2 Units
- DNCE 93 GYROKINESIS (R): ART OF EXERCISING AND BEYOND, OVERVIEW 2 Units
- DNCE 94 GYROKINESIS (R): 90 MINUTE FORMAT 2 Units
- DNCE 95 GYROKINESIS (R): 60 MINUTE FORMAT AND OTHER SEQUENCES 2 Units
- DNCE 96 GYROKINESIS (R): ALTERNATIVE FORMATS AND MUSIC 2 Units
- DNCE 253 GYROKINESIS (R) THE ART OF EXERCISING AND BEYOND 1 Unit

Total Units Required: 17

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Dance, AA

Complete the following core courses (20 units):

- DNCE 6 BALLET I 2 Units
- DNCE 7 BALLET II 2 Units
- DNCE 12 MODERN DANCE I 2 Units
- DNCE 13 MODERN DANCE II 2 Units
- DNCE 55 CHOREOGRAPHY I 3 Units
- DNCE 77 DANCE HISTORY: TWENTIETH CENTURY 3 Units
- DNCE 85 MUSIC FOR DANCE 3 Units
- DNCE 86 CONDITION AND CORRECT: BODY ALIGNMENT 3 Units

Complete a minimum of 2 units from the following performance courses (2 units):

- DNCE 65 Dance Rehearsal and Performance
- DNCE 69 INTRODUCTION TO DANCE ENSEMBLE PRACTICES 2 Units

Complete a minimum of 2 units from the following courses ( 2 units):

- DNCE 3 MIDDLE EASTERN DANCE FUNDAMENTALS 1 Unit
- DNCE 22 TAP DANCE I 1 Unit
- DNCE 23 TAP DANCE II 1 Unit
- DNCE 24 TAP: TRADITIONAL BROADWAY BASICS 1 Unit
- DNCE 25 TAP: BEGINNING RHYTHM TECHNIQUE AND INTERMEDIATE BROADWAY STEPS 1 Unit
- DNCE 27 HIP HOP/COMMERCIAL DANCE 1 Unit
- DNCE 33 MIDDLE EASTERN DANCE I 1 Unit
- DNCE 35 FOLK DANCES OF EGYPT AND LEBANON 1 Unit
- DNCE 37 INTERMEDIATE BALLROOM 2 Units
- DNCE 93 GYROKINESIS (R): ART OF EXERCISING AND BEYOND, OVERVIEW 2 Units


## Total Units, Minimum Required: 24

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

Note:

## See an IVC counselor for course substitution if a course is not available.

## Mind Body Therapy, COP

This certificate, offered by the Department of Dance, provides the training necessary for self employment or entry level employment within in any organization that focuses on mind-body therapies. These holistic methods focus on the interrelationship between the various anatomical systems and the energetic self, eastern and western medicine, or $\mathrm{mind} / \mathrm{body} / \mathrm{spirit}$ connections. Employment factors are variable based upon criteria that is both objective and subjective in nature. There is work within several different fields. Some job titles upon completion of the certificate could include yoga instructor, wellness specialist, physical therapy assistant, or occupational assistant. In addition, this certificate satisfies the curriculum required for pre-training course within the level 1 certification process for GYROKINESIS® teacher trainings. The program focuses on developing a practical knowledge of anatomy, methodologies of various body therapies, the science behind the methods, how to assess individual needs and goals,and how to modify and adapt techniques to meets these needs and goals. A major emphasis is on injury care and prevention, how to increase or decrease the challenge based upon an individuals abilities and limitations, and how to implement an evolving specialized program that is designed to empower the client and enhance the quality of their life.

## Complete the following course (2 units):

## Complete a minimum of 2 units from the following Work Related courses (2 units):

- DNCE 168 COOPERATIVE WORK EXPERIENCE: DANCE 1 Unit
- DNCE 168 COOPERATIVE WORK EXPERIENCE: DANCE 2 Units
- ENTR 200 PATHWAYS TO SUCCESS 0 Units


## Complete 3 of the following courses ( 6 units):

- DNCE 45 YOGA AND STRESS MANAGEMENT 2 Units
- DNCE 46 INTRODUCTION TO YOGA 2 Units
- DNCE 47 RAJA YOGA-HATHA YOGA 2 Units
- DNCE 48 YOGA: CONTEMPORARY AND TRADITIONAL EASTERN FORMS 2 Units


## Complete one of the following courses (3 units):

- DNCE 50 CONDITION AND CORRECT: OVERVIEW 3 Units
- DNCE 86 CONDITION AND CORRECT: BODY ALIGNMENT 3 Units
- DNCE 87 CONDITION AND CORRECT: ANALYSIS AND BODY THERAPIES 3 Units
- DNCE 88 CONDITION AND CORRECT: MIND-BODY TECHNIQUES 3 Units

Complete one of the following courses (2 units):

- DNCE 51 PILATES 2 Units
- DNCE 52 PILATES - MAT 2 Units
- DNCE 53 PILATES-REFORMER WITH MAT 2 Units
- DNCE 54 PILATES: DESIGNED FOR YOU 2 Units


## Complete one of the following courses (2 units):

- DNCE 93 GYROKINESIS (R): ART OF EXERCISING AND BEYOND, OVERVIEW 2 Units
- DNCE 94 GYROKINESIS (R): 90 MINUTE FORMAT 2 Units
- DNCE 96 GYROKINESIS (R): ALTERNATIVE FORMATS AND MUSIC 2 Units


## Total Units Required: 17

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

# Design Model Making and Rapid Prototyping 

Interim Dean: Lianna Zhao, MD

Academic Chair: Matt Wolken
Faculty: Brett McKim

## Courses

Rapid model making and prototype design is a valued part of many industries, including transportation, architecture, product and packaging, media, and entertainment. The growth of digital technology has opened up new areas of development in design representation, such as digital simulation and rapid prototyping.

Courses in the program study the elements of creative thinking and interpretation used in the design process, including the techniques and methods used to construct prototypes and models. In advanced courses, students choose a field of specialization to explore methods and materials in a number of options in digital simulation, modeling and rapid prototyping.

## Major

The certificate program is designed to prepare students with the skills necessary for product design with both traditional and emerging technologies. Students will be given a unique insight into both the physical and digital disciplines of design, cultivating technical and art skills based on critical thinking.

## Program Student Learning Outcomes

Upon completion of the design model making and rapid prototyping program, students will be able to

- Have the necessary technical knowledge and communication skills to identify, articulate and solve problems pertaining to the product development environment and perform the tasks required within the product design and development professions.
- Design a simple object within constraints.
- Construct a portfolio that communicates their body of work while in the program.
- Use techniques, processes, and tools needed in the product development practice.
- Create two-dimensional and three-dimensional products and designs using appropriate tools, materials, methods and techniques.
- Analyze and critically evaluate two-dimensional and three-dimensional products using the current principles and language of art and design.


## Potential Careers

An associate level degree in computer-aided design or certificate in civil or mechanical computer-aided design will prepare students for direct entry into a career or technical training program within these fields:

- Automotive Design and Manufacturing
- Biomedical and Healthcare Manufacturing
- Computer Product Manufacturing
- Construction
- Environmental Design
- Machinery Manufacturing
- Metal Manufacturing
- Military and Aerospace
- Professional and Scientific Technical Services
- Robotics and Automation
- Telecommunications and Electrical Circuit Design
- Utilities and Local Government

An associate level degree in computer-aided design or certificate in pre-engineering will also prepare students for continuing their education at a four-year institution, where earning a BS degree in the engineering field can prepare them for careers in:

- Mechanical Engineering
- Civil Engineering
- Electrical Engineering
- Structural Engineering
- Chemical Engineering
- Biomedical Engineering
- Environmental Engineering
- Materials Science Engineering

A certificate in design model making and prototyping will prepare students for direct entry into a career or technical training program within these fields:

- Amusement park design
- Automotive design and manufacture
- Machining and manufacturing
- Architecture
- Media and entertainment
- Product development
- Package design
- The toy industry
- Transportation design


## Design Model Making and Rapid Prototyping, AS

This program is occupational in nature; the courses in the major are not currently transferable to CSU or UC. Students should consult with their counselors or the Transfer Center to determine the extent to which courses may apply to programs at other four-year institutions.

## Complete the following courses:

- DMP 200 INTRODUCTION TO MODEL MAKING AND DESIGN 1.5 Units
- DMP 210 RAPID VISUALIZATION 3 Units
- DMP 220 BASIC MODEL MAKING 3 Units
- DMP 221 ADVANCED MODEL MAKING I 3 Units
- DMP 222 ADVANCED MODEL MAKING II 3 Units
- DMP 230 3D COMPUTER DESIGN 3 Units
- DMP 240 3D RAPID MODEL MAKING AND PROTOTYPE DEVELOPMENT I 3 Units
- DMP 241 3D RAPID MODEL MAKING AND PROTOTYPE DEVELOPMENT II 3 Units
- DMP 260 MODELING AND PROTOTYPING METHODS AND MATERIALS 2 Units


## Total Units Required: 24.5

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Design Model Making and Rapid Prototyping, COA

This program is occupational in nature; the courses in the major are not currently transferable to CSU or UC. Students should consult with their counselors or the Transfer Center to determine the extent to which courses may apply to programs at other four-year institutions.

## Complete the following courses:

- DMP 200 INTRODUCTION TO MODEL MAKING AND DESIGN 1.5 Units
- DMP 210 RAPID VISUALIZATION 3 Units
- DMP 220 BASIC MODEL MAKING 3 Units
- DMP 221 ADVANCED MODEL MAKING I 3 Units
- DMP 222 ADVANCED MODEL MAKING II 3 Units
- DMP 230 3D COMPUTER DESIGN 3 Units
- DMP 240 3D RAPID MODEL MAKING AND PROTOTYPE DEVELOPMENT I 3 Units
- DMP 241 3D RAPID MODEL MAKING AND PROTOTYPE DEVELOPMENT II 3 Units
- DMP 260 MODELING AND PROTOTYPING METHODS AND MATERIALS 2 Units


## Total Units Required: 24.5

## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Digital Media Art

Dean: Joseph Poshek<br>Academic Chair, Visual Arts: Julie Kirk<br>Faculty: Terry Chatkupt

## Courses

The curriculum includes courses in digital photography, graphic design, typography, video production, 2D/3D animation, 3D modeling, game design, toy design and motion graphics. All courses in the curriculum are intended to develop the student's understanding and appreciation of the historical, aesthetic, conceptual, and technical aspects of digital media and interactive art within the larger context of art-making. These studio-based courses teach students the fundamentals of a range of digital skills while developing an original creative portfolio in preparation for working in the industry or transferring to a four-year college or university.

## Major

Students majoring in Digital Media Art are provided with a rich foundation in design fundamentals while focusing on the creative process of digital art. Additionally, students are encouraged to explore a range of digital media art courses that suit their interests in graphic design, digital photography, video, game/toy design and animation.

The current Digital Media Art/Interactive Media Art certificate program includes a Certificate of Proficiency in Animation for Games. This certificate is intended to produce relevant hires for the games and film industry.

## Program Student Learning Outcomes

Upon completion of the Digital Media Art/Interactive Media Art program, students will be able to

- Participate in class critiques of student projects and demonstrate a comprehension of the vocabulary and language of digital/interactive media art.
- Analyze and integrate the fundamentals of digital/interactive media art with art theory and aesthetics.
- Demonstrate a technical proficiency of industry-standard digital/interactive media art software to create professional design and multimedia projects.
- Apply a digital/interactive media art workflow including research, project development, and presentation considerations.
- Produce a professional digital media art portfolio.


## Potential Careers

Examples of careers in digital media art and interactive media art include the following:

- Animator for 3D Games and Film
- Digital Photographer
- Digital Videographer
- Game Designer
- Graphic Designer
- Motion Graphics Designer
- Pre-Visualization Artist for Games and Film
- 3D Asset Creator for Games and Film


## Animation for Games, COP

## Complete the following courses:

- ART 185 FIGURE DRAWING FOR ANIMATION
- IMA 88 3D CHARACTER ANIMATION II 3 Units
- IMA 120 WRITING AND STORYBOARDING FOR GAMES
- IMA 130 3D ANIMATION

Note: See a counselor for course substitution if a course is not available.
Total Units Required: 12

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Digital Media Art, AA

This program is occupational in nature. While most of the courses are transferable to CSU and some to UC, students should consult with their counselors or the Transfer Center to determine the extent to which courses may apply to specific programs at four-year institutions.

## Complete the following courses:

- DMA 51 BEGINNING DIGITAL PHOTOGRAPHY 3 Units
- DMA 55 GRAPHIC DESIGN I 3 Units
- DMA 65 TYPOGRAPHY 3 Units
- DMA 140 DIGITAL 2D DESIGN AND COLOR THEORY
- DMA 175 CORPORATE IDENTITY- TRADEMARKS AND LOGOS 3 Units


## Complete a total of 6 units from the following courses:

- DMA 52 INTERMEDIATE DIGITAL PHOTOGRAPHY 3 Units
- DMA 70 DIGITAL VIDEO PRODUCTION 3 Units
- DMA 120 Motion Graphics Animation
- IMA 130 3D Animation
- DMA 150 History of Graphic Design
- DMA 170 Publication Design and Prepress
- DMA 180 Visual Design for the Web
- DMA 195 ILLUSTRATION 3 Units


## Total Units Required: 24

## Recommended Electives:

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Digital Media Art, COA

This program is occupational in nature. While most of the courses are transferable to CSU and some to UC, students should consult with their counselors or the Transfer Center to determine the extent to which courses may apply to specific programs at four-year institutions.

## Complete the following courses:

- DMA 51 BEGINNING DIGITAL PHOTOGRAPHY 3 Units
- DMA 55 GRAPHIC DESIGN I 3 Units
- DMA 65 TYPOGRAPHY 3 Units
- DMA 140 DIGITAL 2D DESIGN AND COLOR THEORY
- DMA 175 CORPORATE IDENTITY- TRADEMARKS AND LOGOS 3 Units


## Complete a total of 6 units from the following courses:

- DMA 52 INTERMEDIATE DIGITAL PHOTOGRAPHY 3 Units
- DMA 70 DIGITAL VIDEO PRODUCTION 3 Units
- DMA 120 Motion Graphics Animation
- IMA 130 3D Animation
- DMA 150 History of Graphic Design
- DMA 170 Publication Design and Prepress
- DMA 180 Visual Design for the Web
- DMA 195 ILLUSTRATION 3 Units

Total Units Required: 24
Recommended Electives:

## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

# Drafting Technology and Engineering 

Interim Dean: Lianna Zhao, MD<br>Academic Chair: Matt Wolken<br>Faculty: Zahra Noroozi; Matt Wolken<br>\section*{Major}

Computer-aided design (CAD) is not only a broad-based discipline but also a rapidly growing segment of the technical job market. Students who wish to transfer to a university engineering program or build a career in computer modeling should seek enrollment in one or more CAD courses.

The complete computer-aided design certificate introduces students to mechanical, civil, electrical and architectural modeling techniques that conform to US and international industry standards. In addition to gaining intermediate and advanced knowledge of common CAD software platforms, students receive instruction on modern manufacturing methods, materials of construction, and inspection procedures. Using traditional as well as three-dimensional computer-based graphic modeling applications, laboratory assignments are designed to develop the skills that are required to produce, revise, test, animate, and interpret typical parts or assemblies.

Working professionals or students who have previous CAD experience may choose to enroll in industry-specific advanced courses or complete a certificate of proficiency to better meet their short- and long-term needs. By completing any one of the available certificates, students ensure a high level of competency within the technology while developing a strong foundation for their professional advancement.

## Program Student Learning Outcomes

## Computer-Aided Design

Upon completion of the drafting technology program, students will be able to

- Create ANSI and ISO standard orthographic drawings with all necessary layers, dimensions, and call-outs to industry standards using a common CAD software platform.
- Develop the basic knowledge of manufacturing, mechanical processes, and materials of construction used in design.
- Develop a working knowledge of manufacturing, mechanical processes, and materials of construction used in modern design in order to efficiently discuss and draft concepts for a common manufactured part or assembly.


## Potential Careers

Examples of industry segments hiring drafters include the following:

- Automotive Design and Manufacturing
- Biomedical and Healthcare Manufacturing
- Computer Product Manufacturing
- Construction
- Environmental Design
- Machinery Manufacturing
- Metal Manufacturing
- Military and Aerospace
- Professional and Scientific Technical Services
- Robotics and Automation
- Telecommunications
- Utilities and Local Government


## Civil Computer-Aided Design, COP

The civil computer-aided design certificate of proficiency is designed to give students a basic understanding of the terminology, methods, and analytical techniques that are required to accurately model the terrain, civil structures, and site plans used in land development.

## Complete the following courses:

- ENGR 21 INTRODUCTION TO ENGINEERING AND TECHNOLOGY 1 Unit
- ENGR 23 ENGINEERING GRAPHICS AND DESCRIPTIVE GEOMETRY 3 Units
- GEOG 1 PHYSICAL GEOGRAPHY 3 Units
- GEOG 1L PHYSICAL GEOGRAPHY LABORATORY 1 Unit
- GEOG 110 Introduction to Geographic Information Systems
- MATH 124 TRIGONOMETRY 3 Units


## Total Units Required: 16

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Computer-Aided Design, AS

Complete the following courses:

- DR 50 INTRODUCTION TO COMPUTER-AIDED DRAFTING 3 Units
- DR 101 ENGINEERING DRAWING AND DESIGN
- DR 203 INTRODUCTION TO ARCHITECTURAL DRAFTING 3 Units
- ENGR 21 INTRODUCTION TO ENGINEERING AND TECHNOLOGY 1 Unit
- ENGR 23 ENGINEERING GRAPHICS AND DESCRIPTIVE GEOMETRY 3 Units
- ENGR 54 PRINCIPLES OF MATERIALS SCIENCE AND ENGINEERING 3 Units
- ENGR 83 COMPUTER-AIDED DESIGN TECHNIQUES 3 Units
- MATH 124 TRIGONOMETRY 3 Units


## Total Units Required: 22

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Computer-Aided Design, COA

Complete the following courses:

- DR 50 INTRODUCTION TO COMPUTER-AIDED DRAFTING 3 Units
- DR 101 ENGINEERING DRAWING AND DESIGN
- DR 203 INTRODUCTION TO ARCHITECTURAL DRAFTING 3 Units
- ENGR 21 INTRODUCTION TO ENGINEERING AND TECHNOLOGY 1 Unit
- ENGR 23 ENGINEERING GRAPHICS AND DESCRIPTIVE GEOMETRY 3 Units
- ENGR 54 PRINCIPLES OF MATERIALS SCIENCE AND ENGINEERING 3 Units
- ENGR 83 COMPUTER-AIDED DESIGN TECHNIQUES 3 Units
- MATH 124 TRIGONOMETRY 3 Units


## Total Units Required: 22

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Mechanical Computer-Aided Design, COP

The mechanical computer-aided design certificate of proficiency is designed to give students a basic understanding of the terminology, methods, and analytical techniques which are used in the design and manufacture of mechanical parts and assemblies.

## Complete the following courses:

- DR 50 INTRODUCTION TO COMPUTER-AIDED DRAFTING 3 Units
- DR 101 ENGINEERING DRAWING AND DESIGN
- ENGR 21 INTRODUCTION TO ENGINEERING AND TECHNOLOGY 1 Unit
- ENGR 54 PRINCIPLES OF MATERIALS SCIENCE AND ENGINEERING 3 Units
- ENGR 83 COMPUTER-AIDED DESIGN TECHNIQUES 3 Units
- MATH 124 TRIGONOMETRY 3 Units


## Total Units Required: 16

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Pre-Engineering, COP

This program is designed to enhance students' interest in mathematics and sciences by pursuing a career in engineering. The program's core curriculum requires students to take mathematics and physics classes that are the foundation for all engineering projects. The certificate is composed of courses in engineering design, engineering statics and dynamics, material science, network analysis, thermodynamics and programming.

## Complete the following courses:

- CS 36 C PROGRAMMING 3 Units
or
- ENGR 20 INTRODUCTION TO PROGRAMMING AND PROBLEM SOLVING WITH MATLAB 3 Units
- ENGR 30 STATICS OF RIGID BODIES AND STRUCTURES 3 Units or
- ENGR 80 ENGINEERING DYNAMICS 3 Units
- ENGR 54 PRINCIPLES OF MATERIALS SCIENCE AND ENGINEERING 3 Units
- ENGR 70 INTRODUCTION TO NETWORK ANALYSIS 3 Units
or
- ENGR 91 INTRODUCTION TO THERMODYNAMICS 3 Units
- ENGR 83 COMPUTER-AIDED DESIGN TECHNIQUES 3 Units


## Total Units Required: 15

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Economics

Dean: Traci Fahimi
Academic Chair: Adam Ghuloum
Faculty: Adam Ghuloum; Mark McNeil

## Courses

Economics is the study of how people make choices when faced with scarcity. It is therefore the study of the process of decisionmaking by individuals, businesses, governments, or any other group that must make such choices, and the study of the institutional context in which these decisions are made.

Students will learn the following: 1) the economic problem of scarcity and its consequences for marginal decision making by individuals, firms and society; 2) Basic economic modeling, mathematical and graphical analysis will evaluate resource allocation and changes within markets and the economy; and 3) Government policies for solutions to market failure will assess advantages and disadvantages of government policy on markets and the economy.

## Program Student Learning Outcomes

Upon completion of the economics program, students will be able to

- Define and explain the fundamental economic problem of scarcity and it consequences relating to opportunity cost and marginal decision making of individuals, firms, and society
- Use the basic tools of economic modeling and graphing to evaluate the market system, the efficiency of resource allocation, and to predict changes within the market and economy.
- Identify government policies with an emphasis on solutions to market failures and assess the impact, advantages, and disadvantages of government policies on market outcomes and the economy.


## Potential Careers

Examples of careers in economics include the following:

- Account Manager
- Actuary
- Area Sales Manager
- Bank Officer
- Budget Analyst
- Business Forecaster
- Business Manager
- Buyer
- City Manager
- Claims Adjustor
- Commercial Casualty Underwriter
- Compensation Manager
- Credit Analyst
- Demographer
- Educator
- Employee Benefits Supervisor
- Financial Planner
- Insurance Analyst
- Investment Analyst/Banker
- Labor Relations Specialist
- Loan Officer
- Logistics Analyst
- Management Trainee
- Managing Consultant
- Managing Director
- Market Analyst
- Policy Analyst
- Pricing Analyst
- Product Control Manager
- Production Supervisor
- Purchasing Agent
- Quality Control Specialist
- Real Estate Agent/Appraiser
- Research Analyst/Research Assistant
- Securities Broker
- Statistician
- Trade Analyst
- Trust Officer
- Urban/Regional Planner


## Economics for Transfer, AA-T

Economics is the study of how people make choices when faced with scarcity. It is therefore the study of the process of decisionmaking by individuals, businesses, governments, or any other group that must make such choices, and the study of the institutional context in which these decisions are made.

Students will learn the following: 1) the economic problem of scarcity and its consequences for marginal decision making by individuals, firms and society; 2) Basic economic modeling, mathematical and graphical analysis will evaluate resource allocation and changes within markets and the economy; and 3) Government policies for solutions to market failure will assess advantages and disadvantages of government policy on markets and the economy.

## Required Core (13-14 units):

- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
or
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units or
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units or
- ECON 10H STATISTICS FOR BUSINESS AND ECONOMICS HONORS 3 Units or
- MGT 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units or
- MGT 10H STATISTICS FOR BUSINESS AND ECONOMICS HONORS 3 Units
- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units

List A: Select one course (3-5 units):

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units or
- ACCT 1BH MANAGERIAL ACCOUNTING HONORS 4 Units
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units or
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units

List B: Select one course (3-5 units):

- ECON 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units
- MATH 4A ANALYTIC GEOMETRY AND CALCULUS III 5 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units

Total Units Required: 19-24
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Economics, AA

This degree differs from the AA-T in economics because it offers a more general program in economics that prepares students for transfer to UCs, private colleges or the AA in Economics as a terminal degree.

