



**ASSOCIATE DEGREE AND  
CERTIFICATE OF ACHIEVEMENT  
PROGRAMS**

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# ADMINISTRATION OF JUSTICE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

### DESCRIPTION

The Administration of Justice Program involves the study of the theory and practice of law enforcement, police work, and the court and corrections systems. These core and elective courses provide the student with a base of knowledge and proficiency in the general area. Law enforcement, whether as a line officer, deputy sheriff, marshal or state traffic officer, offers a rewarding opportunity to serve society. Specialized officers such as game wardens, forest rangers or criminal investigators make unique contributions throughout our state and nation. They investigate crime, present cases in court and render other service to the justice system and the people. Much of their job now consists of actively serving the many social needs of their community.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge and understanding of the U.S. Constitution and the subsequent Amendments pertaining to the Justice System.
2. Demonstrate knowledge and understanding of the Criminal Justice System to include investigation of crimes, prosecution of offenders in court and incarceration of convicted perpetrators in the Correctional System.
3. Demonstrate knowledge and understanding of the principles of a law enforcement report, in particular those elements of the Corpus (body) of the criminal act, the proper documentation of Witness Statements and Evidence.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities. Some positions however require a four-year degree for which IVC's program is a good base for transfer.

- Police Officer
- Industrial Security Officer
- Deputy Sheriff
- Evidence Technician
- Animal Control
- Computer
- Forensics
- Highway Patrol Officer
- Alcoholism Counselor
- Police Clerk
- FBI Agent
- Accident Investigator
- Polygraph Operator
- Forest Ranger
- Customs Agent
- Investigator Trainer
- Drug Enforcement
- Insurance Investigator
- Code Enforcement
- Border Patrol Agent
- Criminal Investigator
- Legal Secretary
- Fingerprint Classifier
- Store Detective
- Security Specialist
- Matron
- Police Dispatcher
- Warden
- Park Ranger
- Correctional Counselor
- Law
- Paralegal
- Probation Officer
- Parole Agent
- Counselor
- Private Detective
- Jailer
- Officer Agent Drug Abuse
- Corrections Officer

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# ADMINISTRATION OF JUSTICE

## ASSOCIATE DEGREE PROGRAM

### ADMINISTRATION OF JUSTICE - A.S. DEGREE

Twenty-four (24.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.0 units)

AJ	100	Introduction to Administration of Justice	3.0
AJ	102	Concepts of Criminal Law	3.0
AJ	104	Legal Aspects of Evidence	3.0
AJ	106	Principles and Procedures of the Justice System	3.0
AJ	108	Public Safety Report Writing (Formerly AJ 120)	3.0
AJ	110	Law Enforcement Community Relations	3.0

#### II. Acceptable courses for the major (Select a minimum of 6.0 units)

AJ	121	Law Enforcement Field Operations (3.0)	
AJ	141	Arrest and Firearms (3.5)	
AJ	222	Criminal Investigation (Formerly AJ 122) (3.0)	
AJ	223	Juvenile Control (Formerly AJ 123) (3.0)	
AJ/SOC	224	Criminology (Formerly AJ 124) (3.0)	
CSI	100	Introduction to Corrections (3.0)	
CSI	104	Concepts of Probation and Parole (3.0)	

**Total Major Units**

**24.0**

## CERTIFICATE PROGRAM

### ADMINISTRATION OF JUSTICE CERTIFICATE

Twenty-two (22.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (22.0)

AJ	100	Introduction to Administration of Justice	3.0
AJ	102	Concepts of Criminal Law	3.0
AJ	104	Legal Aspects of Evidence	3.0
AJ	106	Principles and Procedures of the Justice System	3.0
AJ	110	Law Enforcement Community Relations	3.0
AJ	223	Juvenile Control	3.0
ENGL	110	Composition and Reading	4.0

**Total Certificate Units**

**22.0**

# ADMINISTRATION OF JUSTICE (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree in Administration of Justice for Transfer (AS-T)

### DESCRIPTION

Administration of Justice involves the study of the theory and practice of law enforcement, police work, the courts and corrections systems. The core and elective courses provide the student with a base of knowledge and proficiency in the multidisciplinary examinations of crime, crime control, the justice process, and justice institutions. The discipline addresses definitions, causation, prevention, investigation, legal process, treatment, rehabilitation, and research relating to crime and justice as well as the institutions of the justice system and their administration.

The Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge and understanding of the U.S. Constitution and the subsequent Amendments pertaining to the Justice System.
2. Demonstrate knowledge and understanding of the Criminal Justice System to include investigation of crimes, prosecution of offenders in court and incarceration of convicted perpetrators in the Correctional System.
3. Demonstrate knowledge and understanding of the principles of a law enforcement report, in particular those elements of the Corpus (body) of the criminal act, the proper documentation of Witness Statements and Evidence.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities. Some positions however require a four-year degree for which IVC's program is a good base for transfer.

- Police Officer
- Industrial Security Officer
- Deputy Sheriff
- Evidence Technician
- Animal Control
- Computer
- Forensics
- Highway Patrol Officer
- Alcoholism Counselor
- Police Clerk
- FBI Agent
- Accident Investigator
- Polygraph Operator
- Forest Ranger
- Customs Agent
- Investigator Trainer
- Drug Enforcement
- Insurance Investigator
- Code Enforcement
- Border Patrol Agent
- Criminal Investigator
- Legal Secretary
- Fingerprint Classifier
- Store Detective
- Security Specialist
- Matron
- Police Dispatcher
- Warden
- Park Ranger
- Correctional Counselor
- Law
- Paralegal
- Probation Officer
- Parole Agent
- Counselor
- Private Detective
- Jailer
- Officer Agent Drug Abuse
- Corrections Officer

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# ADMINISTRATION OF JUSTICE (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### ADMINISTRATION OF JUSTICE

Associate in Science Degree in Administration of Justice for Transfer (AS-T) – 18.0-19.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Eighteen to Nineteen (18-19) units required for the major**
  - A. **Required for the Major (6) units**

AJ	100	Introduction to the Administration of Justice	3.0
AJ	102	Concepts of Criminal Law	3.0
<b>B. Select six (6) units from:</b>			6.0
AJ	104	Legal Aspects of Evidence (3.0)	
AJ	106	Principles & Procedures of the Justice System (3.0)	
AJ	110	Law Enforcement Community Relations (3.0)	
AJ	222	Criminal Investigation (3.0)	
AJ	223	Juvenile Control (3.0)	
CSI	100	Introduction to Correctional Systems (3.0)	
<b>C. Select six to seven (6.0-7.0) units from</b>			6.0-7.0
MATH	119	Elementary Statistics (4.0)	
PSY	101	Introduction to Psychology (3.0)	
SOC	101	Introduction to Sociology (3.0)	

Total Major Units	18.0-19.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	60.0
<b>Total Maximum Units:</b>	<b>60.0</b>

# AGRICULTURE BUSINESS (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree in Agriculture Business for Transfer (AS-T)

### DESCRIPTION

The Associate in Science in Agriculture Business for Transfer Degree provides for the application of business concepts to the agricultural industry and emphasizes training in management for careers in agriculture. Advanced degrees and/or professional certificates, such as a baccalaureate degree, are required for those jobs or careers such as management and operations of farms, management of firms that supply the services to farms, and processing, marketing, distribution, and sales of farm products.

The Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate understanding of market trends and influential factors, display critical thinking skills related to production and marketing development, data interpretation as applied to the decision making process related to commercial production and commodity sales.
2. Display competency with respect to the use of standard lab, industry equipment and techniques used in production.
3. Demonstrate understanding of scientific research and critical thinking skills related to hypothesis development and data interpretation as applied to the decision making process for commercial production.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

For job seekers, it is probably the most readily available entry-level position in the agriculture industry. Numerous specialized companies throughout California require qualified persons for marketing, sales, finance, policy, government, farm ranch management, and international trade and development. For job entry and advancement, however, certain basic skills remain fundamental. These include proficiency in computers, record keeping, finance, management and marketing.

- Accountant
- Appraiser
- Bookkeeper
- Business Manager
- Business Owner
- Commodity Broker
- Community Development
- Consultant
- Elevator Management
- Farm Management/Operations
- Equipment Dealer
- Farm and Ranch Manager
- Farmland Portfolio Analysis
- Farm/Estate Sales
- Insurance Agent
- Land Appraiser
- Lending/Finance
- Livestock Buyer
- Loan Officer
- Grain Merchandising/Commodities
- Management Specialist
- Marketing/Public Relations
- Policy/International Trade
- Production/Management
- Trainee
- Produce Buyer
- Public Relations
- Retail Sales
- Sales Representative

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# AGRICULTURE BUSINESS (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### AGRICULTURE BUSINESS