Complete the following courses:

- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units or
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
or
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- ECON 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units
- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units


## Complete one of the following courses:

- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 11 A BRIEF COURSE IN CALCULUS 4 Units

Complete one of the following courses:

- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- CS 1 INTRODUCTION TO COMPUTER SYSTEMS 3 Units
or
- CS 1H INTRODUCTION TO COMPUTER SYSTEMS HONORS 3 Units
- ECON 105 PERSONAL FINANCIAL PLANNING 3 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units

Total Units Required: 22-25

## Recommended Electives:

- ACCT 1B MANAGERIAL ACCOUNTING 4 Units
- ACCT 1BH MANAGERIAL ACCOUNTING HONORS 4 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units
- WR 2H COLLEGE WRITING 2: CRITICAL THINKING, WRITING HONORS 4 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Electrical Technology

Interim Dean: Lianna Zhao, MD
Academic Chair: Matt Wolken
Faculty: Massimo Mitolo, PhD

## Courses

The curriculum in electrical and solar technology equips students with the skills necessary for working in a rapidly expanding and changing electrical and solar technological field. The core curriculum provides the theory necessary to understand existing and developing electrical technologies. Students learn to apply available technology to the solution of specific problems, with an emphasis on residential and commercial wiring design and troubleshooting of wiring systems. The curriculum provides for application of theory using hands-on learning environments. Transfer level mathematics will be employed.

## Major

The electrician trainee certificate program equips students for entry into the electrical industry in areas such as residential wiring, commercial wiring, facility maintenance, and troubleshooting electrical circuits and equipment. The solar trainee program is designed to both prepare students new to the industry and upgrade skills of those already employed in the electrical and solar photovoltaic industry.

The electrical and solar technology certificate programs provide a solid foundation for immediate employment or further study in either of these fields. After obtaining a certificate in either program, a student may seek employment as an electrical trainee, or solar installer; who designs, tests and services, residential wiring, commercial wiring, photovoltaic systems, facility maintenance, and installation of electrical equipment.

The solar photovoltaic systems technician certificate of proficiency is designed to provide the knowledge and skills required to work as an entry-level technician for a photovoltaic (PV) dealer, installer, or contractor. The student is introduced to residential wiring, system design, installation methods, safety and OSHA requirements, and maintenance practices through coursework and fieldwork applications. This certificate is recommended for individuals who intend to work in the solar PV industry.

Completion of the electrician and solar trainee certificates gives the student an even broader opportunity for personal, academic, and career growth. Students may also transfer into the California State University system and complete a bachelor's degree in electrical engineering or alternative energy.

## Program Student Learning Outcomes

Upon completion of the electronic technology program, students will be able to

- Analyze (predict or calculate the behavior or performance of) a specified electrical, residential or commercial wiring circuits, or solar photovoltaic system.
- Design (specifies all components, values, interconnections and, where applicable, associated hardware or software for) a solar or electrical circuit control system given standards or blueprints.
- Troubleshoot (locate and identify a faulty electrical component or wiring circuit in) a given non-functioning piece of electrical equipment or residential wiring circuit or solar photovoltaic system, and indicate the nature of the fault and remedy of the fault.
- Properly perform specified tests and measurements on current, voltage, resistance, and efficiency, on electrical motors, power panels, lighting circuits, electrical outlets, transformers, electrical devices, control circuits, and commercial operating systems.


## Potential Careers

Examples of careers in electrical and solar technology include the following:

- Apprentice Electrician Trainee
- Apprentice Maintenance Technician
- Residential Electrician Trainee
- Solar PV Technician Trainee
- Solar PV Installer Trainee
- Solar PV Contractor

With a bachelor's degree:

- Bachelor of Science in Electrical Engineering
- Electrical Engineering Technology Bachelor Degree


## California Electrician Certification Training

Irvine Valley College is an approved provider of Electrician Training under Assembly Bill 1087. Irvine Valley College provides instruction in part of the Curriculum Standards adopted by the Electrician Certification Curriculum Committee (ECCC) but does not provide instruction in all of the Curriculum Standards. The Electrician Training curriculum offered by Irvine Valley College covers the following Curriculum Standards adopted by the ECCC:

```
III. Math
IV. Electrical Theory
```


## Electrician Trainee, COP

## Complete the following courses:

- ET 102 BASIC ELECTRIC CIRCUITS I
- ET 104 BASIC ELECTRIC CIRCUITS II 4 Units
- ELEC 200A OSHA 101 Unit
- ELEC 201 RESIDENTIAL WIRING 4 Units
- ELEC 203 COMMERCIAL AND INDUSTRIAL WIRING 4 Units


## Total Units Required: 17

## Recommended Electives:

- ET 101 ELECTRONICS IN EVERYDAY LIFE 3 Units

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Energy Solar Photovoltaic Systems Technician, COP

Complete the following courses:

- ELEC 200 OSHA STANDARDS FOR CONSTRUCTION SAFETY 3 Units
- ELEC 201 RESIDENTIAL WIRING 4 Units
- ELEC 211 GRID-TIED SOLAR PHOTOVOLTAIC SYSTEMS 4 Units
- ELEC 212 ADVANCED SOLAR PHOTOVOLTAICS 3 Units


## Total Units Required: 17

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Electronic Technology

Interim Dean: Lianna Zhao, MD
Academic Chair: Matt Wolken
Faculty: Ray Chandos; Massimo Mitolo, PhD

## Goals and Objectives

The Electronic Technology program provides high quality instruction leading to a certificate of proficiency or achievement, an associate in science degree, and/or transfer to university programs in engineering technology. The program also prepares students for employment or advancement in the electronics and related industries.

## Courses

The curriculum in electronic technology equips students with the skills necessary for coping with a rapidly expanding and changing technological field. A core curriculum seeks to identify and emphasize those principles which are basic to the understanding of current and emerging technologies. In advanced courses, students learn to apply available technology to the solution of specific problems, with an emphasis on creative design and troubleshooting. The curriculum emphasizes a practical
rather than an abstract mathematical understanding of electronics, focusing heavily on laboratory study, while still maintaining a level of mathematical rigor appropriate to four-year programs in engineering technology.

## Major

A student majoring in Electronic Technology may choose from a number of career paths. The electronics aide certificate program equips the student for entry into the electronics industry in areas such as testing, quality assurance, customer support, production support, equipment maintenance and technical sales.

The Electronic Technology certificate of achievement program provides a solid foundation for immediate employment or further study in the field. After obtaining a certificate of achievement in Electronic Technology, a student may seek employment as an electronic technician, designing, testing and servicing telecommunication, medical, video, automotive, aerospace, and entertainment equipment.

Completion of the associate in science degree provides even broader opportunity for personal, academic, and career growth with employers who seek the additional oral and written communication skills acquired through general education courses. A student may also transfer into the California State University system and complete a bachelor's degree in engineering technology.

NOTE: While the Electronic Technology program instructs students in the knowledge and skills generally expected of workers entering the electronics and related fields, successful employment in industry depends on labor market conditions and other factors, and cannot be guaranteed.

## Prerequisite Skills

No previous knowledge of or experience with electronics is required for entry into the Electronic Technology program. It is recommended that students seeking to enter the program have or acquire basic mathematical skills at or above the pre-algebra level, equivalent to MATH 351 (Arithmetic Review and Pre-Algebra Mathematics).

## Enrollment Limitations

None.

## Program Student Learning Outcomes

Upon completion of the electronic technology program, students will be able to

- Analyze (predict or calculate the behavior or performance of) a specified electronic or electromechanical component, circuit, or system studied.
- Design (specify all components, values, interconnections and, where applicable, associated firmware or software for) an electronic or electromechanical circuit or system to perform a specified function to given standards.
- Troubleshoot (locate and identify a faulty component or functional block in) a given non-functioning electronic or electromechanical circuit or system, and indicate the nature of the fault.
- Properly perform specified tests and measurements on the electronic and electromechanical devices, circuits, and systems studied, using standard laboratory equipment and procedures.


## Career Options

Examples of careers in electronic technology include the following:

- Bench (Repair), Biomedical Instrument, Customer Support, Field Service, Research and Development or Test Technician
With a bachelor's degree:
- Design, Field Support or Manufacturing Engineer
- Electronic Engineering Technologist


## Electronic Technology, AS

Complete the following courses:

- ET 99 DIGITAL ELECTRONIC CIRCUITS 4 Units
- ET 102 BASIC ELECTRIC CIRCUITS I
- ET 104 BASIC ELECTRIC CIRCUITS II 4 Units
- ET 105 ELECTRONIC DEVICES AND CIRCUITS I 4 Units
- ET 107 ELECTRONIC DEVICES AND CIRCUITS II 4 Units

Complete at least 4 units from among the following courses:

- ET 116 INDUSTRIAL ELECTRONICS 4 Units
- ET 119 INDUSTRIAL AUTOMATION USING PLCS 2 Units
- ET 120 INTRODUCTION TO MICROPROCESSORS AND MICROCONTROLLERS 4 Units
- ET 122A EMBEDDED CONTROL SYSTEMS I 2 Units
- ET 122B EMBEDDED CONTROL SYSTEMS II 2 Units
- ET 168 COOPERATIVE WORK EXPERIENCE: ELECTRONIC TECHNOLOGY 1 Unit
- ET 168 COOPERATIVE WORK EXPERIENCE: ELECTRONIC TECHNOLOGY 2 Units
- ET 168 COOPERATIVE WORK EXPERIENCE: ELECTRONIC TECHNOLOGY 3 Units


## Total Units Required: 24

## Recommended Electives:

- CS 36 C PROGRAMMING 3 Units
- ET 101 ELECTRONICS IN EVERYDAY LIFE 3 Units
- PHYS 20 THE IDEAS AND EVENTS OF PHYSICS 4 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Electronic Technology, COA

Complete the following courses:

- ET 99 DIGITAL ELECTRONIC CIRCUITS 4 Units
- ET 102 BASIC ELECTRIC CIRCUITS I
- ET 104 BASIC ELECTRIC CIRCUITS II 4 Units
- ET 105 ELECTRONIC DEVICES AND CIRCUITS I 4 Units
- ET 107 ELECTRONIC DEVICES AND CIRCUITS II 4 Units

Complete at least 4 units from among the following courses:

- ET 116 INDUSTRIAL ELECTRONICS 4 Units
- ET 119 INDUSTRIAL AUTOMATION USING PLCS 2 Units
- ET 120 INTRODUCTION TO MICROPROCESSORS AND MICROCONTROLLERS 4 Units
- ET 122A EMBEDDED CONTROL SYSTEMS I 2 Units
- ET 122B EMBEDDED CONTROL SYSTEMS II 2 Units
- ET 168 COOPERATIVE WORK EXPERIENCE: ELECTRONIC TECHNOLOGY 1 Unit
- ET 168 COOPERATIVE WORK EXPERIENCE: ELECTRONIC TECHNOLOGY 2 Units
- ET 168 COOPERATIVE WORK EXPERIENCE: ELECTRONIC TECHNOLOGY 3 Units


## Total Units Required: 24

## Recommended Electives:

- CS 36 C PROGRAMMING 3 Units
- ET 101 ELECTRONICS IN EVERYDAY LIFE 3 Units
- PHYS 20 THE IDEAS AND EVENTS OF PHYSICS 4 Units

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Electronics Aide, COP

Complete the following courses:

- ET 99 DIGITAL ELECTRONIC CIRCUITS 4 Units
- ET 102 BASIC ELECTRIC CIRCUITS I
- ET 104 BASIC ELECTRIC CIRCUITS II 4 Units


## Total Units Required: 16

## Recommended Electives:

- ET 101 ELECTRONICS IN EVERYDAY LIFE 3 Units


## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## English

Interim Dean: Brooke Bui, PhD
Academic Co-Chairs, English: Lewis Long and Virginia Shank, PhD
Faculty: Lisa Alvarez; Daniel deRoulet, PhD; William Etter, PhD; Julie Evans; Melissa Garcia Knoll, PhD; Jeffrey Johnson, PhD; Rebecca Kaminsky; Emily Liu, PhD; Lewis Long; Kurt Meyer; Kay Ryals, PhD; Deanna Scherger, PhD; Summer Serpas; Virginia Shank, PhD

## Courses

The department offers a range of courses for native speakers (non-native speakers of English are advised to take the ESL writing sequence). The English curriculum includes remedial and preparatory courses in reading and writing; college-level composition and reading courses for transfer and associate degree students; and courses in creative writing and literature. The curriculum emphasizes the integration of reading and writing throughout its courses, reflecting the faculty's concern that students not divorce the study of language from the study of cultures nor lose sight of the uses or abuses of writing within a cultural context. The courses offered through the department meet general education and transfer requirements in English, critical thinking, literature, and humanities.

## Fall 2018 Writing Sequence:



Spring 2019 Writing Sequence:

## IRVINE VALLEY COLLEGE WRITING SEQUENCE



## Major

Students majoring in English at the lower division level concentrate on learning how to interpret literature critically and imaginatively, and how to write prose that is clear, exact, and expressive. Thus the major is appropriate for students who desire or require the ability to be closely attentive to language and to its ramifications. Students anticipating careers in law, education, communications, governmental affairs, and business may find the English major especially helpful. The wide versatility of the English major makes it generally appropriate for students who career inclinations may be uncertain or indefinite, since the abilities one masters as an English major may be applied to a wide range of contexts and circumstances. The major is also designed for transfer students intending upper division study in literature, criticism, or related fields.

English majors at Irvine Valley College may elect an emphasis either in literature or in writing. In both cases, students should complete both Writing 1 and Writing 2 in fulfillment of language and rationality requirements within the general education package. The faculty recommends that English majors do not select a literature course to meet the humanities requirement for general education, but explore related subjects in the humanities that may be of interest to them.

The curriculum emphasizes the integration of reading and writing throughout its courses reflecting the faculty's belief that the study of language includes the study of culture. English students examine a broad range of topics within composition, creative writing and literature.

Upon completion of the Associate in Arts in English for Transfer (AA-T in English) students will be able to read, write, and think critically in producing essays and original work that demonstrates the craft of a given genre. Additionally, students will be able to interpret literary texts within their contexts, reflecting diversity in genre, historical period, and cultural expression.

The proposed Associate in Arts in English for Transfer (AA-T) is designed to assist students in the seamless transferring to a CSU and complete a Bachelor Degree in English.

## Program Student Learning Outcomes

## Literature

Upon completion of the English program in literature, students will be able to

- Interpret literature critically and imaginatively, and respond in writing that is clear, exact, and expressive.
- Demonstrate through both speaking and writing how literature might embody and generate meaning, reflect and create culture, and engage the human imagination.
- Analyze the major types of literary expression as well as recurrent conventions, concerns, and values central to literature and to the understanding of literary texts and contexts.
- Possess knowledge of literary materials reflecting diversity in genre, historical period, and cultural expression.
- Possess knowledge of foundational classical and modern texts; major literary periods and traditions; major genres and literary forms; and non-canonical texts, including those of marginalized peoples and emergent cultures whose literature has traditionally been ignored.


## Writing

Upon completion of the English program in writing, students will be able to

- Demonstrate proficiency in essential, course-appropriate skills in reading, research, critical and creative problem solving, speaking, and writing in order to produce, within a literary genre, original work that demonstrates an understanding of both the writing process and the stylistic craft choices of the genre.


## Associate in Arts in English for Transfer (AA-T)

Upon completion of the Associate in Arts in English for Transfer (AA-T in English), students will be able to:

## Literature

- Interpret literature critically and imaginatively, and respond in writing that is clear, exact, and expressive.
- Demonstrate through both speaking and writing how literature might embody and generate meaning, reflect and create culture, and engage the human imagination.
- Analyze the major types of literary expression as well as recurrent conventions, concerns, and values central to literature and to the understanding of literary texts and contexts.
- Possess knowledge of literary materials reflecting diversity in genre, historical period, and cultural expression.
- Possess knowledge of foundational classical and modern texts; major literary periods and traditions; major genres and literary forms; and non-canonical texts, including those of marginalized peoples and emergent cultures whose literature has traditionally been ignored.


## Writing

- Demonstrate proficiency in essential, course-appropriate skills in reading, research, critical and creative problem solving, speaking, and writing in order to produce, within a literary genre, original work that demonstrates an understanding of both the writing process and the stylistic craft choices of the genre.


## Potential Careers

Employers and the marketplace value people who can write, research, organize, rewrite, and edit. English majors possess these skills. English majors learn to read and write carefully and thoughtfully, paying close attention to words, their exact meanings, and their connotations. Examples of careers include but are not limited to the following:

- Administrative Assistant
- Advertising Copy Writer
- Arts Administrator
- Attorney
- Business Analyst
- Communication Consultant
- Copy Editor
- Educator
- Fiction Writer
- Marketing Coordinator
- Paralegal
- Project Manager
- Public Relations Office
- Publications Editor
- Reporter
- Research Assistant
- Technical Writer


## English - Creative Writing, AA

Complete the following courses:

- LIT 1 INTRODUCTION TO LITERATURE 3 Units
- LIT 24 CONTEMPORARY LITERATURE 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units OR
- WR 2H COLLEGE WRITING 2: CRITICAL THINKING, WRITING HONORS 4 Units
- WR 10 INTRODUCTION TO CREATIVE WRITING 3 Units

Complete 3 units from the following courses:

- WR 11 WRITING SHORT FICTION 3 Units
- WR 13 WRITING POETRY 3 Units

Complete 3 units from the following courses:

- LIT 30 INTRODUCTION TO THE NOVEL 3 Units
- LIT 31 INTRODUCTION TO SHORT FICTION 3 Units
- LIT 32 INTRODUCTION TO POETRY 3 Units
- LIT 33 INTRODUCTION TO DRAMA 3 Units

Complete 3 units from the following courses:

- LIT 40 INTRODUCTION TO THE HEBREW BIBLE (OLD TESTAMENT) 3 Units
- LIT 41 INTRODUCTION TO THE NEW TESTAMENT 3 Units
- LIT 43 INTRODUCTION TO SHAKESPEARE 3 Units

Complete one of the following courses:

- LIT 7 SURVEY OF CHILDREN'S LITERATURE 3 Units
- LIT 45 WOMEN IN LITERATURE 3 Units
- LIT 48 FILM AND LITERATURE 3 Units
- LIT 49 POPULAR LITERATURE 3 Units


## Total Units Required: 25

## Recommended Electives:

- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- Any humanities or literature course, or courses in the history and criticism of the arts, or foreign language courses

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## English - Literature, AA

Complete the following courses:

- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units OR
- WR 2H COLLEGE WRITING 2: CRITICAL THINKING, WRITING HONORS 4 Units
- LIT 1 INTRODUCTION TO LITERATURE 3 Units
- LIT 46 INTERCULTURAL LITERATURE 3 Units

Complete 6 units from the following courses:

- LIT 20 SURVEY OF BRITISH LITERATURE TO 17763 Units
- LIT 21 BRITISH LITERATURE FROM BLAKE TO THE PRESENT 3 Units
- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units


## Complete 3 units from the following courses:

- LIT 30 INTRODUCTION TO THE NOVEL 3 Units
- LIT 31 INTRODUCTION TO SHORT FICTION 3 Units
- LIT 32 INTRODUCTION TO POETRY 3 Units
- LIT 33 INTRODUCTION TO DRAMA 3 Units


## Complete 3 units from the following courses:

- LIT 40 INTRODUCTION TO THE HEBREW BIBLE (OLD TESTAMENT) 3 Units
- LIT 41 INTRODUCTION TO THE NEW TESTAMENT 3 Units
- LIT 43 INTRODUCTION TO SHAKESPEARE 3 Units

Total Units Required: 22
Recommended Electives:

- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- PHIL 10 ANCIENT PHILOSOPHY 3 Units
- PHIL 11 MODERN PHILOSOPHY 3 Units
- RD 174 Critical Reading
- WR 10 INTRODUCTION TO CREATIVE WRITING 3 Units
- WR 11 WRITING SHORT FICTION 3 Units
- WR 13 WRITING POETRY 3 Units
- Any humanities or literature course, or courses in the history and criticism of the arts, or foreign language courses

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## English for Transfer, AA-T

This program was revised for the August 2017 edition of the IVC catalog. Please consult a counselor if you have any questions.

## Complete the following courses:

- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units

OR

- WR 2H COLLEGE WRITING 2: CRITICAL THINKING, WRITING HONORS 4 Units
- LIT 1 INTRODUCTION TO LITERATURE 3 Units


## List A: Select two (6 units):

- LIT 20 SURVEY OF BRITISH LITERATURE TO 17763 Units
- LIT 21 BRITISH LITERATURE FROM BLAKE TO THE PRESENT 3 Units
- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units

List B: Select one (3 units) - Any course from List A not already used, or the following:

- LIT 33 INTRODUCTION TO DRAMA 3 Units
- LIT 46 INTERCULTURAL LITERATURE 3 Units
- WR 10 INTRODUCTION TO CREATIVE WRITING 3 Units
- WR 11 WRITING SHORT FICTION 3 Units
- WR 13 WRITING POETRY 3 Units


## List C: Select one (3 units) - Any course from List A or B not already used, or the following:

- LIT 7 SURVEY OF CHILDREN'S LITERATURE 3 Units
- LIT 24 CONTEMPORARY LITERATURE 3 Units
- LIT 30 INTRODUCTION TO THE NOVEL 3 Units
- LIT 31 INTRODUCTION TO SHORT FICTION 3 Units
- LIT 32 INTRODUCTION TO POETRY 3 Units
- LIT 40 INTRODUCTION TO THE HEBREW BIBLE (OLD TESTAMENT) 3 Units
- LIT 41 INTRODUCTION TO THE NEW TESTAMENT 3 Units
- LIT 43 INTRODUCTION TO SHAKESPEARE 3 Units
- LIT 45 WOMEN IN LITERATURE 3 Units
- LIT 48 FILM AND LITERATURE 3 Units
- LIT 49 POPULAR LITERATURE 3 Units


## Total Units Required: 19

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

# English as a Second Language 

Interim Dean: Brooke Bui, PhD
Academic Co-Chairs: Rebecca Beck; Jeff Wilson
Faculty: Rebecca Beck; Brent Warner; Jeff Wilson

## Courses

The English as a Second Language (ESL) curriculum offers courses in reading, writing, conversation, and pronunciation for beginning, intermediate, and advanced second-language students. Beginning ESL courses will introduce students to English and lay a foundation upon which to build more sophisticated grammar structures and vocabulary. Upon completion of the advanced ESL sequence, students will be prepared to take college-level English composition courses and/or mainstream into the general college curricula.

## Program Student Learning Outcomes

Upon completion of the English as a Second Language program, students will be able to

- Write clearly and accurately in a variety of contexts and formats in English.
- Read and comprehend authentic texts in a variety of contexts and formats in English.
- Listen and comprehend spoken English in a variety of contexts and formats in English.
- Speak with comprehensibility and a high degree of fluency in English.


## ESL SEQUENCE TO WRITING 1

WR 1 or 1 H (4 units): COLLEGE WRITING 1/ COLLEGE WRITING 1 HONORS
$\uparrow$
ESL 201 (5 units): ACADEMIC WRITING III AND ESL 201L (. 5 units): ESL LANGUAGE CONFERENCE

ESL 301 (5 units): ACADEMIC WRITING II AND ESL 301L (. 5 units): ESL LANGUAGE CONFERENCE

ESL 370 (5 units):
ACADEMIC WRITING I

| $\uparrow$ | $\uparrow$ |
| :---: | :---: |
| AESL 505 AND | ESL 361B AND |
| BELOW (0 units): | BELOW (5 units): |
| MULTI-SKILLS | MULTI-SKILLS |
| INSTRUCTION | INSTRUCTION |


*Students must take the ESL assessment to enroll in a core course

## Fine Arts

## Dean: Joseph Poshek

Academic Chair, Communication Studies: Gary Rybold, PhD
Academic Chair, Music: Matthew Tresler, DMA
Academic Chair, Theatre: M. Scott Grabau
Academic Chair, Visual Arts: Julie Kirk

Faculty: Patricia Beckman-Wells, EdD; Susan Boettger, DMA; Terry Chatkupt; Ron Ellison; Joseph Gerges; M. Scott Grabau; Amy Grimm; Julie Kirk; Jennifer La Curan; Daniel Luzko, DMA; Jerry McGrath; Bill Neesen; Gary Rybold, PhD; Edwin Tiongson; Julianna Throckmorton-French, JD; Matthew Tresler, DMA

## Courses

The program in fine arts is an interdepartmental major in the fine and performing arts: music, dance, theatre, speech, visual arts, and photography.

## Major

The degree in fine arts is intended to provide the student with an arts education emphasizing the diversity and yet commonality within the traditional and nontraditional arts. To the extent that we recognize a distinct "artistic" capacity or form of perceptiondifferent from analysis and apart from language-we assume that the artist may realize similar ends in a variety of media and that all the arts are in this sense profoundly interconnected. The fine arts major provides students with the opportunity to seek this interconnection. The diversity and flexibility of the major make it appropriate for a range of career alternatives, especially within fields demanding a high degree of expressive and creative ability. The major is also a fine choice for the general arts student who does not want to specialize within a single medium at the lower-division level.

## Program Student Learning Outcomes

Upon completion of the fine arts program, students will be able to

- Gain an increased aesthetic awareness and appreciation of the arts from a critical point of view.


## Potential Careers

Career options in fine arts incorporate a variety of professional paths that address the creative process in education, business, or nonprofit organizations. These might include, but are not limited to, the following:

- Galleries or Museums
- Music Industry
- Public Arts Instruction
- Theatre Management


## Fine Arts, AA

The program in fine arts is an interdepartmental major in the fine and performing arts: music, dance, theatre, speech, visual arts, and photography. The degree in fine arts is intended to provide the student with an arts education emphasizing the diversity and yet commonality within the traditional and nontraditional arts. To the extent that we recognize a distinct "artistic" capacity or form of perception-different from analysis and apart from language-we assume that the artist may realize similar ends in a variety of media and that all the arts are in this sense profoundly interconnected. The fine arts major provides students with the opportunity to seek this interconnection. The diversity and flexibility of the major make it appropriate for a range of career alternatives, especially within fields demanding a high degree of expressive and creative ability. The major is also a fine choice for the general arts student who does not want to specialize within a single medium at the lower division level. Students must complete a minimum of 60 units of credit, including the courses in the major ("Major Requirements") and general education requirements (pages 43-49), with an overall GPA of 2.0 or better, and a grade of "A," "B," "C," or "P" in all courses to be
counted toward the major. A minimum of 12 units must be completed at Irvine Valley College. See pages 33-34 for further information.

Complete the following courses:

- ARTH 4 INTRODUCTION TO ART THEORY 3 Units
- TA 27 INTRODUCTION TO FINE ARTS IN THEATER 3 Units

Complete at least one of the following courses:

- MUS 1 THE BASICS OF MUSIC 3 Units
- MUS 3 HARMONY I 4 Units
- MUS 20 MUSIC APPRECIATION 3 Units

Complete at least one of the following courses:

- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 21 THEATRE APPRECIATION-CONTEMPORARY 3 Units

Complete at least one of the following

- PHOT 1 HISTORY OF PHOTOGRAPHY 3 Units OR
- ARTH 1 HISTORY OF PHOTOGRAPHY 3 Units
- PHOT 54 BEGINNING PHOTOGRAPHY 3 Units

Complete at least one of the following courses:

- COMM 30 INTRODUCTION TO ORAL INTERPRETATION 3 Units

Total Units Required: 18-20
Recommended electives may be selected from among the transfer-level courses in the following programs:

Art, Art History, Communication Studies, Music, Photography, and Theatre Arts.
To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Gender Studies

Interim Dean: Brooke Bui, PhD

Academic Chair: Jamie Poster, PhD
Faculty: Brittany Adams, PhD; Melissa Knoll, PhD; Jamie Poster, PhD

## Courses

Gender Studies is an interdisciplinary field of inquiry that examines the intersection between gender with race, sexuality, ethnicity, nationality, class, and/or other inequalities. The field examines structures of power as it relates to gender in the context of historical and contemporary struggles for social, political, cultural, and economic change. Students will examine the social construction of femininity, masculinity, sexual identity, and gender identity from a feminist perspective.

## Program Student Learning Outcomes

Upon completion of the gender studies program, students will be able to

- Students will analyze and assess historical, social, political, cultural, economic, and psychological forces that have led to the construction of gender in both global and national contexts.
- Students will identify and evaluate the development of feminist theories as well as the contemporary and historical experiences of difference including but not limited to economic classes, sexual orientations, age, ability, and cultural and racial backgrounds.


## Geography

## Dean: Traci Fahimi

Academic Chair: Jodi Titus
Faculty: Jodi Titus

## Courses

Geography is the academic discipline which studies the earth and its people in their many mutual relationships and regional variations. Geography students examine a broad range of topics-from the physical nature of the earth's surface and atmosphere to the varied human activities which interrelate with the physical environment and result in a distinct spatial imprint on the land. As a result of its interdisciplinary nature, geography is an outstanding discipline for students who wish to integrate the physical and social sciences.

## Major

An undergraduate major in geography can prepare the student for a professional career in urban and community planning, resource management, earth and atmospheric sciences, cartography and geographic information systems, education, and regional
analysis. With careful planning, students who complete a four-year degree in geography are discovering an expanding variety of employment possibilities.

## Program Student Learning Outcomes

Upon completion of the geography program, students will be able to

- Identify and demonstrate an understanding of "Five Themes of Geography."
- Demonstrate an understanding of Earth's physical landscape, human activities, and how they shape each other at various scales over time.


## Potential Careers (For Non-Transfer Degree Recipients)

Examples of careers for the geography major include the following:

## Cartography/GIS (Geographic Information Systems)

- Cartographer/Computer Mapper
- Geographic Information Specialist
- Remote-Sensing Analyst
- Surveyor


## Cultural and Human Geography

- Community Developer
- Map Librarian
- Peace Corps Volunteer


## Economic Geography

- Location Expert
- Market Researcher
- Real Estate Agent/Broker/Appraiser
- Traffic Manager (Shipper)/Route Delivery Manager


## Environmental Studies

- Environmental Manager
- Forestry Technician
- Hazardous Waste Planner
- Park Ranger


## Geographic Education

- College Professor
- Elementary/Secondary School Teacher
- Overseas Teacher


## Physical Geography and Earth Science

- Coastal Zone Manager
- Hydrologist
- Outdoor Guide
- Soil Conservationist/Agricultural Extension Agent
- Weather Forecaster


## Regional Geography

- Area Specialist
- International Business Representative
- Travel Agent


## Urban and Regional Planning

- Health Services Planner
- Transportation Planner
- Urban and Community Planner


## Geography for Transfer, AA-T

Complete the following core courses:

- GEOG 1 PHYSICAL GEOGRAPHY 3 Units
- GEOG 1L PHYSICAL GEOGRAPHY LABORATORY 1 Unit
- GEOG 2 CULTURAL GEOGRAPHY 3 Units

Complete two to three courses (6-9 units) from the following:

- GEOG 3 WORLD REGIONAL GEOGRAPHY 3 Units
- GEOG 10 INTRODUCTION TO WEATHER AND CLIMATE 3 Units
- GEOG 12 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 2 Units
- GEOG 38 CALIFORNIA GEOGRAPHY 3 Units
- GEOG 102 GEOGRAPHY FIELD STUDIES: WESTERN UNITED STATES 2 Units

Complete two courses (6-7 units) from the following:

- GEOG 20 GLOBAL ENVIRONMENTAL PROBLEMS 3 Units
- GEOL 1 PHYSICAL GEOLOGY 4 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units

Total Units Required: 19-23
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Geography, AA

Complete the following courses:

- GEOG 1 PHYSICAL GEOGRAPHY 3 Units
- GEOG 1L PHYSICAL GEOGRAPHY LABORATORY 1 Unit
- GEOG 2 CULTURAL GEOGRAPHY 3 Units
- GEOG 3 WORLD REGIONAL GEOGRAPHY 3 Units
- GEOG 20 GLOBAL ENVIRONMENTAL PROBLEMS 3 Units
- GEOG 38 CALIFORNIA GEOGRAPHY 3 Units

Complete one of the following courses:

- GEOG 10 INTRODUCTION TO WEATHER AND CLIMATE 3 Units
- GEOG 12 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 2 Units
- GEOG 102 GEOGRAPHY FIELD STUDIES: WESTERN UNITED STATES 2 Units


## Total Units Required: 18-19

## Recommended Electives:

- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- WR 1 COLLEGE WRITING 14 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Geology

Dean: Lianna Zhao, MD
Academic Chair: Alec Sim, PhD
Faculty: Amy Stinson

## Courses

Geology courses at Irvine Valley College provide academic instruction in basic geological concepts and theories, and provide a solid foundation for students' preparing for further academic study of the discipline.

Introductory courses range from survey courses in earth science, to field geology courses that explore California and our national parks and monuments, to the study of natural hazards. More specialized courses examine the physical and biological evolution of the planet Earth, and rocks and minerals found in its crust. The curriculum also includes a wide range of popular field courses within California and other areas in western North America.

## Major

The course requirements for a major in geology are intended to provide a solid foundation for a variety of student needs. Students pursuing the major may meet transfer requirements for a baccalaureate institution by completing the Associate in Arts in Geology. Students pursuing the major may meet transfer requirements for a four-year college or university; or they may complete an Associate in Arts degree in geology. For those who intend to pursue upper-division or graduate study, introductory courses in the other sciences are recommended and are necessary in addition to the core courses required for the major.

## Program Student Learning Outcomes

Upon completion of the geology program, students will be able to

- Identify the major rock-forming minerals, and classify the three types of rocks.
- Locate and identify the major lithospheric plates and plate boundaries.
- Evaluate earthquake and volcanic activity on global and local scales, and relate this activity to plate tectonic processes.
- Identify and discuss the major evolutionary changes that define the divisions of the geologic time scale.


## Potential Careers (For Non-Transfer Degree Recipients)

Examples of careers for the geology major include the following:

- City or County Geologist
- Engineering Geologist
- Environmental Geologist
- Exploration Geologist with an oil or mineral's company
- Geology teacher


## Geology for Transfer, AS-T

Geology courses at Irvine Valley College provide academic instruction in basic geological concepts and theories, and provide a solid foundation for students' preparing for further academic study of the discipline. The course requirements for a major in geology are intended to provide a solid foundation for a variety of student needs. Students pursuing the major may meet transfer requirements for a baccalaureate institution by completing the Associate in Science in Geology for Transfer (AS-T in Geology).

## Required core:

- GEOL 1 PHYSICAL GEOLOGY 4 Units
- GEOL 2 HISTORICAL GEOLOGY 4 Units
- CHEM 1A GENERAL CHEMISTRY I 5 Units
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units

OR

- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units

OR

- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units


## Total Units Required: 28

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Geology, AA

Geology courses at Irvine Valley College provide academic instruction in basic geological concepts and theories, and provide a solid foundation for students' preparing for further academic study of the discipline. Introductory courses range from survey courses in earth science, to field geology courses that explore California and our national parks and monuments, to the study of natural hazards. More specialized courses examine the physical and biological evolution of the planet Earth, and rocks and minerals found in its crust. The curriculum also includes a wide range of popular field courses within California and other areas in western North America. The course requirements for a major in geology are intended to provide a solid foundation for a variety of student needs. Students pursuing the major may meet transfer requirements for a baccalaureate institution by completing the Associate in Arts in Geology. Students pursuing the major may meet transfer requirements for a four-year college or university; or they may complete an Associate in Arts degree in Geology. For those who intend to pursue upper-division or graduate study, introductory courses in the other sciences are recommended and are necessary in addition to the core courses required for the major. Career Options: Examples of careers in geology include the following: City or County Geologist; Engineering Geologist; Environmental Geologist; Exploration Geologist with an oil or mineral's company; Geology teacher.

## Complete the following courses:

- CHEM 1A GENERAL CHEMISTRY I 5 Units
- CHEM 1B GENERAL CHEMISTRY II 5 Units
- GEOL 1 PHYSICAL GEOLOGY 4 Units

OR

- ERTH 20 INTRODUCTION TO EARTH SCIENCE 4 Units

OR

- MS 20 INTRODUCTION TO OCEANOGRAPHY 4 Units
- GEOL 2 HISTORICAL GEOLOGY 4 Units
- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units OR
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units OR
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units

Complete two of the following courses:

- PHYS 2A INTRODUCTION TO PHYSICS 4 Units AND
- PHYS 2B INTRODUCTION TO PHYSICS 4 Units OR
- PHYS 4A GENERAL PHYSICS 4 Units AND
- PHYS 4B GENERAL PHYSICS 4 Units

Complete one of the following courses:

- GEOL 165 GEOLOGY FIELD STUDIES: YOSEMITE NATIONAL PARK 1 Unit
- GEOL 169 GEOLOGY FIELD STUDIES-ZION NATIONAL PARK, UTAH 1 Unit
- GEOL 170 GEOLOGY FIELD STUDIES: NATIONAL PARKS AND MONUMENTS 1 Unit
- GEOL 181 GEOLOGY FIELD STUDIES: COASTAL AND OFFSHORE GEOLOGY 1 Unit
- GEOL 186 GEOLOGY FIELD STUDIES: GEOLOGY OF CALIFORNIA 1 Unit


## Total Units Required: 37

## Recommended Electives:

- GEOL 3 GEOLOGY OF CALIFORNIA 3 Units
- GEOL 23 NATURAL DISASTERS 4 Units
- ENGR 23 ENGINEERING GRAPHICS AND DESCRIPTIVE GEOMETRY 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Global Studies

## Global Studies, AA


#### Abstract

Global Studies is an interdisciplinary program designed to enhance student knowledge and understanding of global processes and their implications for societies, markets, governments, cultures, and environments around the world. The program also introduces students to the study of global issues and perspectives while providing the methodological tools and techniques necessary to analyze them at multiple (local, regional, and international) levels. An understanding of the world's social, economic, political, cultural, and natural systems and their growing interdependence will not only enable students to think globally, but prepare them to live, work, and participate in an increasingly globalized world as well. The goal of the Global Studies Program at Irvine Valley College is to prepare students for further work in international studies and world affairs through the study of other cultures, social, economic, and political systems, world history and geography. The program is designed to encourage students to think beyond local perspectives and to think globally. Students will learn how to relate their knowledge of a particular part of the world to be larger trends and issues that affect the international community as a whole.


## Complete the following core courses:

- GLBL 1 INTRODUCTION TO GLOBAL STUDIES 3 Units
- GLBL 2 INTRODUCTION TO GLOBAL ISSUES 3 Units
- PS 14 INTERNATIONAL RELATIONS 3 Units
or
- PS 14H INTERNATIONAL RELATIONS HONORS 3 Units


## Complete 6 units from the courses below:

- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units or
- ANTH 2H CULTURAL ANTHROPOLOGY HONORS 3 Units
- GEOG 3 WORLD REGIONAL GEOGRAPHY 3 Units
or
- GEOG 3H WORLD REGIONAL GEOGRAPHY HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
or
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units


## Complete 6 units from the courses below:

- ECON 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units
- GEOG 2 CULTURAL GEOGRAPHY 3 Units
- GEOG 20 GLOBAL ENVIRONMENTAL PROBLEMS 3 Units
- HIST 2 THE HISTORY OF WORLD CIVILIZATIONS SINCE 15003 Units
- PS 12 COMPARATIVE POLITICS 3 Units
or
- PS 12H COMPARATIVE POLITICS HONORS 3 Units


## Complete one of the following:

- PS 21 MODEL UNITED NATIONS 3 Units
- ECON 167 COOPERATIVE WORK EXPERIENCE: ECONOMICS 1 Unit
- ECON 167 COOPERATIVE WORK EXPERIENCE: ECONOMICS 2 Units or
- ECON 167 COOPERATIVE WORK EXPERIENCE: ECONOMICS 3 Units
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 1 Unit
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 2 Units or
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 3 Units


## Total Units Required: 22-24

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Health Science

Dean: Lianna Zhao, MD<br>Academic Chair: Roland Rodriguez<br>Faculty: Devon Bradley, PhD; Meredith Dorner; David Fretz; Diana Hurlbut, PhD; Jefferey Kaufmann, PhD; Emalee<br>Mackenzie; Amy McWhorter, PhD; Roland Rodriguez; Katherine Schmeidler, PhD; Justin Wright

## Major

The requirements for majors in the life sciences are intended to provide a solid foundation for the student who wishes to pursue further study at the baccalaureate level and for some graduate-level programs. They are also intended for students who plan to enter a preprofessional or professional program in a health-related field. The faculty strongly recommends that students without a firm foundation in basic biological principles complete both Biology 93 and Biology 94 in preparation for the more specialized courses. In addition to the core courses for the major or health-related fields, an introduction to other sciences is usually recommended and necessary for more advanced study. The biology faculty therefore suggests that students complete appropriate courses in chemistry, physics, and mathematics concurrently with biology core courses. Students should refer to the requirements of prospective institutions or seek advice from a member of the biology faculty or a counselor before choosing electives.

## Program Student Learning Outcomes

## Biology

Upon completion of the AA in Health Sciences, students will be able to

- Communicate scientific processes and ideas effectively in written and oral forms
- Demonstrate understanding of the mechanisms driving evolution, the role of evolution as the central unifying concept of biology and describe similarities and differences of the major taxonomic groups.
- Effectively apply current technology and scientific methodologies for problem solving.
- Identify and explain relationships between form and function of biological structures at the molecular cellular, organismal, and ecosystem levels.
- Locate and evaluate various types of scientific information including primary research articles, mass media sources and world wide web.
- Recognize and apply basic ethical principles to biological practices and understand the role of scientists and biological science in society.
- Demonstrate understanding of how organisms interact with one another and with their environment, and explain interactions at the population and community levels.
- Demonstrate understanding of the fundamental biological processes of metabolism, homeostasis, growth, reproduction, development, genetics and whole organism physiology.
- Apply the metric system using standard laboratory equipment to systematically collect, organize, interpret, and assess data in graphs, tables or figures then integrate the acquired knowledge to make informed judgments and conclusions.


## Potential Careers

The Health Sciences Program is dedicated to offering a quality program that will meet the lifelong learning needs of our students and prepare them for transfer to a CSU or a UC in order for them to obtain their Bachelor of Science in Nursing or other allied health professions.

An AA degree in the Health Sciences will prepare students for entry into certificate or technical training programs including:

- Nursing
- Biotechnology
- Dental Assisting/Hygiene
- Emergency Medical Technology
- Paramedic Training
- Laboratory Research
- Physical Therapy Assisting
- Medical Laboratory Technician
- Pharmaceutical sales representative
- Occupational therapy
- Pharmacy
- Vision Care
- Radiology Technician

Local and state regulations govern the licensing of nurses and other health professions. Eligibility for employment depends upon performance in competitive examinations as well as performance in education and experience levels. In general, any job which has its focus in helping to cure or prevent disease and/or ailment falls into this cluster of jobs.

Students that earn the Associate of Arts in Health Sciences may find immediate work in the following fields:

- Public relations
- Long-term care facilities
- Community organizations
- Biotechnology research
- State and Federal Health departments
- Home Health Care


## History

Interim Dean: Brooke Bui, PhD
Academic Chair: Jamie Poster, PhD
Faculty: Brittany Adams, PhD; Henry Carnie, PhD; Toshio Whelchel

## Courses

Courses are offered in American history, European history, and the history of selected non-European and non-Western cultures. The curriculum emphasizes not the rote recognition of facts, but the study of history as a means of developing critical intelligence and fostering an awareness of ourselves and our world through examination of the past, including examination of ways in which human beings have attempted to understand the meaning of historical events and issues. Courses offered through the department meet general education and transfer requirements in American history, humanities, and certain facets of the social sciences. In addition, courses may be taken to satisfy requirements for an Associate in Arts degree with a major in history.

## Major

Students majoring in history at the lower-division level concentrate on learning how to use the skills of critical thinking to identify basic historical themes, but more importantly to analyze the nature in which these themes interact within any given society to determine its values, legitimize its authority, and perpetuate its existence. Thus the major is appropriate for students who wish to acquire an understanding of the ideas that have shaped the culture of this country, or for students who wish to transcend their own cultural limits and, by a study of other societies in other ages, to open their eyes to the diversity of the human environment.

History majors develop an ability to communicate well, both orally and in writing, and the capacity to think clearly and analytically. Therefore, students anticipating careers in law, education, communications, and governmental affairs may find the history major especially beneficial. The versatility of the major makes it appropriate for students whose career decisions may be uncertain or indefinite. The major is also designed for transfer students intending upper-division study in history and related areas.

Students may major in American or European history. In either case, students should also complete history courses in areas outside their field of emphasis. The faculty of the School of Humanities recommends that history majors not select a history course to meet the humanities requirement for general education, but explore related subjects in the humanities that may be of interest to them.

## Program Student Learning Outcomes

Upon completion of the history program, students will be able to

- Identify multiple causes of events and historical processes, and will be able to describe and analyze historical contexts of events, ideas and/or social and cultural practices.
- Comprehend and criticize established scholarly methods in investigating and interpreting the past.
- Locate, interpret and analyze primary and secondary sources relevant to research questions.