Associate in Science Degree in Agriculture Business for Transfer (AS-T) – 22.0-30.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Twenty-two to Thirty (22-30) units required for the major**

#### Required for the Major (13-14 units)

AG	120	Soil Science	3.0
OR			
CHEM	100	Introduction to Chemistry	4.0
AG	130	Agricultural Economics	3.0
ECON	102	Introduction to Macro Economics	3.0
MATH	119	Elementary Statistics	4.0

#### List A: Select three courses (9-10 units): 9.0-10.0

AG	134	Agricultural Business Organization (3.0)
AG	136	Agricultural Sales, Communication, and Service Management (3.0)
AG	138	Computer Applications in Agriculture (3.0)
AG	140	Principles of Plant Science (4.0)

#### List B: Select (0-6 units) 0.0-6.0

Any course not selected from List A above		
AG	220	Irrigation and Drainage (3.0)
AG	230	Fertilizer and Soil Amendments (3.0)

Total Major Units	22.0-30.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>



# AGRICULTURE BUSINESS MANAGEMENT

## DEGREES, CERTIFICATES AND AWARDS

### Certificate of Achievement

#### DESCRIPTION

Agriculture Business Management is the application of business concepts and economic principles involved in the organization, operation, and management of agricultural enterprises. Careers may include the management and operations of farms; management of firms that supply or service farm related operations; and management of industries engaged in processing, marketing, distribution, and sales of farm products.

#### PROGRAM LEARNING OUTCOMES

1. Demonstrate understanding of market trends and influential factors, display critical thinking skills related to production and marketing development, data interpretation as applied to the decision making process related to commercial production and commodity sales.
2. Display competency with respect to the use of standard lab, industry equipment and techniques used in production.
3. Demonstrate understanding of scientific research and critical thinking skills related to hypothesis development and data interpretation as applied to the decision making process for commercial production.

#### CERTIFICATE OF ACHIEVEMENT PROGRAMS

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

#### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

For job seekers, it is probably the most readily available entry-level position in the agriculture industry. Numerous specialized companies throughout California require qualified persons for marketing, sales, finance, policy, government, farm ranch management, and international trade and development. For job entry and advancement, however, certain basic skills remain fundamental. These include proficiency in computers, record keeping, finance, management and marketing.

- Accountant
- Appraiser
- Bookkeeper
- Business Manager
- Business Owner
- Commodity Broker
- Community Development
- Consultant
- Elevator Management
- Farm Management/Operations
- Equipment Dealer
- Farm and Ranch Manager
- Farmland Portfolio Analysis
- Farm/Estate Sales
- Insurance Agent
- Land Appraiser
- Lending/Finance
- Livestock Buyer
- Loan Officer
- Grain Merchandising/Commodities
- Management Specialist
- Marketing/Public Relations
- Policy/International Trade
- Production/Management
- Trainee
- Produce Buyer
- Public Relations
- Retail Sales
- Sales Representative

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#### FINANCIAL AID

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# AGRICULTURE BUSINESS MANAGEMENT

## CERTIFICATE PROGRAM

### AGRICULTURE BUSINESS MANAGEMENT

Eighteen to Nineteen (18.0-19.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (15.0)

AG	120	Soil Science	3.0
AG	130	Agricultural Economics	3.0
AG	134	Agricultural Business Organization	3.0
AG	136	Agricultural Sales, Communication, and Service Management	3.0
ECON	102	Introduction to Macro Economics	3.0

#### II. Acceptable courses for the certificate (select one)

AG	138	Computer Applications in Agriculture (3.0)
AG	140	Principles of Plant Science (4.0)

**Total Certificate Units**

**18.0-19.0**

# AGRICULTURAL CROP SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

### Certificate of Achievement

#### DESCRIPTION

The Certificate of Achievement in Agricultural Crop Science for those students interested in a more general course of study. This certificate deals with the application of the various principles of the biological and physical sciences in agriculture. The course offerings are fundamental and broad in scope so that students can seek employment in one of the hundreds of career opportunities in the agriculture field.

#### PROGRAM LEARNING OUTCOMES

1. Demonstrate an understanding of fundamental concepts and knowledge related to the selection, propagation and management of various plant commodities produced for food, feed and fiber.
2. Display competency with respect to the use of standard lab, industry equipment and techniques used in production.
3. Demonstrate understanding of scientific research and critical thinking skills related to hypothesis development and data interpretation as applied to the decision making process for commercial production.

#### CERTIFICATE OF ACHIEVEMENT PROGRAMS

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

#### CAREER OPPORTUNITIES

California is one of the top states in the nation in annual gross agricultural returns. The livestock industry and over 250 specialty crops provide a variety of career choices. Trained personnel are employed on ranches and farms, as well as the vast agriculture service industry. Career opportunities also exist with governmental agencies. Every year there are several openings in Agriculture Education in California as well as other states. Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Agribusiness Representative
- Agricultural Products Inspector
- Agronomist
- Chemical Fertilizer Sales
- College Instructor
- Cooperative Extension Agent
- Cooperative Manager
- Crop Consultant
- Crop Production
- Agronomic Production Manager
- County Agricultural Extension Agents
- Plant Geneticist Post secondary Teacher
- Soil Surveyor Vocational Agriculture Teacher
- Crop Scout/Consultant
- Education Specialist
- Farm Manager
- Farming Operation
- 4-H Association Youth Specialist
- Genetic Engineering Scientist
- International Agronomist
- Land Reclamation Specialist
- Land-Use Planner
- Conservation/Environmental Technician
- High School Agriculture Teacher
- Seed, Chemical and Fertilizer Consultant
- Organic Certification Specialist
- Plant Breeder
- Research Technician
- Sales Representative
- Seed Production
- Soil Conservation Specialist
- Youth Development Specialist
- Waste Management Specialist
- Water Quality Specialist

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#### TRANSFER PREPARATION

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

#### FINANCIAL AID

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# AGRICULTURAL CROP SCIENCE

## CERTIFICATE PROGRAM

### AGRICULTURAL CROP SCIENCE

Twenty-seven (27.0) units required for the certificate.

Agricultural Crop Sciences encompasses the study of the plant, soil, and water resources that are foundational to all agro-ecosystems. The crop sciences field can prepare you for a challenging career in many areas including: soil and crop management, plant breeding and genetics, seed science, environmental soil science, soil restoration and conservation, international agriculture, and ecosystem management.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (24.0)

AG	080	Pesticide Safety	1.0
AG	120	Soil Science	3.0
AG	140	Principles of Plant Science	4.0
AG	170	Principles of Entomology	3.0
AG	230	Fertilizers & Soil Amendments	3.0
AG	240	Field and Cereal Crops	4.0
AG	250	Vegetable Crop Production	3.0
AG	270	Weeds and Weed Control	3.0

#### II. Acceptable courses for the certificate (select a minimum of 3 units)

AG	138	Computer Applications in Agriculture (3.0)	
AG	160	Food & Fiber in a Changing World (3.0)	
AG	220	Irrigation and Drainage (3.0)	
AG	260	Plant Protection and Integrated Pest Management (3.0)	

**Total Certificate Units:**

**27.0**

# AGRICULTURAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

The Agricultural Science program offers an Associate of Science degree in Agricultural Science. The IVC major deals with the application of the various principles of the biological and physical sciences in agriculture. The course offerings are fundamental and broad in scope so that students can prepare for transfer or seek employment in one of the hundreds of career opportunities in the agriculture field.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate an understanding of fundamental concepts and knowledge related to the selection, propagation and management of various plant commodities produced for food, feed and fiber.
2. Display competency with respect to the use of standard lab, industry equipment and techniques used in production.
3. Demonstrate understanding of scientific research and critical thinking skills related to hypothesis development and data interpretation as applied to the decision making process for commercial production.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

The Associate in Arts (AA) or the Associate in Science (AS) Degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### CAREER OPPORTUNITIES

California is one of the top states in the nation in annual gross agricultural returns. The livestock industry and over 250 specialty crops provide a variety of career choices. Trained personnel are employed on ranches and farms, as well as the vast agriculture service industry. Career opportunities also exist with governmental agencies. Every year there are several openings in Agriculture Education in California as well as other states. Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Agribusiness Representative
- Agricultural Products Inspector
- Agronomist
- Chemical Fertilizer Sales
- College Instructor
- Cooperative Extension Agent
- Cooperative Manager
- Crop Consultant
- Crop Production
- Agronomic Production Manager
- County Agricultural Extension Agents
- Plant Geneticist Post secondary Teacher
- Soil Surveyor Vocational Agriculture Teacher
- Crop Scout/Consultant
- Education Specialist
- Farm Manager
- Farming Operation
- 4-H Association Youth Specialist
- Genetic Engineering Scientist
- International Agronomist
- Land Reclamation Specialist
- Land-Use Planner
- Conservation/Environmental Technician
- High School Agriculture Teacher
- Seed, Chemical and Fertilizer Consultant
- Organic Certification Specialist
- Plant Breeder
- Research Technician
- Sales Representative
- Seed Production
- Soil Conservation Specialist
- Youth Development Specialist
- Waste Management Specialist
- Water Quality Specialist