## Potential Careers (For Non-Transfer Degree Recipients)


#### Abstract

The study of history is not designed simply to teach us interesting facts about the past or even to explain how our present world emerged from its murky origins in other times or places. It is a useful subject in ways that students may not always anticipate but employers often understand. Openness to research, awareness of the complexity of events, and appreciation for the diverse nature of cultural contexts are exactly what decision making in business, government, law, journalism, education, and other fields often requires. Consequently, history majors are well prepared for careers in:


- Archival and Cultural Resources Management
- Documentary Editing
- Education
- Historic Preservation
- History
- International Relations
- Market Analysis
- Museum Curatorship
- Politics
- Print and Broadcast Journalism
- Public Policy
- Research
- Social Ecology


## American History, AA

Complete the following courses:

- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units
- HIST 21 AMERICAN HISTORY SINCE THE CIVIL WAR 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units


## Complete one of the following courses:

- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 2 THE HISTORY OF WORLD CIVILIZATIONS SINCE 15003 Units
- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units


## Complete two of the following courses:

- HIST 24 AMERICA AFTER THE BOMB: 1945 TO THE PRESENT 3 Units
- HIST 33 THE HISTORY OF THE MEXICAN AMERICAN PEOPLE 3 Units
- HIST 51 WOMEN IN AMERICAN HISTORY 3 Units
- JRNL 40 MASS MEDIA AND SOCIETY 3 Units
- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units
- PS 1 AMERICAN GOVERNMENT 3 Units


## Total Units Required: 19

## Recommended Electives:

- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units
- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- PHIL 5 POLITICAL PHILOSOPHY 3 Units
- PHIL 10 ANCIENT PHILOSOPHY 3 Units
- PHIL 11 MODERN PHILOSOPHY 3 Units
- PS 1 AMERICAN GOVERNMENT 3 Units
- PS 14 INTERNATIONAL RELATIONS 3 Units
- RD 174 Critical Reading
- Any humanities course


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## European History, AA

Complete the following courses:

- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 2 THE HISTORY OF WORLD CIVILIZATIONS SINCE 15003 Units
- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units


## Complete one of the following courses:

- HUM 2 THE CULTURE OF ANCIENT GREECE AND ROME 3 Units
- HUM 3 THE CULTURE OF MEDIEVAL AND RENAISSANCE EUROPE 3 Units
- HUM 22 INTRODUCTION TO JUDAISM, CHRISTIANITY, AND ISLAM 3 Units
- PHIL 10 ANCIENT PHILOSOPHY 3 Units
- PHIL 11 MODERN PHILOSOPHY 3 Units


## Total Units Required: 19

## Recommended Electives:

- ARTH 25 ART HISTORY SURVEY I: WESTERN 3 Units
- ARTH 26 ART HISTORY SURVEY II: WESTERN 3 Units
- ARTH 29 19TH AND EARLY 20TH CENTURY ART 3 Units
- ARTH 30 RENAISSANCE AND BAROQUE ART 3 Units
- ARTH 31 MEDIEVAL ART 3 Units
- LIT 20 SURVEY OF BRITISH LITERATURE TO 17763 Units
- LIT 21 BRITISH LITERATURE FROM BLAKE TO THE PRESENT 3 Units
- LIT 40 INTRODUCTION TO THE HEBREW BIBLE (OLD TESTAMENT) 3 Units
- LIT 41 INTRODUCTION TO THE NEW TESTAMENT 3 Units
- LIT 43 INTRODUCTION TO SHAKESPEARE 3 Units
- LIT 46 INTERCULTURAL LITERATURE 3 Units
- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- PHIL 5 POLITICAL PHILOSOPHY 3 Units
- PS 4 INTRODUCTION TO POLITICAL SCIENCE 3 Units
- RD 174 Critical Reading
- any humanities course


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## History for Transfer, AA

## Complete the following courses:

- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
- HIST 2 THE HISTORY OF WORLD CIVILIZATIONS SINCE 15003 Units
- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units


## Complete one of the following courses:

- HIST 33 THE HISTORY OF THE MEXICAN AMERICAN PEOPLE 3 Units
- HIST 40 THE HISTORY OF EAST ASIA BEFORE 18003 Units
- HIST 41 THE HISTORY OF EAST ASIA SINCE 18003 Units
- HIST 51 WOMEN IN AMERICAN HISTORY 3 Units


## Complete one of the following courses:

- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- HIST 24 AMERICA AFTER THE BOMB: 1945 TO THE PRESENT 3 Units
- HIST 25 HISTORY OF CALIFORNIA 3 Units


## Total Units Required: 18

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Human Development

Dean: Traci Fahimi<br>Academic Chair: Donna King<br>Faculty: Donna King, Mary McDonough

## Courses

Courses in the human development program focus primarily on the development of the child from infancy through school age and explore programs and activities designed to promote children's overall growth and well-being. Students learn, both in theory and through direct observation, ways of meeting the emotional, physical, social, and cognitive needs of the young child. Courses in the program are relevant for those seeking training for employment in childcare facilities, as well as for parents and potential parents, recreation leaders, and elementary school teachers.

## Major

Students majoring in child development build a strong theoretical and practical background working with preschool-age children and their families. The program prepares students for immediate employment working as teachers or aides in childcare or other early childhood care-giving environments and provides a foundation of understanding and skills for those interested in careers providing services to children and families. Ample employment opportunities exist and salaries are increasing. Students may also prepare to transfer to four-year schools to pursue advanced degrees in child development with the eventual goal of becoming preschool directors, elementary school teachers, resource specialists, or consultants, or finding employment in related human service fields working with or in behalf of children.

## Program Student Learning Outcomes

Upon completion of the human development program, students will be able to

- Know and understand young children's characteristics and needs.
- Use developmental knowledge to create healthy, respectful, supportive, and challenging learning environments.
- Know and understand the multiple influences on development and learning.
- Know about and understand family and community characteristics.
- Support and engage families and communities through respectful, reciprocal relationships.
- Involve families and communities in their children's development and learning.
- Understand the goals, benefits, and uses of assessment.
- Know about and use observation, documentation, and other appropriate assessment tools and approaches.
- Understand and practice responsible assessment to promote positive outcomes for each child.
- Know about assessment partnerships with families and with professional colleagues.
- Understand positive relationships and supportive interactions as the foundation of their work with children.
- Know and understand effective strategies and tools for early education.
- Use a broad repertoire of developmentally appropriate teaching/learning approaches.
- Reflect on their own practice to promote positive outcomes or each child.


## Potential Careers

Examples of careers in child development include the following:

## With an associate degree or certificate of achievement-

- Associate Teacher in Early Childhood Education
- Master Teacher in Early Childhood Education
- Teacher in Early Childhood Education


## With a bachelor's or advanced degree-

- Consultant to Early Childhood Education Programs
- Parent Educator
- Site Supervisor/Director in Early Childhood Education
- Teen Parent Educator
- Workshop Facilitator


## Child Development, AS

## Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 101 OBSERVATION AND ASSESSMENT OF YOUNG CHILDREN 3 Units
- HD 110 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 160 ADVANCED CURRICULUM PLANNING 3 Units
- HD 181 PRACTICUM: EARLY CHILDHOOD PROGRAMS 3 Units
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 1 Unit


## Total Units Required: 30

## Recommended Electives:

- HLTH 1 HEALTH EDUCATION 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Child Development, COA

## Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 101 OBSERVATION AND ASSESSMENT OF YOUNG CHILDREN 3 Units
- HD 110 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 160 ADVANCED CURRICULUM PLANNING 3 Units
- HD 181 PRACTICUM: EARLY CHILDHOOD PROGRAMS 3 Units
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 1 Unit


## Total Units Required: 30

Recommended Electives:

- HLTH 1 HEALTH EDUCATION 3 Units
- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units


## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Early Childhood Assistant Teacher, COP

Completion of the Early Childhood Teacher Assistant certificate enables the student to meet basic Title 22 course requirements for preschool teaching. Title 22 licensing also requires work experience of a minimum of 50 days of 3 hours per day in an Early Childhood setting. This requirement may be met through a 3-unit HD 168: Human Development course.

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units

OR

- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units

OR

- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units


## Complete 6 units from the following courses:

- HD 110 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 Units
- HD 115 INTRODUCTION TO CURRICULUM 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units


## Total Units Required: 12

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Early Childhood Associate Teacher, COP

The Early Childhood Associate Teacher Certificate of Proficiency meets the academic requirements of the California Child Development Associate Teacher Permit, which enables teachers to work in state or federally funded programs. This permit also requires work experience of a minimum of 50 days of 3 hours per day in an Early Childhood setting. This requirement may be met through a 3-unit HD 168: Human Development course.

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units OR
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units OR
- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 110 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 Units
- HD 115 INTRODUCTION TO CURRICULUM 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units

Complete 2 units from the following courses:

- HD 231 CHILD MALTREATMENT: IDENTIFICATION AND TREATMENT 1 Unit
- HD 232 CHILDREN AND DIVORCE 1 Unit
- HD 250 TEACHING MATHEMATICS IN PLAY-BASED EARLY CHILDHOOD PROGRAMS 1 Unit
- HD 251 TEACHING SCIENCE IN A PLAY-BASED EARLY CHILDHOOD PROGRAM 1 Unit
- HD 252 TEACHING LITERACY IN A PLAY-BASED EARLY CHILDHOOD PROGRAM 1 Unit
- HD 253 DEALING WITH CHALLENGING CHILDREN 1 Unit


## Total Units Required: 17

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Early Childhood Education for Transfer, AS-T

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units or
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units or
- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 101 OBSERVATION AND ASSESSMENT OF YOUNG CHILDREN 3 Units
- HD 110 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN 3 Units
- HD 115 INTRODUCTION TO CURRICULUM 3 Units
- HD 130 TEACHING IN A DIVERSE SOCIETY 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units


## Total Units Required: 24

* HD 7/PSYC 7 and HD 15/SOC 15 are cross-listed courses. Area credit given in one area only.

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Elementary Teacher Education for Transfer, AA-T


#### Abstract

The intent of this degree is to prepare students for career in teaching, particularly elementary teacher education. The program is designed for students who are planning to transfer to a California State University as Liberal Studies or Child and Adolescent majors. Courses consist of the elementary subject matter competence requirements as established by the California Teacher Credentialing Commission and would prepare students to take the California Subject Examinations for Teachers (CSET) of Multiple Subjects.


## Required core:

- BIO 1 THE LIFE SCIENCES 3 Units
or
- BIO 1H THE LIFE SCIENCES HONORS 3 Units
and
- BIO 1L THE LIFE SCIENCES LABORATORY 1 Unit
- COMM 1 COMMUNICATION FUNDAMENTALS 3 Units
or
- COMM 1H COMMUNICATION FUNDAMENTALS HONORS 3 Units
- ERTH 20 INTRODUCTION TO EARTH SCIENCE 4 Units
- GEOG 3 WORLD REGIONAL GEOGRAPHY 3 Units
or
- GEOG 3H WORLD REGIONAL GEOGRAPHY HONORS 3 Units
- HIST 1 THE HISTORY OF WORLD CIVILIZATIONS TO 15003 Units
or
- HIST 1H THE HISTORY OF WORLD CIVILIZATIONS TO 1500 HONORS 3 Units
- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units
- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
or
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 10 INTRODUCTION TO ELEMENTARY TEACHING 3 Units
- LIT 1 INTRODUCTION TO LITERATURE 3 Units
- MATH 120 MATHEMATICS FOR ELEMENTARY TEACHERS
- PHYS 20 THE IDEAS AND EVENTS OF PHYSICS 4 Units
- PS 1 AMERICAN GOVERNMENT 3 Units
or
- PS 1H AMERICAN GOVERNMENT HONORS 3 Units
- WR 1 COLLEGE WRITING 14 Units
or
- WR 1H COLLEGE WRITING 1 HONORS 4 Units

List A (Select one course, 3-4 units):

- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units
- WR 2H COLLEGE WRITING 2: CRITICAL THINKING, WRITING HONORS 4 Units

List B (Select one course, 3 units):

- ARTH 20 ART APPRECIATION 3 Units
- MUS 20 MUSIC APPRECIATION 3 Units
or
- MUS 20H MUSIC APPRECIATION HONORS 3 Units
- TA 22 INTRODUCTION TO THEATER 3 Units

List C (Select two courses, 6 units):

- LIT 7 SURVEY OF CHILDREN'S LITERATURE 3 Units
- LIT 20 SURVEY OF BRITISH LITERATURE TO 17763 Units
- LIT 21 BRITISH LITERATURE FROM BLAKE TO THE PRESENT 3 Units
- LIT 22 AMERICAN LITERATURE TO TWAIN 3 Units
- LIT 23 AMERICAN LITERATURE: TWAIN TO THE PRESENT 3 Units

Total Units Required: 54-56
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Infant/Toddler, AS

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 104 Infant and Toddler Development
- HD 105 INFANT-TODDLER PROGRAMS 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 3 Units


## Total Units Required: 27

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## Infant/Toddler, COA

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 104 Infant and Toddler Development
- HD 105 INFANT-TODDLER PROGRAMS 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 3 Units


## Total Units Required: 27

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## School-Age Child, AS

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 266 PROGRAM PLANNING FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 267 STAFF DEVELOPMENT TOPICS FOR SCHOOL-AGE PROGRAMS 1 Unit
- HD 268 GUIDANCE AND DISCIPLINE FOR SCHOOL-AGE CHILDCARE 1 Unit
- HD 269 HOLIDAY AND SUMMER PROGRAMS FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 270 ART, MUSIC, AND DRAMA FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 271 RECREATION, SPORTS AND FITNESS FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 3 Units


## Total Units Required: 27

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## School-Age Child, COA

Complete the following courses:

- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- HD 120 CHILD GUIDANCE AND DISCIPLINE 3 Units
- HD 131 CREATIVE DEVELOPMENT IN YOUNG CHILDREN 3 Units
- HD 145 LANGUAGE AND LITERACY FOUNDATIONS 3 Units
- HD 150 HEALTH, SAFETY AND NUTRITION OF CHILDREN 3 Units
- HD 266 PROGRAM PLANNING FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 267 STAFF DEVELOPMENT TOPICS FOR SCHOOL-AGE PROGRAMS 1 Unit
- HD 268 GUIDANCE AND DISCIPLINE FOR SCHOOL-AGE CHILDCARE 1 Unit
- HD 269 HOLIDAY AND SUMMER PROGRAMS FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 270 ART, MUSIC, AND DRAMA FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 271 RECREATION, SPORTS AND FITNESS FOR SCHOOL-AGE CHILDREN 1 Unit
- HD 168 COOPERATIVE WORK EXPERIENCE: HUMAN DEVELOPMENT 3 Units


## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Humanities

Interim Dean: Brooke Bui, PhD
Academic Chair: Jamie Poster, PhD
Faculty: Stephen Felder, PhD; Jamie Poster, PhD

## Courses

The humanities curriculum integrates the study of history, literature, philosophy, and the arts in an effort to address the fundamental questions of cultural meaning and value common to humanistic fields and methods. Courses are offered in selected major themes or issues that frequently cut across traditional cultural or historical boundaries. The curriculum emphasizes the close study of a variety of cultural texts, artifacts, and events in order to explore not only traditional assertions regarding the values of culture but also the criticism of those assertions, in a historical as well as contemporary light. Courses offered in the curriculum meet general education and transfer requirements in humanities and may be applied to a major in humanities for an Associate in Arts degree.

## Major

The humanities major allows students generally interested in literature, history, philosophy, film studies, and art history and criticism to elect a general rather than specific emphasis to their degree. The major offers much diversity in terms of choices, and thus provides the opportunity for students to tailor the degree to meet their own interests and concerns. Humanities majors learn in particular how to read and write critically and how to synthesize complex ideas from a variety of sources, often diverse in kind and in time.

The major is appropriate for students interested in a "general studies" degree at the lower-division level; its focus on the close study and criticism of culture makes the major applicable for students seeking careers in law, education, government, public affairs, journalism, and writing. The humanities major is also an excellent choice for students whose educational intentions are uncertain or undecided, or for students intending to pursue an upper-division education in literature, history, philosophy, or study of the arts.

Students majoring in the humanities should complete both Writing 1 and Writing 2 in fulfillment of the language and rationality requirements within the general education package. The department recommends that humanities majors do not select a humanities course to meet the humanities requirement for general education, but explore related subjects in the humanities that may be of interest to them.

## Program Student Learning Outcomes

Upon completion of the humanities program, students will be able to

- Identify, analyze, and evaluate the epistemological assertions, metaphysical assumptions, and shared understandings that undergird particular cultural understandings as reflected in works of literature, art, architecture, and philosophy.
- Demonstrate the ability to apply a given theoretical model to a representative text of cultural significance.
- Demonstrate willingness and ability to analyze ideas, historical events, and cultural texts from diverse origins.
- Demonstrate the ability to construct a critical argument synthesizing multiple perspectives or points of view.


## Potential Careers

Humanities majors are well prepared for careers that require the application of strong interpretive skills. Examples include the following:

- Advertising
- Education
- Film
- International Relations
- History
- Law
- Law Enforcement
- Politics
- Public Relations
- Public Policy
- Publishing
- Radio
- Religion
- Television
- Writing

Furthermore, humanities majors may be attractive to employers seeking individuals who understand the complexities and diversities of human culture and can communicate cross-culturally.

## Humanities, AA

## Complete the following courses:

- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units
- HUM 1 INTRODUCTION TO HUMANITIES 3 Units
- HUM 2 THE CULTURE OF ANCIENT GREECE AND ROME 3 Units
- HUM 3 THE CULTURE OF MEDIEVAL AND RENAISSANCE EUROPE 3 Units
- HUM 4 THE CULTURE OF THE MODERN WORLD: 1700 TO THE PRESENT 3 Units
- HUM 50 MYTHOLOGY 3 Units


## Total Units Required: 19

## Recommended Electives:

Any course in literature, philosophy, history, or history and criticism of the arts
To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Interactive Media Arts

Dean: Joseph Poshek
Academic Chair, Visual Arts: Julie Kirk
Faculty: Patricia Beckman-Wells, EdD

## Courses

The Interactive Media Arts curriculum is predominately project based, and includes courses in 3D/2D Animation, Game Design, Character Design and Layout, 3D Modeling and Printing, Interactive Toy Design, Visual Programming, and Story as they pertain to emerging technologies. Project based learning expands critical thinking skills. These CSU and UC transferable studio-based art courses are intended to prepare students for industry, as well as provide a foundational understanding of the aesthetic and technical aspects of emerging technologies. Students interested in Interactive Media Arts are strongly encouraged to also take foundation art courses in traditional drawing, sculpting, and painting.

## Majors

Interactive Media Arts strives to pull user interactions from within the computer out into the physical world. This studio-based curriculum appeals to interests in the emerging technologies of game design, microcontrollers, 3D printing, virtual reality, webgl, augmented reality, and traditional animated film and visual effects. Certificates concentrate on pipeline production positions of employment, so that the student may concentrate on skill-driven academic success that is pertinent to the local job market, and provide the student with a targeted focus when transferring to a four year college or university. The student may take as many tracks as they are interested in, as all provide the student with a more well-rounded understanding of emerging technologies and an expanded, original creative portfolio.

The current Interactive Media Arts certificate program includes three one-year certificates of proficiency in 3D Animation, 2D Animation, and Game Design. These certificates are intended to produce relevant hires for the games, emerging technology, and entertainment industries. Each certificate culminates into a portfolio course sponsored by industry. In this course, students create a team project under the practice of Agile Management theory, a production technique used in team-centered arts production. Example projects in this course include: a short animated film, a virtual reality experience, or an external microcontroller driven interactive display like those seen at theme parks. The final portfolio project is driven by the skills sets and interests of the students attending.

## Program Student Learning Outcomes

Upon completion of the Interactive Media Arts program, students will be able to

- Apply an interactive media art workflow including research, project development, relevant production work methods, adherence to a production schedule, and final output considerations.
- Produce a professional Interactive Media Arts Portfolio, to include one team-driven product.
- Demonstrate a technical proficiency of industry-standard interactive media art software to create professional emerging technology products.
- Analyze and integrate the fundamentals of Interactive Media Art with art theory and aesthetics.
- Participate in class critiques of student projects and demonstrate a comprehension of the vocabulary and language of interactive media arts.
- Demonstrate a commitment to on-time delivery of projects in adherence to deadlines.


## Potential Careers

Examples of careers in interactive media arts and emerging technology:

- Animator for games, film, virtual reality, webgl, and all emerging media.
- 3D Modeler for games, film, virtual reality, webgl, and all emerging media.
- Game designer for games, film, virtual reality, webgl, and all emerging media.
- Pre-visualization artist for games, film, virtual reality, webgl, and all emerging media.
- 3D Asset Manager for games, film, virtual reality, webgl, and all emerging media.
- Interactive display designer for theme parks and all emerging technologies.
- Producer for games, film, virtual reality, webgl, and all emerging media.


## Immersive Design - 2D Animation, COP

This certificate is intended to produce relevant hires for the immersive design industries prevalent in Irvine. Immersive Design 2D Animation narrows focus to digital hand drawn 2D movement, layout and interface design prepared in an industry standard software, as well as story, character, and the 12 Principles of Animation as it relates to manipulating 2D motion assets. Students who complete this certificate will produce a demo reel of 2D motion studies, layout and interface design prepared for immersive media, and a 2D drawing portfolio that demonstrates visual storytelling and communication skills. Students will graduate with a group project wherein 'Agile' production skills are practice and mastered in a team production environment driven by self-defined goals, production documentation, and final project deadlines. Occupations in Immersive Design are highly competitive and require dedication to mastering professional skills beyond mere classroom immersion. Students are encouraged to create assignments outside of class, pursue advanced material online, continue with foundation drawing courses, and participate in team projects on a continual basis in order to obtain a competitive edge.

## Complete the following courses:

- ART 85 LIFE DRAWING I 3 Units
- IMA 20 WRITING AND STORYBOARDING FOR GAMES 3 Units
- IMA 96 2D ANIMATION PRINCIPLES 3 Units
- IMA 193 PORTFOLIO DEVELOPMENT - 2D MOTION 2.5 Units


## Total Units Required: 14.5

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Immersive Design - 3D Animation, COP


#### Abstract

This certificate is intended to produce relevant hires for the immersive design industries prevalent in Irvine. Immersive Design 3D Motion requires focus on imagined, captured, and emphasized movement prepared in an industry standard software, as well as story, character, and the 12 Principles of Animation as it relates to manipulating captured motion. Students who complete this certificate will produce a demo reel of imaged, captured, and emphasized 3D motion prepared for immersive media that demonstrates a proficiency of manipulating motion data, as well as basic model rigging, and a 2 D drawing portfolio that demonstrates visual communication skills. Students will graduate with a group project wherein 'Agile' production skills are practiced and mastered in a team production environment driven by self-defined goals, production documentation, and final project deadlines. Occupations in Immersive Design are highly competitive and require dedication to mastering professional skills beyond mere classroom immersion. Students are encouraged to create assignments outside of class, pursue advanced material online, continue with foundation drawing courses, and participate in team projects on a continual basis in order to obtain a competitive edge.


## Complete the following courses:

- IMA 20 WRITING AND STORYBOARDING FOR GAMES 3 Units
- IMA 30 3D ANIMATION 3 Units
- IMA 88 3D CHARACTER ANIMATION II 3 Units
- IMA 89 RIGGING FOR 3D ANIMATION 3 Units
- IMA 192 PORTFOLIO DEVELOPMENT - 3D ANIMATION 2.5 Units


## Total Units Required: 17.5

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Immersive Design - Game Design, COP

This certificate is intended to produce relevant hires for the game and internet industries. Game Design requires focus on the application and development of game fundamentals, story, character, industry relevant software, and development of the playcentric experience playtesting. Students who complete this certificate will produce a demo reel of interactive games created in an industry standard software, level designs and board games that demonstrate a proficiency of the playcentric process, interactive projects utilizing visual scripting, a portfolio of short storyboard constructions demonstrating creative writing skills, a 3D print demonstrating an understanding of the prototyping process, and a 2 D drawing portfolio. Students will participate in a final group class wherein they will construct a team project in their discipline. The project will be mentored by industry and provide a valuable addition to the portfolio.

## Complete the following courses:

- IMA 20 WRITING AND STORYBOARDING FOR GAMES 3 Units
- IMA 22 VISUAL SCRIPTING FROM GAMES 3 Units
- IMA 40 INTRODUCTION TO GAME DESIGN 3 Units
- IMA 98 3D MODELING FOR GAMES AND FILM 3 Units
- IMA 99 GAME DESIGN II 3 Units
- IMA 191 PORTFOLIO DEVELOPMENT - GAME LEVEL DESIGN 2.5 Units


## Total Units Required: 17.5

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

# Kinesiology, Health and Athletics 

Dean: Keith Shackleford, JD<br>Academic Co-Chairs: Jerry Hernandez and Tom Pestolesi<br>Faculty: Simon Davies, PhD; Julie Hanks; Jerry Hernandez; Kent Madole; Martin McGrogan; Tom Pestolesi; Jovan Stojanovski; Ted Weatherford

## Courses

The School of Kinesiology, Health and Athletics (KHA) offers programs designed for students interested in transfer, degree and career opportunities in these disciplines. Students are introduced to topics related to exercise science, such as the physiology and anatomy of the body, nutrition, injury prevention, health enhancement, fitness and exercise. The program serves all students, regardless of age, fitness level, or previous experience.