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### TRANSFER PREPARATION

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#### Transfer Resources:

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# AGRICULTURAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### AGRICULTURAL SCIENCE – A.S. DEGREE

Twenty-six (26.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the major (14.0 units)

AG	120	Soil Science	3.0
AG	140	Principles of Plant Science	4.0
AG	170	Principles of Entomology	3.0
CHEM	100	Introduction to Chemistry	4.0

#### II. Acceptable Courses (select a minimum of 12.0 units)

**12.0**

AG	080	Pesticide Safety (1.0)	
AG	138	Computer Applications in Agriculture (3.0)	
AG	142	Introduction to Biofuel Input and Production (3.0)	
AG	160	Food and Fiber in a Changing World (3.0)	
AG	220	Irrigation and Drainage (3.0)	
AG	230	Fertilizers and Soil Amendments (3.0)	
AG	240	Field and Cereal Crops (4.0)	
AG	250	Vegetable Crop Production (3.0)	
AG	260	Plant Protection and Integrated Pest Management (3.0)	
AG	270	Weeds and Weed Control (3.0)	
CIS	101	Introduction to Information Systems (3.0)	

**Total Major Units**

**26.0**

# AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

## DESCRIPTION

Air Conditioning and Refrigeration Technology (ACR) is a constantly changing, self gratifying program designed to satisfy the mechanically oriented person. The Air Conditioning and Refrigeration major and certificate are designed to provide instruction in manipulative skills, technical knowledge, and related trade information which will prepare the student with entry level skills for employment in the rapidly growing service industry of Air Conditioning and Refrigeration.



## PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of OSHA safety practices required for repair and installation of air conditioning and refrigerant equipment.
2. Demonstrate and understand practical and manipulative skills relates to HVAC/R industry.
3. Demonstrate competency and mastery of the body-of-knowledge in employee responsibilities within the HVAC/R industry.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Some of these careers may require education beyond the two year college level.

- ACR Contractor
- ACR Mechanic
- ACR Installer
- ACR and Heating Engineer
- Dispatcher
- Electrician
- Manufacturers Service Rep
- Sales Engineer
- Service Manager
- Service Technician
- Sheet Metal Technician

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## TRANSFER PREPARATION

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<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

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# AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### AIR CONDITIONING AND REFRIGERATION TECHNOLOGY MAJOR – A.S. DEGREE

Thirty (30.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Thirty (30.0) units required for the major.

ACR	101	Air Conditioning and Refrigeration Systems	3.0
ACR	102	Residential Air Conditioning Systems	3.0
ACR	103	Air Conditioning Electrical Circuits and Controls	3.0
ACR	104	Air Conditioning Heating Systems	3.0
ACR	105	Heat Load Calculation and Measurements	2.0
ACR	106	Air Conditioning Ventilation Duct Systems	3.0
BLDC	130	Carpentry Layout and Framing	4.0
EWIR	110	Electrical Principles	4.0
WELD	100	Welding Technology	5.0

**Total Major Units**

**30.0**

## CERTIFICATE PROGRAM

### AIR CONDITIONING AND REFRIGERATION TECHNOLOGY CERTIFICATE

Seventeen (17.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Seventeen (17.0) units required for the certificate.

ACR	101	Air Conditioning & Refrigeration Systems	3.0
ACR	102	Residential Air Conditioning Systems	3.0
ACR	103	Air Conditioning Electrical Circuits and Controls	3.0
ACR	104	Air Condition Heating Systems	3.0
ACR	105	Heat Load Calculation and Measurements	2.0
ACR	106	Air Conditioning Ventilation Duct Systems	3.0

**Total Certificate Units**

**17.0**



# ALCOHOL AND DRUG STUDIES

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

## DESCRIPTION

The Alcohol and Drug Studies program is designed to prepare students to serve as professionals in the growing career field of chemical and behavioral addiction counseling. Imperial Valley College is an accredited CAADE (California Association for Alcohol/Drug Educators) program. The Alcohol and Drug Studies major and certificate meet state requirements. Students completing these programs can take the CATC examination and obtain the California Addiction Treatment Counselor Credential. This credential will help students obtain jobs in social service agencies, treatment programs, recovery homes, schools, DEA, and law enforcement. This program prepares students for transfer to institutions providing higher degrees with the social service majors.