Classes are offered in both the lecture and activity settings. Lecture courses are designed to provide a basis for the future professional and lifelong learner, with concepts and ideas easily applicable to the university, graduate school, and lifestyle experiences. Activity courses mirror this philosophy while putting these same concepts into motion. Cardiovascular fitness, strength training, individual/paired sports, team sports, intramurals, and intercollegiate athletics are offered in each term to permit the practice of the theoretical knowledge gained in the classroom. The school also provides special services courses for physically challenged individuals seeking corrective and rehabilitative exercise. All activity classes are designed not only to provide for physiological development but also to educate students about the principals involved in that process and to introduce them to the related topics of nutrition, injury prevention, and health enhancement.

The School of KHA's complex includes baseball and soccer fields, lighted outdoor tennis courts, sand volleyball courts, and outdoor basketball courts. Hart Gymnasium serves as the home court for the Lasers basketball, badminton, and volleyball teams. The PE 200 building also houses a strength training center, dance studio, and the KNES classroom. The PE 100 building includes the Life Fitness Center (LFC), a dance studio, and locker rooms. Students may use the LFC by enrolling in KNES 3A/KNES 3B/KNES 3C and completing the required orientation session.

## Major

Students intending to transfer to a four-year institution with a major in kinesiology, or with an intent to pursue study in recreation or leisure studies, should consult with a faculty member in the School of Kinesiology, Health and Athletics.

The AA in Kinesiology for Transfer is the traditional degree pathway for those interested in a career encompassing studies in this discipline. Steeped in a broad array of topics such as anatomy, physiology, biology and the baseline courses of kinesiology, this degree is for the student with designs on a university experience in Kinesiology, and/or graduate school options that include medical school, physical therapy, sports medicine, rehabilitation, research and teaching.

Those seeking employment in an industrial fitness/club fitness setting are advised to explore the fitness professional certificate program. This one-year program is designed to qualify students to serve as personal trainers, aerobics instructors, and/or strengthtraining instructors. Those who pursue this program will be educated in the principles of exercise science that apply to fitness evaluation, exercise recommendation, and application of appropriate exercise methods.

## Program Student Learning Outcomes

## Kinesiology

Upon completion of the kinesiology program, students will be able to

- Demonstrate a beginning level of knowledge and skill in at least one sport or physical activity.
- Explain and apply basic physiological principles of human movement in exercise and sports settings.
- Demonstrate an understanding of the structure and function of the body in human performance.
- Recognize the principles of physical fitness development and maintenance as well as the body's responses to physical activity.
- Acquire an understanding of those factors instrumental in the development and performance of motor skills.
- Demonstrate an understanding of the value and significance of physical activity for human development, human interactions, and quality of life.
- Use campus and/or community resources to participate actively in their own education.
- Display leadership, cooperation and sportsmanship through active participation in sports.
- Encourage and promote a high quality of life through sport, fitness and physical activity.
- Encourage and appreciate the value of lifelong fitness with an emphasis in activities that support a healthy lifestyle.


## Fitness Professional

Upon completion of the fitness professional program, students will be able to

- Assist clients, students, or participants in assessing their level of physical fitness, and setting and reaching fitness or physical activity goals
- Organize and direct appropriate exercise or recreational activities, including instruction in fitness techniques, aerobic exercise, dance, games, sports
- Retain appropriate records of client/student progress, equipment use, and scheduled activities.


## Potential Careers (For Non-Transfer Degree Recipients)

Examples of careers for the kinesiology, health and athletics student include the following:

- Athletic Trainer
- Coach
- Commercial Recreation
- Dietician/Nutrition Specialist
- Exercise Physiologist
- Fitness/Physical Education Instructor
- Occupational Therapist
- Personal Trainer
- Positions in the Leisure, Wellness and Health Industries
- Recreation Leader
- Referee
- Rehabilitation Specialist
- Sports Marketing
- Sports Medicine
- Sports Scout
- Strength-Conditioning Coach


## Coaching, COP

Complete the following courses:

- KNES 85 INTRODUCTION TO ATHLETIC TRAINING 3 Units
- KNES 86 THEORY OF COACHING 3 Units

Choose one unit from the following courses:

Strength and Fitness Training

- KNES 4 WEIGHT TRAINING I 0.5 Unit
- KNES 4 WEIGHT TRAINING I 1 Unit
- KNES 5 WEIGHT TRAINING II 0.5 Unit
- KNES 5 WEIGHT TRAINING II 1 Unit
- KNES 6 WEIGHT TRAINING III 0.5 Unit
- KNES 6 WEIGHT TRAINING III 1 Unit

Choose two units from the following:

Individual or Team Sports

- KNES 11 BADMINTON I 0.5 Unit OR
- KNES 11 BADMINTON I 1 Unit
- KNES 12 BADMINTON II 0.5 Unit OR
- KNES 12 BADMINTON II 1 Unit
- KNES 20 BEGINNING GOLF 0.5 Unit OR
- KNES 20 BEGINNING GOLF 1 Unit
- KNES 22 INTERMEDIATE GOLF 0.5 Unit OR
- KNES 22 INTERMEDIATE GOLF 1 Unit
- KNES 23 ADVANCED GOLF 1 Unit
- KNES 32 INTRAMURAL ACTIVITIES 0.5 Unit OR
- KNES 32 INTRAMURAL ACTIVITIES 1 Unit
- KNES 71 SOCCER I 1 Unit
- KNES 72 SOCCER II 1 Unit
- KNES 73 SOCCER III 1 Unit
- KNES 74 SOCCER IV 0.5 Unit

OR

- KNES 74 SOCCER IV 1 Unit
- KNES 76 VOLLEYBALL I 0.5 Unit OR
- KNES 76 VOLLEYBALL I 1 Unit
- KNES 77 VOLLEYBALL II 0.5 Unit OR
- KNES 77 VOLLEYBALL II 1 Unit
- KNES 78 VOLLEYBALL III 0.5 Unit

OR

- KNES 78 VOLLEYBALL III 1 Unit


## First Aid

Health 2 may be waived by the Department Chair with proof of current American Heart Association and/or American Red Cross certification in both First Aid and CPR training:

- HLTH 2 FIRST AID: RESPONDING TO EMERGENCIES 3 Units


## Total Units Required: 15

## Fitness Professional, COA

This one-year program is designed to qualify students to serve as personal trainers, aerobics instructors, and/or strength-training instructors. Those who pursue this program will be educated in the principles of exercise science that apply to fitness evaluation, exercise recommendation, and application of appropriate exercise methods. This program was revised for the August 2017 edition of the IVC catalog. Please consult a counselor if you have any questions.

## Complete the following courses:

- KNES 103 MOVEMENT ANATOMY 3 Units
- KNES 104 EXERCISE PHYSIOLOGY 3 Units
- KNES 105 PRINCIPLES OF STRENGTH AND CONDITIONING 3 Units
- KNES 106 EXERCISE TESTING AND PRESCRIPTION 3 Units
- KNES 215 FITNESS PROFESSIONAL INTERNSHIP 3 Units
- NUT 2 SPORT NUTRITION 3 Units


## Total Units Required: 18

## Recommended Electives:

- KNES 85 INTRODUCTION TO ATHLETIC TRAINING 3 Units
- KNES 86 THEORY OF COACHING 3 Units
- KNES 100 INTRODUCTION TO THERAPY AND CAREER EXPLORATION OF REHABILITATION 3 Units

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Note:

Students are advised to consult with faculty or a counselor to clarify graduation requirements, and/or for course substitution if a course is not available.

## Kinesiology for Transfer, AA-T

Complete the following courses:

- BIO 11 HUMAN ANATOMY 4 Units
- BIO 12 HUMAN PHYSIOLOGY 4 Units
- KNES 102 Introduction to Physical Education, Fitness and Sport


## Complete a maximum of 3 units from the following courses

with at least one course taken from three different areas (Dance, Fitness, Individual Sports, Team Sports):

Dance

- DNCE 1 INTRODUCTION TO DANCE 2 Units
- DNCE 6 BALLET I 2 Units
- DNCE 7 BALLET II 2 Units
- DNCE 12 MODERN DANCE I 2 Units
- DNCE 13 MODERN DANCE II 2 Units
- DNCE 17 JAZZ DANCE I - OVERVIEW 2 Units
- DNCE 17A Jazz Dance 1A
- DNCE 17B Jazz Dance IB
- DNCE 18 JAZZ DANCE II 2 Units
- DNCE 18A Jazz Dance 1A
- DNCE 18B Jazz Dance IB
- DNCE 22 TAP DANCE I 1 Unit
- DNCE 23 TAP DANCE II 1 Unit
- DNCE 27 HIP HOP/COMMERCIAL DANCE 1 Unit
- DNCE 33 MIDDLE EASTERN DANCE I 1 Unit
- DNCE 34 MIDDLE EASTERN DANCE II 1 Unit
- DNCE 36 BALLROOM STYLES OF THE 19TH AND 20TH CENTURY 1 Unit
- DNCE 46 INTRODUCTION TO YOGA 2 Units
- DNCE 47 RAJA YOGA-HATHA YOGA 2 Units
- DNCE 51 PILATES 2 Units
- DNCE 51A PILATES A 1 Unit
- DNCE 51B PILATES B 1 Unit


## Fitness

- KNES 3A LIFE FITNESS CENTER I 1 Unit
- KNES 3B LIFE FITNESS CENTER II 1.5 Units
- KNES 3C LIFE FITNESS CENTER III 2 Units
- KNES 4 WEIGHT TRAINING I 1 Unit
- KNES 5 WEIGHT TRAINING II 1 Unit


## Individual Sports

- IA 6 Intercollegiate Men's Golf
- IA 7 Intercollegiate Women's Golf
- IA 9 Intercollegiate Men's Tennis
- IA 13 Intercollegiate Women's Tennis
- KNES 11 BADMINTON I 1 Unit
- KNES 12 BADMINTON II 1 Unit
- KNES 20 BEGINNING GOLF 0.5 Unit
- KNES 22 INTERMEDIATE GOLF 0.5 Unit OR
- KNES 22 INTERMEDIATE GOLF 1 Unit
- KNES 23 ADVANCED GOLF 1 Unit
- KNES 25 TENNIS I 1 Unit
- KNES 26 TENNIS II 1 Unit

Team Sports

- IA 2 Intercollegiate Men's Basketball
- IA 3 Intercollegiate Men's Baseball
- IA 10 Intercollegiate Women's Volleyball
- IA 12 Intercollegiate Women's Basketball
- IA 15 Intercollegiate Men's Soccer
- IA 18 Intercollegiate Women's Soccer
- IA 19 Intercollegiate Men's Volleyball
- KNES 63 BASKETBALL III 0.5 Unit OR
- KNES 63 BASKETBALL III 1 Unit
- KNES 73 SOCCER III 1 Unit
- KNES 76 VOLLEYBALL I 0.5 Unit OR
- KNES 76 VOLLEYBALL I 1 Unit
- KNES 77 VOLLEYBALL II 0.5 Unit OR
- KNES 77 VOLLEYBALL II 1 Unit
- KNES 78 VOLLEYBALL III 0.5 Unit OR
- KNES 78 VOLLEYBALL III 1 Unit
- KNES 83 BASEBALL III 1 Unit

Complete two (6-9 units) from the following courses:

- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units OR
- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- BIO 1 THE LIFE SCIENCES 3 Units AND
- BIO 1L THE LIFE SCIENCES LABORATORY 1 Unit
- CHEM 1A GENERAL CHEMISTRY I 5 Units OR
- CHEM 4 INTRODUCTION TO GENERAL \& ORGANIC CHEMISTRY \& BIOCHEMISTRY 5 Units
- PHYS 2A INTRODUCTION TO PHYSICS 4 Units OR
- PHYS 4A GENERAL PHYSICS 4 Units
- HLTH 2 FIRST AID: RESPONDING TO EMERGENCIES 3 Units

Total Units Required: 20-23
To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Languages

Interim Dean: Brooke Bui, PhD
Academic Chair: Jeanne Egasse, Beatrice Tseng
Faculty: Joanne Chen; Jeanne Egasse; Keith Gamache; Fumiko Ishii; Emiko Kiyochi; Anca Popescu, PhD; Beatrice Tseng

## Courses

The department offers courses from beginning through intermediate level courses in French, Chinese, Japanese, and Spanish. In addition, the department offers courses in American Sign Language at all levels for those wishing to develop receptive and expressive skills for communicating with the hearing impaired. All courses are designed to develop the student's listening comprehension, speaking, reading, and writing skills, as well as to provide a general overview of civilization and culture. Curriculum in all languages includes lower-division courses that are fully transferable to a four-year college or university.

## Major

Students who major in a foreign language at the lower-division level concentrate on learning to understand, speak, read, and write a foreign language. In the process, students develop a more profound understanding of the world and gain insights into its complexities-culturally, politically, economically, and socially. Of course, as our world grows increasingly interdependent and international travel readily accessible, the knowledge of a foreign language will prove of benefit to all.

Students at Irvine Valley College may choose to major in Chinese, French, Japanese or Spanish. The faculty recommends that majors do not select a language course to meet the arts and languages general education requirement, but instead choose a course in one of the arts that is of interest to them.

## Program Student Learning Outcomes

## American Sign Language

Upon completion of the American Sign Language program, students will be able to

- Identify and use ASL manual alphabet.
- Analyze and interpret meaning of narrative passage in ASL based on the topics in the course outline of record.
- Compose and perform a narrative using conceptually accurate ASL.


## Chinese

Upon completion of the Chinese program, students will be able to

- Listen and comprehend a passage in the target language in a variety of contexts and formats.
- Write clearly and accurately in a variety of contexts and formats in the target language.
- Read and comprehend a passage in the target language from a variety of contexts and formats.
- Speak clearly and accurately in both formal and informal settings in the target language.
- Demonstrate awareness of cultural conventions.


## French

Upon completion of the French program, students will be able to

- Interpret a passage of native spoken French in a variety of contexts and formats.
- Read and interpret written material in French of at least six paragraphs.
- Write a four-paragraph essay in French, clearly and accurately, in a variety of contexts and formats.


## Japanese

Upon completion of the Japanese program, students will be able to

- Communicate with native speakers of Japanese using appropriate language, styles, sensitivity and level of respectfulness for various situations.
- Read and write Japanese symbols clearly and accurately in a variety of contexts and formats.
- Demonstrate knowledge of Japanese society, culture and history, and will be able to analyze and discuss cultural differences and similarities.


## Spanish

Upon completion of the Spanish program, students will be able to

- Interpret native spoken Spanish in a variety of contexts and formats.
- Use grammar effectively to communicate with native speakers.
- Read and interpret written material of at least six paragraphs in length.
- Write a clear and accurate four-paragraph essay in Spanish, in a variety of contexts.


## Potential Careers

In the past, many students who majored in foreign languages chose a teaching career. This continues to be an excellent option, given the shortage of well-qualified teachers, especially in the areas of bilingual and bicultural education. In an increasingly economically interdependent environment, however, market globalization has opened up many new and exciting opportunities for foreign language majors in areas such as the following:

- Communications
- Foreign Service
- International Affairs
- International Business and Banking
- International Studies
- Journalism
- Marketing and Sales
- Publishing and Editing
- Social Work
- Translation and Interpretation
- Transportation and Travel

In combination with other areas of study, the foreign languages major provides a very strong preparation for professional schools such as business, law, and diplomacy.

## French, AA

## Complete the following courses:

- FR 1 BEGINNING FRENCH I 5 Units †

OR

- FR 1H BEGINNING FRENCH I HONORS 5 Units $\dagger$
- FR 2 BEGINNING FRENCH II 5 Units
- FR 3 INTERMEDIATE FRENCH 5 Units
- FR 4 INTERMEDIATE FRENCH 5 Units
- FR 10 INTERMEDIATE CONVERSATIONAL FRENCH 3 Units
- FR 11 ADVANCED CONVERSATIONAL FRENCH 3 Units


## Total Units Required: 26

$\dagger$ Students who have completed equivalent courses or who have acquired fluency may substitute a second foreign language or may begin with FR 2 or FR 3.

## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Japanese, AA

Complete the following courses:

- JA 1 BEGINNING JAPANESE I 5 Units †

OR

- JA 1H BEGINNING JAPANESE I HONORS 5 Units †
- JA 2 BEGINNING JAPANESE II 5 Units
- JA 3 INTERMEDIATE JAPANESE I 5 Units
- JA 4 INTERMEDIATE JAPANESE II 5 Units
- JA 10 INTERMEDIATE CONVERSATIONAL JAPANESE 3 Units


## Total Units Required: 23

[^1]
## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Spanish for Transfer, AA-T

The ability to understand, speak, read and write in another language is increasingly important as global interaction expands. The Spanish curriculum includes courses appropriate for a general liberal arts education and for the major in Spanish.

Completion of Spanish courses will assist students in meeting their career, transfer and life-long learning goals and prepare them to interact with Spanish-speaking communities. Additionally, students who complete the Spanish program will gain valuable insights into the process of language learning, empowering them to pursue future language study. The study of Spanish is relevant to student's lives today and provides them with skills needed to communicate effectively as global citizens. Extracurricular cultural events enhance student understanding of language and culture.

Upon completion of the Spanish Program, students will be able to interpret native spoken Spanish in a variety of contexts and formats and use grammar effectively to communicate with native speakers. In addition, students will also be able to read and interpret written material of at least six paragraphs in length and write a clear and accurate, four-paragraph essay in Spanish, in a variety of contexts.

The Associate in Arts in Spanish for Transfer is to assist students in the seamless transferring to a CSU (California State University).

## Complete the following courses:

- SPAN 1 BEGINNING SPANISH I 5 Units or
- SPAN 1H BEGINNING SPANISH I HONORS 5 Units
- SPAN 2 BEGINNING SPANISH II 5 Units
- SPAN 3 INTERMEDIATE SPANISH I 5 Units
- SPAN 4 INTERMEDIATE SPANISH II 5 Units


## Complete one of the following courses:

- SPAN 10 INTERMEDIATE CONVERSATIONAL SPANISH 3 Units
- SPAN 11 ADVANCED CONVERSATIONAL SPANISH 3 Units
- FR 1 BEGINNING FRENCH I 5 Units
or
- FR 1H BEGINNING FRENCH I HONORS 5 Units
- FR 2 BEGINNING FRENCH II 5 Units
- FR 3 INTERMEDIATE FRENCH 5 Units
- FR 4 INTERMEDIATE FRENCH 5 Units


## Total Units Required: 23

## Note:

Students who have completed equivalent courses or who have acquired fluency may substitute a second foreign language.

## To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Spanish, AA

The ability to understand, speak, read and write in another language is increasingly important as global interaction expands. The Spanish curriculum includes courses appropriate for a general liberal arts education and for the major in Spanish.

Completion of Spanish courses will assist students in meeting their career, transfer and life-long learning goals and prepare them to interact with Spanish-speaking communities. Additionally, students who complete the Spanish program will gain valuable insights into the process of language learning, empowering them to pursue future language study. The study of Spanish is relevant to student's lives today and provides them with skills needed to communicate effectively as global citizens. Extracurricular cultural events enhance student understanding of language and culture.

Upon completion of the Spanish Program, students will be able to interpret native spoken Spanish in a variety of contexts and formats and use grammar effectively to communicate with native speakers. In addition, students will also be able to read and interpret written material of at least six paragraphs in length and write a clear and accurate, four-paragraph essay in Spanish, in a variety of contexts.

## Complete the following courses:

- SPAN 1 BEGINNING SPANISH I 5 Units

OR

- SPAN 1H BEGINNING SPANISH I HONORS 5 Units
- SPAN 2 BEGINNING SPANISH II 5 Units
- SPAN 3 INTERMEDIATE SPANISH I 5 Units
- SPAN 4 INTERMEDIATE SPANISH II 5 Units


## Complete one of the following courses:

- SPAN 10 INTERMEDIATE CONVERSATIONAL SPANISH 3 Units
- SPAN 11 ADVANCED CONVERSATIONAL SPANISH 3 Units


## Total Units Required: 23

Students who have completed equivalent courses or who have acquired fluency may substitute a second foreign language.

## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Laser Technology

Interim Dean: Lianna Zhao, MD
Academic Chair: Matt Wolken

## Major

Nearly all modern devices interact with light. Photonics technology covers the creation and application of devices that use light. Such devices are ubiquitous in modern society, so students will be taught how these components and systems are fabricated and tested. These hands-on courses have a strong emphasis on laboratories, demonstrations, and real-world examples. Industrialgrade equipment is part of every class. These courses are taught using curricula developed by the National Science Foundation. They are based on direct industry feedback on the skill sets most in demand. Opportunities to network and earn internships with IVC's network of local industrial partners will be provided as part of this curriculum via company presentations, tours, and field trips. Students will gain the applied skills necessary to immediately become a valuable technician in industry. These skills will help students succeed in a four-year engineering program and they will help to expedite graduate school lab work. Employed professionals will have opportunity to learn the skills necessary to advance their careers and master more technically demanding job duties.

## Program Student Learning Outcomes

Upon completion of a laser technology certificate, students will be able to

- Assemble, align, and operate a laser system safely, per industrial ANSI Z136 standards.
- Select and configure a suitable optical source for an illumination application.
- Connect the circuitry required to operate an optical detector
- Understand the differences in application among various optical display technologies.
- Characterize the imaging performance of a camera system.
- Test the quality of optical components, including lenses, mirrors, prisms, windows, and diffraction gratings.
- Understand the processes and tests required to turn raw materials into precision optics.
- Read and write technical drawings of precision optics per ISO 10110 standards.


## Potential Careers

Examples of the industry segments hiring photonics technicians include the following:

- Laser System Technology
- Remote Sensing
- Optical Manufacturing (glass, semiconductors, plastics)
- Electronics Technology
- Semiconductor Technology
- Medical Equipment
- Chemical and Forensics Analysis
- Military, Defense, and Aerospace Technology
- Robotics, Automation, and Unmanned Aerial Vehicles (UAVs)
- Telecommunications
- Illumination
- Automotive
- Telescopes and Astronomy
- Scientific Technical Services


## Laser Technology: Optoelectronics, COP

An employee with skills in optoelectronics is capable of working in the fields of semiconductor electronics, where computer circuity and chips are made. In addition, camera and sensor technology relies heavily on optoelectronic devices to detect light optical source technology markets use optoelectronic components in the making of laser diode and light-emitting diode (LED) sources.

## Complete the following courses:

- ET 99 DIGITAL ELECTRONIC CIRCUITS 4 Units
- ET 92 BASIC ELECTRIC CIRCUITS I 4 Units


## Total Units Required: 14

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Laser Technology: Photonics, COP

Completing the requirements for this Certificate of Proficiency will prepare students with the first, basic skills needed to gain employment in photonics technology. Based in hands-on laboratories and demonstrations, this Certificate emphasizes realworld technology. Students will work with local industry toward employment designing, testing and servicing photonic systems with diverse applications including remote sensing, manufacturing, defense, telecommunications, aerospace, medicine and entertainment.

## Complete the following courses:

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Laser Technology: Precision Optics, COP

Precision manufacturing is a multifaceted field that covers fields from material science to high-resolution measurement. Precision optics are found in nearly all modern devices. An employee with skills in precision optic manufacturing will be involved with the production and testing of high-quality camera lenses, telescope mirrors, optical fibers, lithography stepper lenses, optical displays and laser crystals.

Complete the following courses:
Total Units Required: 13
To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Photonics Technology, COA

The IVC Photonics Technology Certificate of Achievement will teach students the hands-on skills necessary to thrive in corporate labs that use or manufacture photonics systems. These courses have a strong emphasis on laboratory work, and hardware demonstrations. Students will gain the applied skills required to succeed in four-year engineering programs, graduate school, and industries, including medicine, remote sensing, manufacturing, telecommunications, and entertainment.