## PROGRAM LEARNING OUTCOMES

1. Demonstrate understanding of the physical and psychological disease of addiction.
2. Demonstrate an understanding of counseling theory used in addiction counseling.
3. Demonstrate critical thinking and skills to intervene with an addict and the codependent family.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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## CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Alcohol/Drug Studies Advisor
- Drug Abuse Counselor
- Health Education Instructor
- Community College Instructor
- Alcohol/Drug Studies Technician
- Outpatient Program Staff Member
- Marriage and Family Therapists
- Mental Health Counselor
- Psychologists
- Registered Nurses
- Social Workers
- Recovery Center Staff Member/Director
- Substance Abuse and Behavioral Counselors
- Teacher – All Levels
- Occupational Therapists
- Physicians/Surgeons
- Rehabilitation Counselors

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# ALCOHOL AND DRUG STUDIES

## ASSOCIATE DEGREE PROGRAM

### ALCOHOL AND DRUG STUDIES MAJOR – A.S. DEGREE

Thirty-six (36.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required for the major (27.0 units)

ADS	101	Alcoholism: Intervention, Treatment, and Recovery	3.0
ADS	110	Physiological Effects of Alcohol and Drugs	3.0
ADS/PSY	120	Introduction to Counseling	3.0
ADS/PSY	130	Group Leadership and Group Process	3.0
ADS	200	Family counseling Approaches to Alcohol and Drug Abuse	3.0
ADS/PSY	210	Crisis Intervention and Referral Techniques	3.0
ADS/PSY	220	Practicum	3.0
ADS/PSY	221	Practicum	3.0
ADS	240	Ethics and Legal Standards in Alcohol Counseling	3.0

#### II. Minimum of nine (9.0) units selected from:

ADS/SOC	150	Sociology of Minority Groups (3.0)	9.0
ADS	176	Sex and Gambling Addiction (1.0)	
ADS	177	Anger Management (1.0)	
ADS	178	Life Skills (1.0)	
ADS	230	Alcohol and Drug Prevention and Education (3.0)	
PSY	101	Introduction to Psychology (3.0)	
PSY	144	The Psychology of Interpersonal Relationships (3.0)	
PSY	204	Developmental Psychology: Conception to Death (3.0)	
PSY	208	Abnormal Psychology (3.0)	
SW	220	Introduction to Social Work (3.0)	
SOC	101	Introduction to Sociology (3.0)	

**Total Major Units**

**36.0**

## CERTIFICATE PROGRAM

### ALCOHOL AND DRUG STUDIES CERTIFICATE

Thirty-six (36.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required for the certificate (27.0 units)

ADS	101	Alcoholism: Intervention, Treatment, and Recovery	3.0
ADS	110	Physiological Effects of Alcohol and Drugs	3.0
ADS/PSY	120	Introduction to Counseling	3.0
ADS/PSY	130	Group Leadership and Group Process	3.0
ADS	200	Family counseling Approaches to Alcohol and Drug Abuse	3.0
ADS/PSY	210	Crisis Intervention and Referral Techniques	3.0
ADS/PSY	220	Practicum	3.0
ADS/PSY	221	Practicum	3.0
ADS	240	Ethics and Legal Standards in Alcohol Counseling	3.0

#### II. Minimum of nine (9.0) units selected from:

ADS/SOC	150	Sociology of Minority Groups (3.0)	9.0
ADS	176	Sex and Gambling Addiction (1.0)	
ADS	177	Anger Management (1.0)	
ADS	178	Life Skills (1.0)	
ADS	230	Alcohol and Drug Prevention and Education (3.0)	
PSY	101	Introduction to Psychology (3.0)	
PSY	144	The Psychology of Interpersonal Relationships (3.0)	
PSY	204	Developmental Psychology: Conception to Death (3.0)	
PSY	208	Abnormal Psychology (3.0)	
SW	220	Introduction to Social Work (3.0)	
SOC	101	Introduction to Sociology (3.0)	

**Total Certificate Units**

**36.0**

# ALTERNATIVE ENERGY - SOLAR TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

The Alternative Energy-Solar Technology Certificate program is intended to provide an opportunity for students interested in an alternative energy career. This certificate will provide students with the comprehensive understanding, manipulative skills, technical knowledge and related trade information required to prepare them for the nationally recognized Solar NABCEP PV and SH Entry Level Exams. This certificate program will enhance the students' employment opportunities in the growing and rewarding fields of solar systems installation, operation, and maintenance technology.