Complete the following courses:

- ET 102 BASIC ELECTRIC CIRCUITS I
- ET 105 ELECTRONIC DEVICES AND CIRCUITS I 4 Units
- LET 205 FUNDAMENTALS OF LIGHT

Total Units Required: 21
To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Library and Tutoring Services

Dean: Joseph Poshek<br>Academic Chair: Cheryl Bailey<br>Library Faculty: Cheryl Bailey; Celina Lee; Anthony Lin<br>Sr. Lab Tech: Alice Griffin

## Courses

Library courses are designed to assist and instruct students in accessing and using the resources they need to successfully complete classroom assignments. The library research courses (LIB 10 and LIB 11) fulfills general education requirements for the associate degree and is transferable to CSU and UC.

Tutoring courses teach students to become effective tutors (TU 100) and also offer students an opportunity to receive tutoring through the college's Student Success Center ( TU 301).

## Program Student Learning Outcomes

Upon completion of the library program, students will be able to locate the appropriate resources for their information needs.
Upon participation in tutoring at the Student Success Center, students will improve the effectiveness of their study skills.

## Potential Careers

With an associate degree or certificate in library technology, students may be able to pursue careers in the following fields:

- Library Assistant
- Library Technician
- Library Page

With an advanced degree (MLS) in Library Science, students will be prepared for careers in the following fields:

- Librarian
- Archivist
- Information Specialist
- Cloud/Metadata Support Specialist
- User-Service Specialist


## Mathematics

Dean: Lianna Zhao, MD

Academic Co-Chairs: Brett Monte, PhD; Lan Pham, PhD
Faculty: Miriam Castroconde; Carlo Chan, PhD; Terry Cheng; Joshua Danufsky; RJ Dolbin, PhD; Ilknur Erbas-White; Catherine Famiglietti, PhD; Sanjai Gupta, PhD; Kenn Huber, PhD; Brent Monte, PhD; Lan Pham, PhD; Joel Sheldon; Benjamin Vargas, PhD; Richard Zucker

## Courses

The Mathematics Department at Irvine Valley College offers a wide range of courses to meet the varied needs of students pursuing their academic and vocational goals. The department offers a comprehensive curriculum for students who plan to transfer to four-year colleges and universities. In addition, the department offers developmental courses taught in a variety of formats. Students can enroll in these courses for personal enrichment and/or to get ready to take courses at the college level. The department offers support for all mathematics students in the Mathematics Center, a facility staffed by faculty and tutors.

## Major

The completion of an Associate in Arts degree in mathematics or an Associate in Science degree in mathematics for transfer demonstrates commitment to the field and provides comprehensive preparation for upper-division courses in most professional careers related to mathematics.

## Program Student Learning Outcomes

Upon completion of the mathematics program, students will be able to

- Perform arithmetic operations proficiently.
- Demonstrate proficiency in algebra.
- Solve application problems at the level of the course in which they are enrolled.
- Interpret the solution of an application problem and provide an answer appropriate to the context of the problem.
- Demonstrate proficiency in the material of the course in which they are enrolled.
- Use technology in the problem-solving process, when appropriate.


## Potential Careers (For Non-Transfer Degree Recipients)

A two-year degree in mathematics equips students with problem-solving skills that employers in many fields find attractive. Some of the jobs that a person with an AS in mathematics could obtain are:

- Accounts payable or receivables clerk
- Assistant to a certified public accountant
- Auditing clerk
- Bank teller
- Bookkeeper
- Clerk in a brokerage firm
- Computer technician
- Insurance sales agent
- Loan processor
- New accounts clerk
- Payroll clerks
- Tutor

Additionally, an AS in mathematics will give students a strong background to continue their education in four-year colleges in any STEM field. Below is a list of some career paths that a student with an AS degree in mathematics could follow.

- Astronomy
- Business Administration
- Chemistry
- Computer Science
- Economy
- Engineering
- Mathematics
- Operations Research
- Physics
- Psychology
- Statistics
- Teaching


Math courses needed for transfer vary by institution. See a counselor for more precise information.

## Mathematics for Transfer, AS-T

Complete the following courses:

- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units
or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units
- MATH 4A ANALYTIC GEOMETRY AND CALCULUS III 5 Units

Complete one course from the following:

- MATH 24 ELEMENTARY DIFFERENTIAL EQUATIONS 4 Units or
- MATH 24H ELEMENTARY DIFFERENTIAL EQUATIONS HONORS 4 Units
- MATH 26 INTRODUCTION TO LINEAR ALGEBRA 4 Units

Complete one course from the following (any course not used above):

- CS 6B COMPUTER DISCRETE MATHEMATICS II 3 Units * OR
- MATH 31 COMPUTER DISCRETE MATHEMATICS II 3 Units *
- CS 30 VISUAL BASIC PROGRAMMING 3 Units
- CS 36 C PROGRAMMING 3 Units
- CS 37 C++ PROGRAMMING 3 Units
- CS 38 JAVA PROGRAMMING 3 Units
- CS 40A COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE I 3 Units
- CS 40B COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE II 3 Units
- CS 41 DATA STRUCTURES 3 Units
- CS 130 Visual Basic Programming
- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- PHYS 4A GENERAL PHYSICS 4 Units

Total Units Required: 22-23

* Cross-listed course: Area credit given in one area only.

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Mathematics, AA

## Complete the following courses:

- MATH 3A ANALYTIC GEOMETRY AND CALCULUS I 5 Units
or
- MATH 3AH ANALYTIC GEOMETRY AND CALCULUS I HONORS 5 Units
- MATH 3B ANALYTIC GEOMETRY AND CALCULUS II 5 Units
or
- MATH 3BH ANALYTIC GEOMETRY AND CALCULUS II HONORS 5 Units
- MATH 4A ANALYTIC GEOMETRY AND CALCULUS III 5 Units
- MATH 24 ELEMENTARY DIFFERENTIAL EQUATIONS 4 Units or
- MATH 24H ELEMENTARY DIFFERENTIAL EQUATIONS HONORS 4 Units


## Complete one of the following courses:

- PHYS 4A GENERAL PHYSICS 4 Units
- CS 10 INTRODUCTION TO PROGRAMMING USING PYTHON 3 Units
- CS 36 C PROGRAMMING 3 Units
- CS 37 C++ PROGRAMMING 3 Units


## Total Units Required: 26-27

## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Music

Dean: Joseph Poshek
Academic Chair: Matthew Tresler, DMA
Faculty: Susan Boettger, DMA; Daniel Luzko, DMA; Matthew Tresler, DMA
Lab Tech: Mark Petersen
Staff Accompanist: Kate Lin; Julia Oh

## Courses

The music curriculum is designed to provide a thorough and high-quality course of study for the transferring music major, as well as opportunities for students in other fields to learn about music through courses and through participation in performing groups. Courses offered in the music curriculum meet major transfer requirements, and many also meet general education requirements in the arts and/or humanities. The curriculum includes courses in music performance, theory, history, and appreciation, as well as a variety of fine vocal and instrumental ensembles. Additionally, courses of instruction are offered in guitar, piano and voice.

## Music Major Program

The department offers this program to qualified music students who wish to develop their performance abilities. Admission to the program is done by auditions, which are scheduled before the start of fall and spring semesters. Students must complete certain course requirements including specific classes in order to receive one-on-one vocal, instrumental, or piano instruction, the main concentrations of the program. For more information call 949-451-5538 or email mtresler@ivc.edu.

## Music Transfer Degree

The Associate in Arts in Music for Transfer (AA-T in Music) is designed to provide a thorough and high-quality course of study for the transferring music major, as well as opportunities for students in other fields to learn about music through courses and through participation in performing groups. Courses offered in the music curriculum meet major transfer requirements, and many also meet general education requirements in the arts. The curriculum includes courses in music performance, theory, as well as a variety of fine vocal and instrumental ensembles. Additionally, courses of instruction are offered in guitar, piano, and voice.

Students in the major will receive leveled performance training on their given instrument with emphasis on technical skills and stylistic context. Instruction focuses on developing a connection with the expressive and creative self.

## Program Student Learning Outcomes

Upon completion of the music program, students will be able to

- Demonstrate literacy in both music notation and discourse about music.
- Develop an understanding of the historical and cultural context of musical style.
- Demonstrate artistic and creative growth as a musician.


## Instrumental Performance

The mission of the IVC Instrumental Music Area (IMA) is to provide the finest artistic experience possible for its students and audiences. The IMA is one of the most active and visible programs of the college. IMA performance ensembles serve as a nexus between music students, the college and local communities, and student and professional composers and soloists. Currently there are performance opportunities in the Jazz Ensemble, Symphony Orchestra, Wind Symphony, and Guitar Program. IMA Alumni have transferred to each of the region's universities as well as to out of state universities and into the United States Military Music Programs and are now working in the vast array of music professions.

The Jazz Ensemble, Symphony Orchestra, Wind Symphony, and guitar classes are exemplary of the California Community Colleges. Membership is drawn from traditional college-aged students as well as from community members of all ages and experiences. Graduates have transferred to all of the region's major universities and are active in many professions of music.

| Instrumental Performance Rehearsal Days and Times |  |
| ---: | :--- |
| Jazz Ensemble: | Mondays, 7:00-9:50 p.m. |
| Orchestra: | Tuesdays, 7:00-9:50 p.m. |
| Wind Symphony: | Wednesdays, 7:00-9:50 p.m. |
| Guitar: | Thursdays, 7:00-9:50 p.m. |

The Jazz Ensemble, Symphony Orchestra and Wind Symphony courses are not beginning instrument or beginning music reading courses. Students should have three years of ensemble experience before joining. Interested string, brass, woodwind, percussion and guitar players are encouraged to consider joining one of the ensembles or course offerings. For further information, please contact Dr. Stephen Rochford at srochford@ivc.edu or 949-451-5366.

Under the direction of Mr. Kevin Jellison, the guitar program offers recital opportunities for students to perform as soloists and in small and large ensembles in three levels of class guitar and the new guitar ensemble. For further information, please contact Mr. Jellison at kjellison@ivc.edu.

## Jazz Ensemble

The Jazz Ensemble was formed in 1998 and has remained an active and vibrant part of the college since. The ensemble performs newly composed works as well as music from the repertoire of the jazz big band tradition. The Jazz Ensemble is also the featured performance at the annual IVC Jazz Picnic. For further information, please contact conductor Dan St. Marseille at dstmarseille@ivc.edu.

## Symphony Orchestra

The IVC Symphony Orchestra is a traditional ensemble of orchestral strings (violin, viola, cello, and bass), woodwinds, brass and percussion. The Symphony Orchestra performs works from the Renaissance period to the 21st century, including original works drawn from the vast orchestral repertoire, transcriptions, and new works commissioned from professional composers and student composers. The Symphony Orchestra also features the Ill-Tempered Chamber Players, a small select pull-out ensemble that performs mid-sized ensemble music from the Baroque period to the 21 st century, often without conductor. Finally, the Symphony Orchestra features professional and student guest conductors as well as featured concerto soloists each season. For further information, please contact Prof. Iman Khosrowpour at ikhosrowpour@ivc.edu.

## Wind Symphony

The IVC Wind Symphony is the oldest instrumental ensemble at IVC. It is an ensemble of traditional band/orchestra wind and percussion instruments. The Wind Symphony performs repertoire from the Renaissance period to the 21 st century, including original wind music; quality transcriptions of folk, orchestral, choral and other music; as well as brand new music composed for the medium. Since 1991 the ensemble has performed over 50 world, state, or regional premieres of new music, including over 10 works commissioned directly from professional composers and from IVC composition students. In addition to the large Wind Symphony, the ensemble also performs in smaller ensembles and features professional and student guest conductors and soloists each season. For further information, please contact Dr. Stephen Rochford at srochford@ivc.edu.

## Keyboard Performance

The IVC Keyboard Department is a vibrant program with renowned piano faculty and visiting artists, impeccably maintained Steinway pianos, and a busy calendar of concerts. The Piano Performance and Ensemble course and Piano Major train top local and international students to perform and transfer to elite conservatories and music programs. Students from this course have been accepted to Juilliard, Stanford University, USC, and other music conservatories. Visiting artists have included teachers from USC, Curtis, UC Irvine, and the Colburn School. All students in the performance course and major have the opportunity to perform on the main stage of the Performing Arts Center, which boasts two new Steinway D concert grands. The Keyboard Series brings a strong performance component to the department, featuring many of our Juilliard-trained IVC piano faculty and internationally renowned guest keyboard artists. Group Lessons: Group piano classes are offered for every level of student, from the absolute beginner to the advanced. The Piano I, II, III, and IV courses offer a comprehensive and effective piano program which provides a solid foundation in reading notation, technique, and repertoire. Our brand new Yamaha Keyboard Lab ensures that every student has their own keyboard, with students receiving individual as well as group training. For more information, please contact Dr. Susan Boettger at sboettger@ivc.edu.

# Thursdays, 

# Choral Performance 

## Master Chorale


#### Abstract

The Master Chorale was the first music ensemble at IVC, performing for the first time in 1979. Since that time, the Master Chorale has offered performances from the great masterworks of the Western canon to the Great American Songbook, to the vast treasury of choral music from the world's cultures. The choir has traveled to Europe and South America, and choir members have performed on the stage of Carnegie Hall. This auditioned, mixed-voice choir continues to present concerts of masterworks with orchestra and concerts of varied repertoire from chant and motets, to folk songs and commissioned works. For further information or to audition, please contact Dr. Matthew Tresler at 949-451-5538 or mtresler@ivc.edu.


Choral Performance Rehearsal Days and Times

Tuesdays,<br>Master Chorale: 7:00-9:50<br>p.m.

## Group Class Music Lessons

The Music Department recognizes that, for many students, learning how to play an instrument or sing can be a source of great enrichment in their college education. Class lessons in guitar, piano and voice are offered by expert teachers-performers of the highest caliber who can be seen and heard in professional venues around Southern California. Not only do students learn the rudiments of performance; they are able to proceed from beginning to intermediate and advanced levels of instruction. Class instruction in performance has proven educational benefits, enhancing learning as well as providing peer support and motivation. An additional benefit is that class lessons are economical for IVC students.

## Music History

The Department of Music offers general education breadth courses in music history. These courses are appropriate as part of a student's general education transfer preparation or as part of a student's interest in learning more about the diverse disciplines of the arts. Music Appreciation (MUS 20) is the standard collegiate lower-division course covering musical style and genre, as well as historical and biographical information about the many European classical music traditions. World Music (MUS 21) covers musical style and genre, and historical and sociological aspects of music from non-European sources. History of Rock Music (MUS 28), one of the most popular courses in the program, covers musical style and genre, as well as historical, biographical, and political aspects of this important contemporary art form. All of these courses are transferable to both the UC and CSU systems.

## Music Theory and Composition

IVC offers a spectrum of music theory classes for all levels. Students may complement their studies with The Basics of Music (MUS 1). This course is designed primarily for the general education student and is transferable to both the UC and CSU
systems. The department also offers the traditional lower division of Music Theory/Harmony (MUS 3, MUS 4, MUS 5, MUS 6). This is a four-semester sequence designed primarily for the serious music student and music major with comprehensive training in musical structures, harmony, ear training, sight-singing, dictation, and keyboard harmony, and spans the Baroque through contemporary periods of music. The Department of Music promotes and includes student and professional composition in each of its areas, disciplines and performance ensembles. Composition is taught across the Music Theory curriculum. IVC music students have won state composition contests, participated in composition conferences, and been accepted at the region's major universities. Music alumni are published professional composers in the classical, pop, film, radio and television industries. Moreover, IVC music students can develop their creative knowledge and artistic skills in a supportive environment and have numerous opportunities to receive performances and readings of their music in concerts, recitals and rehearsals. These activities include the annual composer's concert every April and readings by major IVC music ensembles each semester. Finally, a yearly composition competition invites not only IVC music students, but also student composers from other institutions to compete and earn cash prizes at the IVC Music Student Composers Competition. For more information on music theory and composition classes, please contact Dr. Daniel Luzko at 949-451-5762 or dluzko@ivc.edu.

## Potential Careers

Examples of careers in music include the following:

- Accompanist
- Agent
- Arranger
- Arts Attorney
- Arts Journalist/Reviewer
- Arts Management
- Arts Marketing and Sales
- Composer
- Conductor
- Contract Attorney
- Copyist
- Curator (Arts, Instruments and Manuscripts)
- Editor
- Foley Artist
- Instrument Designer and Builder
- Instrument Manufacturer
- Instrument Repair
- Intellectual Property Rights Attorney
- Keyboard Technician
- Music Consultant
- Music Librarian
- Music Psychology
- Music Store Owner
- Music Theoretician
- Music Therapy
- Musicologist
- Organ Builder/Tuner/Technician
- Part Preparer
- Performer
- Piano Tuner
- Producer
- Proofreader
- Publisher
- Sound and Stage Technician
- Sound Designer
- Sound Engineer
- Teacher
- Web Sound Designer


## Music for Transfer, AA-T

## Complete the following courses:

## First Semester

- MUS 3 HARMONY I 4 Units

One of the following:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
or
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit

One of the following:

- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit
or
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Second Semester

- MUS 4 HARMONY II 4 Units

One of the following:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit or
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit One of the following:
- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit or
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit

Third Semester

- MUS 5 HARMONY III 4 Units

One of the following:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit or
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit One of the following:
- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit or
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Fourth Semester

- MUS 6 HARMONY IV 4 Units

One of the following:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
or
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit

One of the following:

- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit or
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Total Units Required: 24

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Music, AA

Complete the following courses (see note below):

- MUS 54 PIANO I 2 Units
- MUS 55 PIANO II 2 Units

NOTE: Students who have acquired fluency in piano may substitute MUS 56, Piano III, and/or MUS 57, Piano IV.

## Complete the following courses:

## First Semester

- MUS 3 HARMONY I 4 Units
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Performance Ensembles

Complete one of the following courses:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit

Applied Music: Instrumental, Keyboard or Voice

Complete one of the following courses:

- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit


## Second Semester

- MUS 4 HARMONY II 4 Units
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Performance Ensembles

Complete one of the following courses:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit

Applied Music: Instrumental, Keyboard or Voice

Complete one of the following courses:

- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit


## Third Semester

- MUS 5 HARMONY III 4 Units
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Performance Ensembles

Complete one of the following courses:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit


## Applied Music: Instrumental, Keyboard or Voice

Complete one of the following courses:

- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit


## Fourth Semester

- MUS 6 HARMONY IV 4 Units
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit


## Performance Ensembles

Complete one of the following courses:

- MUS 39 IRVINE VALLEY MASTER CHORALE 1 Unit
- MUS 40 WIND SYMPHONY 1 Unit
- MUS 42 SYMPHONY ORCHESTRA 1 Unit
- MUS 44 GUITAR ENSEMBLE 1 Unit
- MUS 46 JAZZ ENSEMBLE 1 Unit
- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit


## Applied Music: Instrumental, Keyboard or Voice

Complete one of the following courses:

- MUS 50 APPLIED MUSIC: INSTRUMENTAL 0.5 Unit
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit
- MUS 52 APPLIED MUSIC: VOICE 0.5 Unit


## Total Units Required: 28

## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Piano Pedagogy, COP

The Piano Pedagogy Certificate prepares music teachers for future employment in local music schools as an independent private teacher. This certificate examines a variety of pedagogy methods and music conservatory traditions for teaching beginner, intermediate, and advanced piano students. This certificate covers how to teach group piano courses, master classes, and explores the business side of running a piano studio. Additional courses in piano accompanying, collaborative piano, entrepreneurial skills, and childhood and adolescence development psychology are also included.

## Complete the following courses:

- MUS 255 BEGINNING PIANO PEDAGOGY 3 Units
- MUS 256 INTERMEDIATE AND ADVANCED PIANO PEDAGOGY 3 Units

Complete any of the following courses (6 units):

- MUS 59 PIANO PERFORMANCE AND ENSEMBLE 1 Unit
- MUS 65 PIANO ACCOMPANYING 1.5 Units
- MUS 51 APPLIED MUSIC: KEYBOARD 0.5 Unit AND
- MUS 53 APPLIED MUSIC PERFORMANCE WORKSHOP 0.5 Unit
- MUS 62 COLLABORATIVE PIANO 1.5 Units
- ENTR 200 PATHWAYS TO SUCCESS 0 Units
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units


## Total Units Required: 12-12.5

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Paralegal Studies

## Dean: Traci Fahimi

Academic Chair: Bennet Tchaikovsky, CPA, Esq.
Faculty: June McLaughlin, Esq., LLM, LLM

## Courses

Courses in the paralegal studies program provide students with the skills and knowledge needed to work as a paralegal in civil litigation, bankruptcy or estate planning law firms; an understanding of ethical rules and regulations applicable to legal professionals; an overview of legal theory; and a practical introduction to legal research and writing.

## Major

A paralegal is an individual who, although not a member of the legal profession, is qualified through education, training, and/or work experience to be employed or retained by a lawyer, law office, governmental agency, or other entity. The paralegal performs specifically delegated substantive legal work under the direction and supervision of an attorney. Some of the services that the paralegal provides for an attorney include legal research; development of law office systems; client interviews; drafts; pleadings; case briefs; legal calendaring; preparing discovery for litigated cases; preparing drafts of wills and trusts; and maintaining client records and files.

The paralegal program at Irvine Valley College prepares students to assist attorneys as paralegals in administrative agencies, corporations, insurance companies, private law firms, government and other legal environments. Emphasis is on training students in the practical application and development of up-to-date paralegal related job skills. In addition, the program introduces students to legal theory.

## Program Student Learning Outcomes

Upon completion of the paralegal program, students will be able to

- Employ legal terminology competently and generally define the major legal systems and the functions of the law in American society.
- Explain and cite examples of the ethical rules and concerns in the legal profession.


## Potential Careers

Most paralegals are employed by law firms, corporate legal departments, and various government offices. In these organizations, they can work in many different areas of the law, including litigation, personal injury, corporate law, criminal law, employee benefits, intellectual property, labor law, bankruptcy, immigration, family law, and real estate.

## Paralegal Associate of Sciences Degree \& Certificate of Achievement Requirements


#### Abstract

Students who do not already possess an associate or bachelor degree from a regionally accredited college or university must complete an associate degree ( 60 units) to receive the Certificate of Achievement. This requirement is in compliance with the ABA Guidelines for paralegal programs. Degree \& Certificate of Achievement candidate students are required to attend a paralegal orientation or a counseling session. Students must achieve a grade point average of 2.0 or higher in each paralegal studies course.

Paralegal studies course work taken at other institutions in an ABA approved program, with approval by the paralegal studies department, will qualify for no more than nine (9) units of transfer credit in legal specialty courses in the paralegal studies certificate program. Upon completion of the degree program, students will be awarded an associate degree in Paralegal Studies and a Certificate of Achievement in Paralegal Studies approved by the American Bar Association.

Students possessing a transferable associate or bachelor degree from a regionally accredited college or university, with official transcripts on file at Irvine Valley College, will be awarded a Certificate of Achievement in Paralegal Studies approved by the American Bar Association upon completion of the required courses..


## Paralegal Studies, AS

## Complete the following courses:

- LGL 201 INTRODUCTION TO PARALEGAL STUDIES AND ETHICS 2 Units
- LGL 202 COMPUTER TECHNOLOGY AND ELECTRONIC RESEARCH 3.5 Units
- LGL 203 BUSINESS LAW CONTRACTS AND TORTS 3 Units
- LGL 205 INTRODUCTION TO LEGAL RESEARCH AND WRITING 3 Units
- LGL 206A CIVIL LITIGATION I 3 Units
- LGL 206B CIVIL LITIGATION II 3 Units


## Complete a minimum of 9 semester units from the following courses:

- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units
- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units $\dagger$
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 1 Unit
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 2 Units
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 3 Units
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 4 Units
- LGL 208 WILLS, TRUSTS, AND ESTATES 3 Units
- LGL 209 BANKRUPTCY 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units †
- MGT 104 BUSINESS COMMUNICATION 3 Units
- RE 174A LEGAL ASPECTS OF REAL ESTATE I 3 Units †

Total Units Required: 26.5
$\dagger$ Recommended
To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Paralegal Studies, COA

Complete the following courses:

- LGL 201 INTRODUCTION TO PARALEGAL STUDIES AND ETHICS 2 Units
- LGL 202 COMPUTER TECHNOLOGY AND ELECTRONIC RESEARCH 3.5 Units
- LGL 203 BUSINESS LAW CONTRACTS AND TORTS 3 Units
- LGL 205 INTRODUCTION TO LEGAL RESEARCH AND WRITING 3 Units
- LGL 206A CIVIL LITIGATION I 3 Units
- LGL 206B CIVIL LITIGATION II 3 Units


## Complete a minimum of 9 semester units from the following courses:

- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units
- AJ 2 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 Units $\dagger$
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 1 Unit
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 2 Units
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 3 Units
- LGL 168 COOPERATIVE WORK EXPERIENCE: PARALEGAL STUDIES 4 Units
- LGL 208 WILLS, TRUSTS, AND ESTATES 3 Units
- LGL 209 BANKRUPTCY 3 Units
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units †
- MGT 104 BUSINESS COMMUNICATION 3 Units
- RE 174A LEGAL ASPECTS OF REAL ESTATE I 3 Units $\dagger$


## Total Units Required: 26.5

$\dagger$ Recommended

## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Pre-Law, COP

See an IVC counselor for course substitution if a course is not available.
Complete the following courses:

- LGL 205 INTRODUCTION TO LEGAL RESEARCH AND WRITING 3 Units
- LGL 215 Environmental Law and Policy
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units
- RD 174 Critical Reading


## Total Units Required: 12

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Philosophy

Interim Dean: Brooke Bui, PhD
Academic Chair: Jamie Poster, PhD
Faculty: Roy Bauer

## Courses

Each of the courses in the philosophy curriculum starts out with substantial instruction in reasoning skills. In the subsequent examinations of specific issues, students gradually develop their capacity to join in the examination with logical rigor. Students develop this capacity both in frequent class discussions and in writing assignments. Philosophy courses may be used to meet general education and transfer requirements in critical thinking and humanities.

## Major

The student of philosophy seeks to uncover the assumptions underlying our understanding of the world and to subject those assumptions to careful scrutiny using the tools of logic. Thus, in doing philosophy, one asks such fundamental questions as, "Can I really know anything about the world?" "What is my relationship to government and to society?" "Have I a free will?" "What is
the relationship between the language I use and the world?" In pursuing such questions systematically, one may approach the Socratic ideal of living the "examined life": a life in which one attempts to arrive at those beliefs best supported by reason.

## Program Student Learning Outcomes

Upon completion of the philosophy program, students will be able to

- Identify, analyze, and evaluate the epistemological assertions, metaphysical assumptions, and shared understandings that undergird particular cultural understandings as reflected in works of philosophy.
- Demonstrate willingness and ability to analyze ideas, events, and cultural texts from diverse origins.
- Demonstrate the ability to construct a critical argument synthesizing multiple perspectives and points of view.


## Potential Careers

The precision of thought and expression that philosophy requires makes excellent preparation for a variety of careers. Those who do well in philosophy can expect to think more clearly and logically and to approach problems or issues more systematically. Philosophy students are encouraged to develop a clear, precise, and direct writing style. Increasingly, the ability to write in this fashion is valued by employers.

Philosophy majors are among the most successful law students, owing to philosophy's emphasis on analysis, argumentation, and evaluation. Analytical skills developed in philosophy are also useful in a variety of fields, such as computer programming, business, policy analysis, government, and teaching. The major also provides a sound foundation for transfer students intending upper-division study in philosophy.

## Philosophy for Transfer, AA-T

Complete two of the following courses:

- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- PHIL 2 INTRODUCTION TO ETHICS 3 Units
- PHIL 3 INTRODUCTION TO LOGIC 3 Units

Complete one course from the following (any course not used above):

- PHIL 10 ANCIENT PHILOSOPHY 3 Units
- PHIL 11 MODERN PHILOSOPHY 3 Units

Complete two courses from the following, or PHIL 10 or 11:

- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units

OR

- WR 2H COLLEGE WRITING 2: CRITICAL THINKING, WRITING HONORS 4 Units

Complete the following course, or PHIL 10 or 11, or any course from the above list:

- PHIL 5 POLITICAL PHILOSOPHY 3 Units


## Total Units Required: 18-19

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Philosophy, AA

Complete the following courses:

- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- PHIL 3 INTRODUCTION TO LOGIC 3 Units
- PHIL 10 ANCIENT PHILOSOPHY 3 Units
- PHIL 11 MODERN PHILOSOPHY 3 Units
- WR 2 COLLEGE WRITING 2: CRITICAL THINKING, WRITING 4 Units

Complete one of the following courses:

- PHIL 2 INTRODUCTION TO ETHICS 3 Units
- PHIL 5 POLITICAL PHILOSOPHY 3 Units


## Total Units Required: 19

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Political Science

Dean: Traci Fahimi
Academic Chair: Joon Kil, PhD
Faculty: Joon Kil, PhD

## Courses

Since exposure to other political systems and ideas is vital in this increasingly interdependent world, students of all interests and backgrounds will find political science courses relevant and of value. The political science curriculum includes both required and elective courses appropriate for a general liberal arts education and for the major in political science. The core course, American Government, meets the general education requirement in American Institutions and lays a broad analytical framework that may be employed in examining political issues. Other courses in the curriculum meet general education requirements in the social sciences.

## Major

Most social, economic and moral issues have political implications; and governmental policy affects most aspects of daily life. Political science is an excellent liberal arts major for students interested in learning how groups of people govern themselves; how policies are made; and how we can improve our government policies at the local, state, national, and international levels. Those interested in American politics, international affairs, critical issues such as civil rights, health care, the environment and the deficit should consider this course of study.

## Program Student Learning Outcomes

Upon completion of the political science program, students will be able to

- Identify the institutions, actors and processes in both American national and state government.
- Understand the importance of citizenship and political participation.
- Analyze the exercise of power in formal governmental institutions and non-governmental institutions.
- Differentiate and classify political systems, their historical context and development, and the social and economic systems with which they interact.
- Compare the U.S. political system to the political systems of European, Asian, African, Latin American, and Middle Eastern states.
- Describe the political and economic relations among states and the transnational relations practiced by people, organizations, and institutions.
- Identify the methods, approaches, or theories used in accumulating and interpreting information applicable to the discipline of political science.
- Demonstrate knowledge of contemporary political issues and be able to present differing viewpoints.
- Demonstrate critical thinking skills and formulate and defend an argument about politics in a written and/or oral format.
- Demonstrate the basic research skills necessary to write a paper in the discipline of political science.
- Demonstrate basic knowledge of the content of the major subfields in political science: American Politics, Comparative Politics, International Relations, and Political Theory.


## Potential Careers (For Non-Transfer Degree Recipients)

Examples of careers for the political science major include the following:

- Teaching in Secondary and Post-secondary Schools
- Law
- Government Employment
- Campaign Manager
- Legislative Staff Member
- State, Local, and Federal Elected Office Holder
- Government Agency Employee
- Business and Private Agencies
- Insurance
- Agriculture
- Finance
- Consulting
- Research
- Communications and Journalism
- International Trade and Organizations
- United Nations
- International Business
- International Relief and Aid Group


## Political Science for Transfer, AA-T

Since exposure to other political systems and ideas is vital in this increasingly interdependent world, students of all interests and backgrounds will find political science courses relevant and of value. The political science curriculum includes both required and elective courses appropriate for a general liberal arts education and for the major in political science. The core course, American Government, meets the general education requirement in American Institutions and lays a broad analytical framework that may be employed in examining political issues. Other courses in the curriculum meet general education requirements in the social sciences. Most social, economic and moral issues have political implications; and governmental policy affects most aspects of daily life. Political science is an excellent liberal arts major for students interested in learning how groups of people govern themselves; how policies are made; and how we can improve our government policies at the local, state, national, and international levels. Those interested in American politics, international affairs, critical issues such as civil rights, health care, the environment and the deficit should consider this course of study.

## Complete the following courses:

- PS 1 AMERICAN GOVERNMENT 3 Units OR
- PS 1H AMERICAN GOVERNMENT HONORS 3 Units


## Complete 9 units from the following courses:

- PS 4 INTRODUCTION TO POLITICAL SCIENCE 3 Units
- PS 5 POLITICAL PHILOSOPHY 3 Units
- PS 12 COMPARATIVE POLITICS 3 Units

OR

- PS 12H COMPARATIVE POLITICS HONORS 3 Units
- PS 14 INTERNATIONAL RELATIONS 3 Units

OR

- PS 14H INTERNATIONAL RELATIONS HONORS 3 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units OR
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units OR
- PSYC 10H STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES HONORS 3 Units

Complete 6 units from the following courses:

- PS 3 CALIFORNIA GOVERNMENT AND POLITICS 3 Units
- PS 6 POLITICS AND GOVERNMENT OF THE MIDDLE EAST 3 Units
- PS 7 THE POLITICS OF COMMUNIST AND POST-COMMUNIST STATES 3 Units
- PS 17 LATIN AMERICAN POLITICS AND GOVERNMENT 3 Units
- PS 21 MODEL UNITED NATIONS 3 Units
- PS 41 THE HISTORY OF EAST ASIA SINCE 18003 Units
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 1 Unit OR
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 2 Units OR
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 3 Units OR
- PS 167 COOPERATIVE WORK EXPERIENCE: POLITICAL SCIENCE 4 Units


## Total Units Required: 18-19

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Political Science, AA

## Required Core Courses

Complete the following:

- PS 1 AMERICAN GOVERNMENT 3 Units
- PS 3 CALIFORNIA GOVERNMENT AND POLITICS 3 Units
- PS 4 INTRODUCTION TO POLITICAL SCIENCE 3 Units
- PS 5 POLITICAL PHILOSOPHY 3 Units
- PS 12 COMPARATIVE POLITICS 3 Units
- PS 14 INTERNATIONAL RELATIONS 3 Units


## Required Options, Regional Studies

Complete one of the following courses:

- PS 6 POLITICS AND GOVERNMENT OF THE MIDDLE EAST 3 Units
- PS 17 LATIN AMERICAN POLITICS AND GOVERNMENT 3 Units
- PS 41 THE HISTORY OF EAST ASIA SINCE 18003 Units


## Total Units Required: 21

## Recommended Electives:

- PS 168
- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units
- ECON 20 INTRODUCTORY ECONOMICS 3 Units
- HIST 10 WESTERN CIVILIZATION: BEGINNINGS TO THE REFORMATION 3 Units
- HIST 11 THE WEST AND THE WORLD SINCE THE RENAISSANCE 3 Units
- HIST 20 AMERICAN HISTORY THROUGH THE CIVIL WAR 3 Units
- HIST 21 AMERICAN HISTORY SINCE THE CIVIL WAR 3 Units
- MATH 10 INTRODUCTION TO STATISTICS 3 Units
- PHIL 2 INTRODUCTION TO ETHICS 3 Units
- PS 21 MODEL UNITED NATIONS 3 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Psychology

Dean: Traci Fahimi
Academic Chair: Yemmy Taylor, PhD
Faculty: Michael Cassens; Benjamin Mis, PhD; Yemmy Taylor, PhD; Kari Tucker, PhD

## Courses

Psychology courses at Irvine Valley College provide academic instruction in basic psychology concepts, theories, terminology and research methods, and promote students' life skills, personal growth and interpersonal effectiveness.

## Major

Students majoring in psychology at the lower-division level focus on understanding human personality and behavior, cognition, and emotions, as well as researching psychological issues of current concern. The critical insight that psychology requires makes
this major especially appropriate for those considering careers in any of the helping professions, teaching, or behavioral research; or for those seeking a widely applicable liberal arts background.

## Program Student Learning Outcomes

Upon completion of the psychology program, students will be able to

- List and describe the national, regional, and local psychological organizations which serve as informational resources and offer student memberships.
- State they were well-prepared to succeed in upper division coursework at their transfer university.
- Present a paper and/or a poster describing their psychological research study. A given presentation will take place in front of a classroom and/or at a local, regional, or national psychology conference and will conform to APA presentation guidelines.
- Identify the most appropriate statistical procedure, given different research scenarios.
- Demonstrate knowledge of proper content and formatting for an APA style manuscript.
- Use Statistical package for the Social Sciences (SPSS) Statistical software to perform the basic descriptive and inferential statistical procedures taught in introductory statistical courses.
- Describe several occupations within the field of psychology and the academic pathways leading to those occupations.
- Demonstrate knowledge of psychology's different perspectives.
- Cite and interpret current research evidence for alternative positions regarding key psychological issues.


## Potential Careers (For Non-Transfer Degree Recipients)

Because psychology seeks to understand many aspects of the individual (e.g., biological, motivational, cognitive, perceptual, attitudinal, developmental, personality, social influences, among others), it has many subdivisions or areas of specialization. Thus, the field of psychology offers many career choices and much flexibility.

In addition to interesting, challenging, and financially stable jobs, graduates in psychology spend a majority of their time understanding and/or helping others in many different settings. For example, graduates in psychology (especially those with graduate degrees) work in such settings as the following:

- Business and Industry
- Market Research Analyst
- Customer Service Director
- Advertising Manager
- Human Resources Administrator
- Labor Relations Specialist
- Nursing Home Administrator
- Personnel Manager
- Public Relations Manager
- Sales Representative
- Computer Applications
- Correctional institutions
- Probation/Parole Officer
- Counseling and Psychology
- Admissions Counselor
- Career Counselor
- Guidance Counselor
- Marriage Counselor
- Psychiatrist
- Psychologist
- Rehabilitation Counselor
- Substance Abuse Counselor
- Youth Counselor
- Education
- Health
- Gerontologist
- Hospital Administrator
- Mental Health Worker
- Speech Pathologist
- Law
- Medicine
- Military or Other Governmental Work
- Pharmaceuticals
- Public Relations
- Research
- Social Work
- Child Welfare Worker
- Community Services Agency Director
- Social Worker
- Sports

Some choose to work in more than one of these areas over their career, and most psychologists (those with an earned doctorate degree) earn above the median salary in the United States. No matter which area or setting a psychology graduate chooses, the field will always provide opportunities to understand and help others-the hallmark of the career in psychology.

## Psi Beta: National Honor Society in Psychology

The mission of the Psi Beta Honor Society is the professional development of psychology students in two-year colleges through the recognition and promotion of excellence in scholarship, leadership, research, and community service. Psi Beta members experience educational enrichment through service activities, participation in professional psychological conferences, and competition for national awards.

To qualify for membership in Psi Beta, students must have completed at least one college psychology course with a grade of "B" or higher, have completed 12 semester units at the college level, and have a cumulative grade point average of 3.25 or higher. After paying a one-time-only fee, membership is for life. For more information about Psi Beta, students may email ktucker@ivc.edu or call (949) 451-5447.

## Psychology for Transfer, AA-T

## Complete the following courses:

- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units
- PSYC 2 RESEARCH METHODS IN PSYCHOLOGY 4 Units
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units

Complete the following course:

- PSYC 3 PHYSIOLOGICAL PSYCHOLOGY 3 Units

Complete one course ( 3 or more units) from the following:

- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- PSYC 30 SOCIAL PSYCHOLOGY 3 Units
- PSYC 106 Developmental Psychology: Lifespan
- PSYC 160 Psychology as a Major and a Profession

Complete one course ( 3 or more units) from the following:

- PSYC 5 PSYCHOLOGICAL ASPECTS OF HUMAN SEXUALITY 3 Units
- PSYC 13 PSYCHOLOGY OF REASONING AND PROBLEM SOLVING 3 Units
- PSYC 32 PSYCHOLOGY OF PERSONALITY 3 Units
- PSYC 33 PSYCHOLOGY OF ADJUSTMENT 3 Units
- PSYC 37 ABNORMAL BEHAVIOR 3 Units


## Total Units Required: 18

* Cross-listed course: Area credit given in one area only.

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Psychology, AA

This program was revised for the August 2017 edition of the IVC catalog. Please consult a counselor if you have any questions.
Complete the following courses:

- PSYC 1 INTRODUCTION TO PSYCHOLOGY 3 Units OR
- PSYC 1 H INTRODUCTION TO PSYCHOLOGY HONORS 3 Units
- PSYC 2 RESEARCH METHODS IN PSYCHOLOGY 4 Units
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units OR
- PSYC 10H STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES HONORS 3 Units OR
- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- ECON 10H STATISTICS FOR BUSINESS AND ECONOMICS HONORS 3 Units OR
- MGT 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- MGT 10H STATISTICS FOR BUSINESS AND ECONOMICS HONORS 3 Units OR
- MATH 10 INTRODUCTION TO STATISTICS 3 Units

Category A: Complete 3-4 units from the following:

- PSYC 3 PHYSIOLOGICAL PSYCHOLOGY 3 Units OR
- PSYC 3H PHYSIOLOGICAL PSYCHOLOGY HONORS 3 Units
- PSYC 3L PHYSIOLOGICAL PSYCHOLOGY LAB 1 Unit
- PSYC 6 DEVELOPMENTAL PSYCHOLOGY-LIFESPAN 3 Units
- PSYC 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units OR
- HD 7 DEVELOPMENTAL PSYCHOLOGY: CHILDHOOD AND ADOLESCENCE 3 Units
- PSYC 11 INTRODUCTION TO LANGUAGE ACQUISITION 3 Units

Category B: Complete 3 units from the following:

- PSYC 13 PSYCHOLOGY OF REASONING AND PROBLEM SOLVING 3 Units OR
- PSYC 13H PSYCHOLOGY OF REASONING AND PROBLEM SOLVING HONORS 3 Units
- PSYC 32 PSYCHOLOGY OF PERSONALITY 3 Units
- PSYC 33 PSYCHOLOGY OF ADJUSTMENT 3 Units
- PSYC 37 ABNORMAL BEHAVIOR 3 Units

OR

- PSYC 37H ABNORMAL BEHAVIOR HONORS 3 Units

Category C: Complete 2-3 units from the following:

- PSYC 5 PSYCHOLOGICAL ASPECTS OF HUMAN SEXUALITY 3 Units OR
- PSYC 5H PSYCHOLOGICAL ASPECTS OF HUMAN SEXUALITY HONORS 3 Units
- PSYC 15A FACULTY MENTORED INDEPENDENT RESEARCH IN PSYCHOLOGY A 2 Units
- PSYC 20 THE PSYCHOLOGY OF GENDER 3 Units
- PSYC 30 SOCIAL PSYCHOLOGY 3 Units OR
- SOC 30 SOCIAL PSYCHOLOGY 3 Units

Total Units Required: 18-20

## Recommended Electives:

- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units

OR

- ANTH 2H CULTURAL ANTHROPOLOGY HONORS 3 Units
- BIO 5 ANIMAL BIOLOGY 4 Units
- BIO 12 HUMAN PHYSIOLOGY 4 Units
- CHEM 1A GENERAL CHEMISTRY I 5 Units
- PHIL 1 INTRODUCTION TO PHILOSOPHY 3 Units
- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units OR
- SOC 1H INTRODUCTION TO SOCIOLOGY HONORS 3 Units


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.
To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Reading

Interim Dean: Brooke Bui, PhD

## Courses

The Reading Program at Irvine Valley College prepares students for the demands of reading expectations in their college course work, increases their reading rate and comprehension levels, and allows them to read and write critically and analytically, including college level reading found in both college text books and articles. RD 74 is a critical reading course designed to teach students to read and write analytically. This course focuses on analysis of written arguments.

## Program Student Learning Outcomes

Upon completion of the reading courses, students will be able to

- Correctly identify the main idea in each of five paragraphs.
- Create a main idea sentence when given a topic.


## Real Estate

Dean: Traci Fahimi
Academic Chair: Bennet Tchaikovsky, CPA, Esq.
Faculty: Rick H. Boone, MBA

## Courses

The IVC Real Estate program includes courses in business, real estate and finance. Students learn the principles, techniques and problems related to the transfer of real property, personal property, businesses and franchises, including appraising and financing.

## Major

Students who complete the core curriculum are equipped with not only immediately marketable skills but also the coursework necessary to sit for the California Real Estate Broker's Examination. They also earn transferable lower-division credit that may be applied toward a baccalaureate degree in business-related areas. In addition, individual courses in such areas as appraisal, property management, and real estate finance will provide students with entry-level skills in these areas. Courses are offered either online or during the evening to allow individuals with family and employment commitments the opportunity to study for a new or re-entry career.

## Program Student Learning Outcomes

Upon completion of the real estate program, students will be able to

- Explain how state and federal antidiscrimination laws impact real estate activities.
- Identify the various ways of holding title to real property including any rights of survivorship.
- Explain how agency relationships affect a real estate licensee's disclosure requirements.


## Potential Careers

Numerous career opportunities exist for all students in the program, both those who take individual courses and those who complete the coursework for the major. Examples of careers include the following:

- Appraiser
- Escrow Officer
- Loan Officer
- Property Manager
- Real Estate Broker
- Real Estate Salesperson

Students must meet the prerequisites and pass the necessary exams that may be required for licensing. Check the California Bureau of Real Estate for updates (www.dre.ca.gov).

## Real Estate Sales, COP

This certificate of proficiency parallels the state's requirement for the Real Estate Salesperson license. It is recommended for anyone wishing to obtain a real estate sales license which allows for immediate vocational employment.

## Complete the following courses:

- RE 170 REAL ESTATE PRINCIPLES 3 Units
- RE 172 REAL ESTATE PRACTICE 3 Units


## Select one course from the following:

- RE 174A LEGAL ASPECTS OF REAL ESTATE I 3 Units
- RE 175 REAL ESTATE FINANCE 3 Units
- RE 176A REAL ESTATE APPRAISAL I 3 Units
- RE 190 ESCROW I 3 Units
- RE 195 PROPERTY MANAGEMENT I 3 Units


## Total Units Required: 9

## To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Real Estate, AS

Students who complete the core curriculum are equipped with not only immediately marketable skills but also the coursework necessary to sit for the California Real Estate Salesperson and Broker Examinations. The goal of the program is to prepare the student for entry into the real estate field in such career areas as Real Estate Sales Agent, Real Estate Broker, Loan Officer, Property Manager, Title Examiner, Leasing Agent, Escrow Officer and other real-estate-related fields. Students also earn transferable lower-division credit that may be applied toward a baccalaureate degree in business-related areas. In addition, individual courses in such areas as appraisal, property management, and real estate finance will provide students with entry-level skills in these areas. Courses are offered either online or during the evening to allow individuals with family and employment commitments the opportunity to study for a new or re-entry career.