### PROGRAM LEARNING OUTCOMES

1. Identify and describe the principles of photovoltaic (solar).
2. Describe and explain the National Electrical Codes for solar electrical circuits.
3. Identify the principles of electrical alternative energy system.

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Electrical Installer
- Commercial Electrical Installer
- Electrical Maintenance Technician
- Electrician
- Industrial Maintenance Electrician
- Environmental Engineer
- Solar Engineer
- Electrical Engineer
- Environmental Scientist
- Environmental Engineer

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# ALTERNATIVE ENERGY - SOLAR TECHNOLOGY

## CERTIFICATE PROGRAM

### ALTERNATIVE ENERGY-SOLAR TECHNOLOGY

Twenty-three (23.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Card	3.0
EWIR	110	Electrical Principles	4.0
RNEW	118	Alternative Energies	4.0
RNEW	150	Solar Energy Systems PV1	3.0
RNEW	151	Solar Electrical Systems PV2	3.0
RNEW	152	Solar Heating (SH)	3.0
RNEW	165	NABCEP Entry Level Test Preparation	1.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0

**Total Certificate Units**

**23.0**

# ANTHROPOLOGY (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Anthropology for Transfer (AA-T)

### DESCRIPTION

Anthropology is the study of ancient and modern human beings and their ways of living. Its perspective is biological, social and comparative, encompassing all aspects of human existence from the most ancient societies to those of the present day. The courses are designed to stimulate critical thinking about existing stereotypes regarding the people around us in the world now and those who came before. Cultural Anthropology studies human behavior to understand the cultural values that guide the behaviors. Archaeology examines the material record of human activity in order to understand how ideas change over time. Physical Anthropology (also called Biological Anthropology) is the study of human evolution which includes human biological diversity.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Global Cultural Diversity by recognizing the various social institutions, linguistic diversity, the ways societies have adapted to different environments, and modern and traditional health care system. (Cultural Anthropology)
2. Global Biological Diversity by critically analyzing the evolutionary history of humankind through the fossil record, and the current biological diversity based on scientific evidence of environmental adaptation and the study of genetics. (Biological/Physical Anthropology)
3. Cultural change and development by comparing and contrasting the different stages of cultural development at various geographic regions of the world and the causal factors that lead towards civilizations, monumental architecture, writing, and social stratification. (Archaeology)
4. Comparing and contrasting the Indigenous Cultures of North America, their prehistory, language and social diversity, mythology, and adaptation to a diverse geography and environment. (American Indian Studies)

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

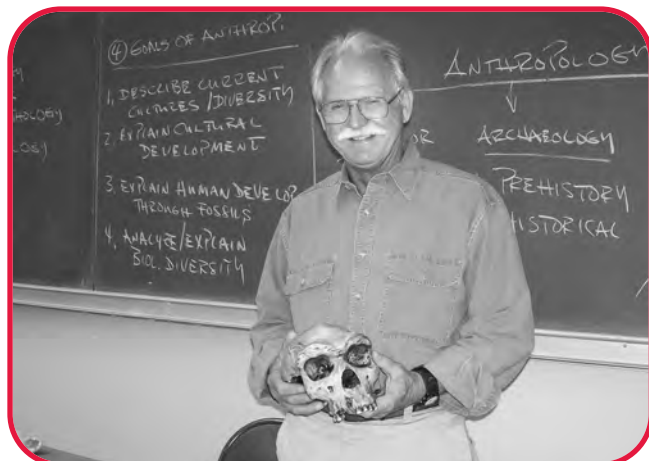
The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Archaeologist
- Linguist
- Museum Curator
- Health Researcher
- Redevelopment Specialist
- Industrial Consultant
- Artifacts Conservator
- Resource Manager
- Environmental Impact Analyst
- Ethnic Relations Specialist
- Population Analyst
- Urban Planner
- Exhibit Designer
- Expedition Guide
- Film Ethnographer
- Social Gerontologist
- College Faculty Member
- Bilingual Education Consultant
- Medical Anthropologist
- Primatologist
- Zoo Director
- Museum Program Director
- Museum Registrar
- Forensic Anthropologist
- Folklorist