Complete the following courses:

- RE 172 REAL ESTATE PRACTICE 3 Units
- RE 174A LEGAL ASPECTS OF REAL ESTATE I 3 Units
- RE 175 REAL ESTATE FINANCE 3 Units
- RE 176A REAL ESTATE APPRAISAL I 3 Units


## Complete one of the following courses:

- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units OR
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units OR
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units
- ECON 20 INTRODUCTORY ECONOMICS 3 Units OR
- ECON 20H INTRODUCTORY ECONOMICS HONORS 3 Units
- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units OR
- ACCT 1BH MANAGERIAL ACCOUNTING HONORS 4 Units
- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units
- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units

Complete four of the following courses:

- RE 170 REAL ESTATE PRINCIPLES 3 Units
- RE 190 ESCROW I 3 Units
- RE 195 PROPERTY MANAGEMENT I 3 Units
- RE 250 REAL ESTATE SALESPERSON'S LICENSE PREPARATION 1 Unit
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units OR
- MGT 12AH THE LEGAL ENVIRONMENT OF BUSINESS HONORS 3 Units

Total Units Required: 25-28

## Recommended Electives:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 117 SOCIAL MEDIA MARKETING 3 Units OR
- ENTR 117 SOCIAL MEDIA MARKETING 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units
- RE 168 COOPERATIVE WORK EXPERIENCE: REAL ESTATE 4 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Real Estate, COA

Students who complete the core curriculum are equipped with not only immediately marketable skills but also the coursework necessary to sit for the California Real Estate Salesperson and Broker Examinations. The goal of the program is to prepare the student for entry into the real estate field in such career areas as Real Estate Sales Agent, Real Estate Broker, Loan Officer, Property Manager, Title Examiner, Leasing Agent, Escrow Officer and other real-estate-related fields. Students also earn transferable lower-division credit that may be applied toward a baccalaureate degree in business-related areas. In addition, individual courses in such areas as appraisal, property management, and real estate finance will provide students with entry-level skills in these areas. Courses are offered either online or during the evening to allow individuals with family and employment commitments the opportunity to study for a new or re-entry career.

## Complete the following courses:

- RE 172 REAL ESTATE PRACTICE 3 Units
- RE 174A LEGAL ASPECTS OF REAL ESTATE I 3 Units
- RE 175 REAL ESTATE FINANCE 3 Units
- RE 176A REAL ESTATE APPRAISAL I 3 Units


## Complete one of the following courses:

- ECON 1 PRINCIPLES OF ECONOMICS - MICRO 3 Units OR
- ECON 1H PRINCIPLES OF ECONOMICS - MICRO HONORS 3 Units
- ECON 2 PRINCIPLES OF ECONOMICS - MACRO 3 Units OR
- ECON 2H PRINCIPLES OF ECONOMICS - MACRO HONORS 3 Units
- ECON 13 GLOBAL ECONOMICS 3 Units
- ECON 20 INTRODUCTORY ECONOMICS 3 Units

OR

- ECON 20H INTRODUCTORY ECONOMICS HONORS 3 Units
- ACCT 1A FINANCIAL ACCOUNTING 4 Units
- ACCT 1B MANAGERIAL ACCOUNTING 4 Units OR
- ACCT 1BH MANAGERIAL ACCOUNTING HONORS 4 Units
- ACCT 204 ACCOUNTING APPLICATIONS: QUICKBOOKS 3 Units
- ACCT 215 BOOKKEEPING AND GENERAL ACCOUNTING 3 Units

Complete four of the following courses:

- RE 170 REAL ESTATE PRINCIPLES 3 Units
- RE 190 ESCROW I 3 Units
- RE 195 PROPERTY MANAGEMENT I 3 Units
- RE 250 REAL ESTATE SALESPERSON'S LICENSE PREPARATION 1 Unit
- MGT 12A THE LEGAL ENVIRONMENT OF BUSINESS 3 Units

OR

- MGT 12AH THE LEGAL ENVIRONMENT OF BUSINESS HONORS 3 Units


## Total Units Required: 25-28

## Recommended Electives:

- CIM 107 INTRODUCTION TO PERSONAL COMPUTER APPLICATIONS 3 Units
- CIM 117 SOCIAL MEDIA MARKETING 3 Units

OR

- ENTR 117 SOCIAL MEDIA MARKETING 3 Units
- MGT 1 INTRODUCTION TO BUSINESS 3 Units
- MGT 104 BUSINESS COMMUNICATION 3 Units
- MGT 135 PRINCIPLES OF MARKETING 3 Units
- RE 168 COOPERATIVE WORK EXPERIENCE: REAL ESTATE 4 Units


## To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Sociology

Dean: Traci Fahimi
Academic Chair: Elizabeth Chambers, PhD
Faculty: Elizabeth Chambers, PhD; Robert Hollenbaugh, PhD

## Courses

Sociology focuses on patterns of human behavior within social contexts, seeking to understand both the forces that mold us as individuals and the elements that govern our social existence. Sociology's subject arena ranges from the intimate family to the hostile mob, from crime to religion, from the divisions of race, gender, and social class to the shared beliefs of a common culture. Courses offered in the curriculum may be taken to fulfill general education requirements in the social sciences, and they may be applied toward an Associate in Arts degree in Sociology for Transfer or the departmental Associate in Arts degree with a major in sociology.

## Major

In studying sociology, students develop an understanding of the cultural and social influences that interact in the world and that affect people's lives. Thus those who are considering careers in such professions as law, business, education, architecture, medicine, social work, politics, public administration, or related areas will find that the sociology major provides a rich fund of knowledge directly concerning each of these fields.

## Program Student Learning Outcomes

Upon completion of the sociology program, students will be able to

- Discuss human behavior using the sociological perspective.
- Articulate the role of theory in sociology.
- Articulate the role of social research methods in sociology.
- Define and illustrate key sociological concepts.
- Summarize basic knowledge, questions, and issues in substantive areas of sociology.
- Communicate effectively about sociology.


## Potential Careers (For Non-Transfer Degree Recipients)

According to the American Sociological Association, a bachelor's (BA/BS) degree in sociology provides an excellent liberal arts foundation. Undergraduate training in sociology can open a variety of doors in business and the human services. Sociology majors who enter the business world work in sales, marketing, customer relations, or human resources. Those who enter human services work with youths at risk, the elderly, or people experiencing problems related to poverty, substance abuse, or the justice system.

An advanced degree (MA, MS or PhD ) qualifies a student to compete for a position teaching and/or conducting research in academic settings, or for a wide variety of research, policy, and applied sociology positions in the private and public sectors.

Examples of specific industries in which a graduate of sociology may choose to work are the following:

- Business
- Business Consultation
- Child Welfare
- City Management
- Consulting-Education
- Criminal Justice
- Education-Administration
- Evaluation Research
- Federal Government
- Gerontology
- Healthcare
- International Relations
- Law
- Military
- Public Relations
- Seminar and Workshop Consultations
- State Agencies
- State Government
- Urban Social Work


## Sociology for Transfer, AA-T

Sociology focuses on patterns of human behavior within social contexts, seeking to understand both the forces that mold us as individuals and the elements that govern our social existence. Sociology's subject arena ranges from the intimate family to the hostile mob, from crime to religion, from the divisions of race, gender, and social class to the shared beliefs of a common culture. Courses offered in the curriculum may be taken to fulfill general education requirements in the social sciences; and they may be applied toward a major in sociology for the Associate in Arts in Sociology for Transfer.

## Required Core (9 units):

- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units OR
- $\quad$ SOC 1 H INTRODUCTION TO SOCIOLOGY HONORS 3 Units

Complete 6 units from the following list of courses:

- MATH 10 INTRODUCTION TO STATISTICS 3 Units OR
- PSYC 10 STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES 3 Units OR
- PSYC 10H STATISTICAL METHODS IN THE BEHAVIORAL SCIENCES HONORS 3 Units OR
- ECON 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- ECON 10H STATISTICS FOR BUSINESS AND ECONOMICS HONORS 3 Units OR
- MGT 10 STATISTICS FOR BUSINESS AND ECONOMICS 3 Units OR
- MGT 10H STATISTICS FOR BUSINESS AND ECONOMICS HONORS 3 Units
- SOC 2 SOCIAL PROBLEMS 3 Units


## List A: Select two (6 units)

- SOC 10 INTRODUCTION TO MARRIAGE AND FAMILY 3 Units
- SOC 19 THE SOCIOLOGY OF SEX AND GENDER 3 Units
- SOC 20 ETHNIC AND MINORITY GROUP RELATIONS 3 Units
- SOC 30 SOCIAL PSYCHOLOGY 3 Units OR
- PSYC 30 SOCIAL PSYCHOLOGY 3 Units

List B: Select one not already used in List A or from the following (3 units)

- SOC 3 GLOBAL SOCIOLOGY: CHANGE IN THE MODERN WORLD SYSTEM 3 Units
- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units OR
- HD 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units


## Total Units Required: 18

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Sociology, AA

Complete the following courses:

- SOC 1 INTRODUCTION TO SOCIOLOGY 3 Units
or
- SOC 1H INTRODUCTION TO SOCIOLOGY HONORS 3 Units
- SOC 2 SOCIAL PROBLEMS 3 Units
- SOC 10 INTRODUCTION TO MARRIAGE AND FAMILY 3 Units
- SOC 20 ETHNIC AND MINORITY GROUP RELATIONS 3 Units
- ANTH 2 CULTURAL ANTHROPOLOGY 3 Units
or
- ANTH 2H CULTURAL ANTHROPOLOGY HONORS 3 Units


## Total Units Required: 21

## Recommended Electives:

- SOC 15 SOCIALIZATION OF THE CHILD - CHILD, FAMILY, COMMUNITY 3 Units
- SOC 19 THE SOCIOLOGY OF SEX AND GENDER 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Sustainability and Resource Management

Dean: Traci Fahimi<br>Faculty Coordinator: Jodi Titus

## Courses

Sustainability and resource management is among the largest and most rapidly growing industries in America. As more cities and businesses develop sustainability and zero waste policies, the need increases for personnel who can properly manage resource use and recycling. Utilizing resources efficiently can enable businesses to increase their economic bottom line, improve community relations, and contribute to environmental health.

The sustainability and resource management curriculum emphasizes an interdisciplinary approach, exploring recycling and resource management from a variety of perspectives and in a variety of settings. Core curriculum will provide students with an in-depth study of waste and resource management, emphasizing cultural, community, and business applications. Courses cover governmental and organizational policies, practices, and procedures in waste resource management, including best management practices and successful community and educational programs.

## Program Student Learning Outcomes

Upon completion of the sustainability and resource management program, students will be able to

- Demonstrate a comprehensive perspective on the role that recycling and waste diversion plays in solving economic and environmental issues.
- Identify employment resources across multiple industry sectors related to recycling and resource management.
- Successfully integrate recycling and resource management strategies.
- Understand that global culture, economics and sustainability are part of managing resources.
- Promote programs through community-based social marketing.
- Apply social marketing and resource management strategies in business and community plans.
- Write zero waste business and community plans from goals to implementation.
- Have the environmental and science background to initiate these new directions.


## Potential Careers

Sustainability and resource management jobs can be found in a growing number of sectors, including government agencies, manufacturing firms, nonprofit organizations, recycling companies, hauling companies, re-use businesses, grocery store chains, colleges and universities, healthcare industries, property management, consulting agencies, marketing firms, and restaurants. Examples of careers in sustainability and resource management include the following:

- Green Procurement Specialist
- Marketing and Sales Associate
- Materials Handler
- Recycling Coordinator
- Waste Auditor
- Sustainability Events Coordinator
- Sustainability Specialist


## Recycling and Resource Management, COA

The recycling and resource management certificate program is designed to provide students with the skills and knowledge necessary to obtain employment or advancement in sustainable resource management or a zero waste-related field. Course
requirements are designed to provide students with a holistic perspective on the relationship of recycling and zero waste to a changing global economy and climate.

Complete the following courses:

## Complete at least one of the following courses:

- ECON 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units OR
- ENV 6 ENVIRONMENTAL AND RESOURCE ECONOMICS 3 Units
- GEOG 20 GLOBAL ENVIRONMENTAL PROBLEMS 3 Units

Complete the following:

- SRM 168 COOPERATIVE WORK EXPERIENCE: SUSTAINABILITY AND RESOURCE MANAGEMENT 1 Unit or
- SRM 168 COOPERATIVE WORK EXPERIENCE: SUSTAINABILITY AND RESOURCE MANAGEMENT 2 Units
or
- SRM 168 COOPERATIVE WORK EXPERIENCE: SUSTAINABILITY AND RESOURCE MANAGEMENT 3 Units


## Total Units Required: 18

To earn the certificate of achievement:

See Earning a Certificate for certificate information and requirements.

## Sustainability and Resource Management, COP

This certificate is intended to prepare students for entry-level positions in sustainability and resource management or job advancement within that field. Courses will focus on presenting skills and knowledge needed to prepare students for a wide range of work opportunities in the industry.

## Complete the following courses:

- SRM 80 INTRODUCTION TO THE PRINCIPLES OF SUSTAINABILITY 3 Units
- SRM 85 SOCIETY AND SUSTAINABILITY 3 Units
- SRM 90 SUSTAINABLE PRACTICES AND RESOURCE MANAGEMENT FOR COMMUNITIES 3 Units

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Theatre Arts

Dean: Joseph Poshek<br>Academic Chair: M. Scott Grabau<br>Faculty: Ron Manuel-Ellison; M. Scott Grabau<br>Costume Designer: Nancy Bracken<br>Production Manager: Patric Taylor<br>Operations Manager: Cecil Armstrong

## Courses

The theatre curriculum at Irvine Valley includes courses in acting, directing, theatre production and theatre design. Theatre students are encouraged to participate in a variety of theatrical performances, among them dramas, comedies and musical theatre. The Department of Theatre emphasizes the development of the many and various skills required in the theatre-including stagecraft, lighting, costuming, and production. The curriculum also includes courses in theatre appreciation, voice and diction, and musical theater.

## Major

Students majoring in theatre arts concentrate on developing the expressive, interpretive, artistic and practical skills fundamental to the production of various types of dramatic literature. Students who wish to complete an Associate in Arts degree in theatre may select one of the following four options to fulfill the major requirement: (1) Theatre Arts, (2) Acting, (3) Technical Theatre, or (4) Theatre Arts for Transfer.

## Program Student Learning Outcomes

Upon completion of the theatre arts, acting, or technical theatre program, students will be able to do one of the following:

- Perform a role in a theatrical production.
- Construct theatrical elements.
- Manage a theatrical production.
- Apply fundamentals of theatrical design.


## Potential Careers (For Non-Transfer Degree Recipients)

Theatre Arts majors develop an ability to project and present themselves before audiences in formal performances. Thus the major is appropriate both for students who are anticipating careers in acting, directing or theatre production, and for those who may choose careers with a high profile such as law, teaching, sales or management.

## Acting, AA

## Complete the following courses:

- TA 1 ACTING 3 Units
- TA 2 BEGINNING SCENE STUDY 3 Units

Complete one of the following courses:

- TA 3 ADVANCED SCENE STUDY 3 Units
- TA 4 ACTING STYLES: CLASSICAL 3 Units
- TA 5 ACTING STYLES: CONTEMPORARY 3 Units

Complete one of the following courses:

- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 25 GREAT PLAYS: PRIMITIVE TO RENAISSANCE 3 Units
- TA 26 GREAT PLAYS: RENAISSANCE TO CONTEMPORARY 3 Units

Complete 3 units from the following courses:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 241A IRVINE VALLEY CONSERVATORY 6 Units
- TA 241B IRVINE VALLEY CONSERVATORY 3 Units
- TA 241C IRVINE VALLEY CONSERVATORY 1 Unit

Complete 3 units from the following courses:

- TA 40 INTRODUCTION TO THEATRE DESIGN 3 Units
- TA 40C SCENIC DESIGN FOR THE THEATRE
- TA 41 STAGE LIGHTING DESIGN 3 Units
- TA 42 COSTUME DESIGN 3 Units


## Total Units Required: 18

## Recommended Electives:

- TA 4 ACTING STYLES: CLASSICAL 3 Units
- TA 5 ACTING STYLES: CONTEMPORARY 3 Units
- TA 8 ADVANCED ACTING 3 Units
- TA 10 MUSICAL THEATRE WORKSHOP 3 Units
- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Assistant Stage Manager, COP

This Certificate of Proficiency is for students looking to acquire the basic skills necessary to begin a career as a stage manager in the broad-based field of live entertainment. Students learn the fundamentals of rehearsal procedures, union contracts, production organization, and performance procedures. In addition, students who gain experience by participating in live productions at IVC's Performing Arts Center. The program includes placement in an internship with local live entertainment companies. Students completing this certificate can pursue work as stage managers, assistant stage managers, and production assistants with employers such as regional theaters, theme parks, convention centers, concert producers, opera companies, dance companies, cruise ships, and cirque troupes.

## Complete the following courses:

- TA 48C ADVANCED STAGE MANAGEMENT 1 Unit
- TA 168 COOPERATIVE WORK EXPERIENCE: LIVE ENTERTAINMENT 1 Unit

Complete one course from each of the following specializations:

## Acting and Directing:

- TA 1 ACTING 3 Units
- TA 10 MUSICAL THEATRE WORKSHOP 3 Units
- TA 12 DIRECTING 3 Units


## Theatre Design:

- TA 40 INTRODUCTION TO THEATRE DESIGN 3 Units


## Theatre Production:

## Total Units Required: 13-15

To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Live Entertainment Technician, COP

The Certificate of Proficiency is for students looking to acquire the basic skills necessary to begin a career in the broad-based field of live entertainment. Students learn the fundamentals of stage lighting, scenery construction, sound reinforcement, and rigging. In addition, students gain experience in rehearsal and performance procedures by participating in live productions at IVC's Performing Arts Center. The program includes placement in an internship with local live entertainment companies.
Students completing this certificate can pursue work as an entertainment technician with employers such as regional theaters, theme parks, convention centers, concert producers, opera companies, dance companies, cruise ships and cirque troupes.

Complete the following courses:

- TA 41 STAGE LIGHTING DESIGN 3 Units
- TA 44 STAGECRAFT 3 Units
- TA 47 SOUND REINFORCEMENT FOR LIVE ENTERTAINMENT 3 Units
- TA 168 COOPERATIVE WORK EXPERIENCE: LIVE ENTERTAINMENT 1 Unit

Complete one course from the following:
Complete one course from the following:
Total Units Required: 12-14
To earn the certificate of proficiency:

See Earning a Certificate for certificate information and requirements.

## Technical Theatre, AA

## Complete this course:

- TA 1 ACTING 3 Units

Complete one of the following courses:

- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 25 GREAT PLAYS: PRIMITIVE TO RENAISSANCE 3 Units
- TA 26 GREAT PLAYS: RENAISSANCE TO CONTEMPORARY 3 Units

Complete 3 units from the following courses:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 241A IRVINE VALLEY CONSERVATORY 6 Units
- TA 241B IRVINE VALLEY CONSERVATORY 3 Units
- TA 241C IRVINE VALLEY CONSERVATORY 1 Unit

Complete 9 units from the following courses:

- TA 40 INTRODUCTION TO THEATRE DESIGN 3 Units
- TA 40C SCENIC DESIGN FOR THE THEATRE
- TA 41 STAGE LIGHTING DESIGN 3 Units
- TA 42 COSTUME DESIGN 3 Units

Total Units Required: 18

## Recommended Electives:

- TA 10 MUSICAL THEATRE WORKSHOP 3 Units
- TA 12 DIRECTING 3 Units
- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units

To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.

## Theatre Arts for Transfer, AA-T

Complete the required core:
Introduction to Theatre or Theatre History I (3 units)

Complete one of the following courses:

- TA 22 INTRODUCTION TO THEATER 3 Units
- TA 25 GREAT PLAYS: PRIMITIVE TO RENAISSANCE 3 Units or
- TA 25H GREAT PLAYS: PRIMITIVE TO RENAISSANCE HONORS 3 Units


## Acting (3 units)

## Complete the following course:

- TA 1 ACTING 3 Units
- TA 2 BEGINNING SCENE STUDY 3 Units

Rehearsal and Performance (3 units maximum) or Technical Theatre Practicum (3 units maximum)

## Complete 3 units from the following courses:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 48C ADVANCED STAGE MANAGEMENT 1 Unit


## Select 9 units from the following courses:

- TA 8 ADVANCED ACTING 3 Units
- TA 40 INTRODUCTION TO THEATRE DESIGN 3 Units
- TA 41 STAGE LIGHTING DESIGN 3 Units
- TA 42 COSTUME DESIGN 3 Units
- TA 44 STAGECRAFT 3 Units
- TA 49 STAGE MAKEUP DESIGN 3 Units

If not taken to meet earlier degree requirements, the following courses may contribute up to 3 units toward the above 9 -unit requirement:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 48C ADVANCED STAGE MANAGEMENT 1 Unit

Total Units Required: 18

To earn the associate for transfer degree:

See Earning an Associate Degree for associate degree for transfer graduation requirements.

## Theatre Arts, AA

## First Semester

Complete the following courses:

- TA 1 ACTING 3 Units
- TA 10 MUSICAL THEATRE WORKSHOP 3 Units
- TA 35 VOICE AND DICTION 3 Units

Complete one of the following courses:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit


## Second Semester

Complete the following courses:

- TA 2 BEGINNING SCENE STUDY 3 Units

Complete one course:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit


## Third Semester

Complete the following courses:

- TA 3 ADVANCED SCENE STUDY 3 Units

Complete one course:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit

Complete one of the following courses:

- TA 20 THEATRE APPRECIATION-CLASSICAL OVERVIEW 3 Units
- TA 21 THEATRE APPRECIATION-CONTEMPORARY 3 Units
- TA 25 GREAT PLAYS: PRIMITIVE TO RENAISSANCE 3 Units
- TA 26 GREAT PLAYS: RENAISSANCE TO CONTEMPORARY 3 Units

Complete one of the following courses:

- TA 40 INTRODUCTION TO THEATRE DESIGN 3 Units
- TA 40C SCENIC DESIGN FOR THE THEATRE
- TA 41 STAGE LIGHTING DESIGN 3 Units


## Fourth Semester

Complete the following courses:

- TA 43 Stage Makeup

Complete one course:

- TA 15 REHEARSAL AND PERFORMANCE: DRAMA 2 Units
- TA 15A INTRODUCTION TO REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 15B CONTINUATION OF REHEARSAL AND PERFORMANCE: DRAMA 1 Unit
- TA 16 REHEARSAL AND PERFORMANCE: COMEDY 2 Units
- TA 16A INTRODUCTION TO REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 16B CONTINUATION OF REHEARSAL AND PERFORMANCE: COMEDY 1 Unit
- TA 17 REHEARSAL AND PERFORMANCE: MIXED GENRES 2 Units
- TA 17A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 17B CONTINUATION OF REHEARSAL AND PERFORMANCE: MIXED GENRES 1 Unit
- TA 18 REHEARSAL AND PERFORMANCE-DANCE 2 Units
- TA 18A INTRODUCTION TO REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 18B CONTINUATION OF REHEARSAL AND PERFORMANCE-DANCE 1 Unit
- TA 19 REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 2 Units
- TA 19A INTRODUCTION TO REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit
- TA 19B CONTINUATION OF REHEARSAL AND PERFORMANCE: MUSICAL THEATRE 1 Unit


## Total Units Required: 25-31

Recommended Electives:

- TA 4 ACTING STYLES: CLASSICAL 3 Units
- TA 5 ACTING STYLES: CONTEMPORARY 3 Units
- TA 8 ADVANCED ACTING 3 Units
- TA 9 MUSICAL REVUE 1 Unit


## To earn the associate degree:

See Earning an Associate Degree for associate degree graduation requirements.

## To transfer:

Courses required for the associate degree major at IVC may not be the same as those required for the major at a four-year school. If you plan to transfer, consult a counselor to identify the courses needed for the major at your transfer school and to develop a plan that will best meet your goals. View more information about transfering at Transfer to a Four-Year Institution.


[^0]:    Dean: Joseph Poshek
    Academic Chair, Visual Arts: Julie Kirk
    Faculty: Joseph Gerges; Julie Kirk

[^1]:    $\dagger$ Students who have completed equivalent courses or who have acquired fluency may substitute a second foreign language.