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# ANTHROPOLOGY (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### ANTHROPOLOGY

Associate in Arts Degree in Anthropology for Transfer (AA-T) – 19.0-20.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*

II. **General Education** – Must complete one of the following general education transfer patterns:  
A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum  
B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. **Nineteen to Twenty (19-20) units required for the major.**

**A. Required for the Major (13 units)**

ANTH 100	Physical Anthropology	3.0
ANTH 102	Cultural Anthropology	3.0
ANTH 120	Introduction to Archaeology	3.0
MATH 119	Elementary Statistics	4.0

**B. Select one (3-4) units:**

GEOL 100	General Geology (4.0)	3.0-4.0
PSY 212	Research Methods in Psychology (3.0)	

**C. Select one (3) units:**

	Any course from List B not already used.	3.0
AIS/ANTH 106	Indians of North America (3.0)	
AIS/ANTH 108	Indians of the Southwest (3.0)	
HIST/LAS 130	Early Latin America (3.0)	
HIST/LAS 131	Modern Latin America (3.0)	
HIST/LAS 132	History of Mexico (3.0)	
HIST 140	East Asian History (3.0)	
HIST 150	Survey of African History (3.0)	
HIST 160	Middle East from 600 (3.0)	
HIST 220	Women in American History (3.0)	
HIST/LAS 225	Mexican American History (3.0)	
RELS 100	Religions of the Modern World (3.0)	

Total Major Units	18.0-19.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# AUTOMOTIVE TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

### DESCRIPTION

The Automotive Technology program at IVC emphasizes a real world approach to diagnostic skill building and a thorough understanding of system theory and operations. This is accomplished through the use of computer programs, audiovisuals, and hands-on experience with mockups and modern vehicles. Automotive fundamentals are developed with a generalist approach emphasizing independence in self-directed learning. Professionalism, workplace skills and responsibilities are stressed along with safety and an awareness of hazardous materials control. The Automotive Department encourages both women and men to participate in this rewarding profession.

### PROGRAM LEARNING OUTCOMES

1. Describe the purpose of the fundamental automotive systems.
2. Describe the type of skills needed to be an auto technician.
3. Correctly answer ASE certification test questions that require a knowledge of the major parts and systems of a vehicle.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities.

- Tune-up Technician
- Brake Specialist
- General Technician
- Alignment Specialist
- Service Management
- Engine Performance/Drivability Specialist
- Electrical Specialist
- Service Writer
- Transmission Specialist
- Quick Service Tech
- Industrial Technology
- Industrial Engineer
- Automotive Engineer
- Electrical Engineer

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### TRANSFER PREPARATION

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### FINANCIAL AID

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# AUTOMOTIVE TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### AUTOMOTIVE TECHNOLOGY MAJOR – A.S. DEGREE

Thirty-nine (39.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (39.0 units)

AUT	110	Engine Technology	4.0
AUT	125	Automotive Brakes	4.0
AUT	130	Automotive Electronics I	3.0
AUT	150	Automotive Electronics II	4.0
AUT	155	Suspension & Wheel Alignment	4.0
AUT	160	Engine Performance Tune-Up	3.0
AUT	170	Engine Diagnosis & Repair	3.0
AUT	180	Manual Trans & Power Trains	4.0
AUT	210	Automotive Air Conditioning	3.0
AUT	220	Mechanical Automatic Transmissions	4.0
AUT	230	Emissions Control & Computer Systems	3.0

**Total Major Units**

**39.0**

## CERTIFICATE PROGRAM

### AUTOMOTIVE TECHNOLOGY CERTIFICATE

Thirty-nine (39.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (39.0)

AUT	110	Engine Technology	4.0
AUT	125	Automotive Brakes	4.0
AUT	130	Automotive Electronics I	3.0
AUT	150	Automotive Electronics II	4.0
AUT	155	Suspension & Wheel Alignment	4.0
AUT	160	Engine Performance Tune-Up	3.0
AUT	170	Engine Diagnosis & Repair	3.0
AUT	180	Manual Trans & Power Trains	4.0
AUT	210	Automotive Air Conditioning	3.0
AUT	220	Mechanical Automatic Transmissions	4.0
AUT	230	Emissions Control & Computer Systems	3.0

**Total Certificate Units**

**39.0**



# BEHAVIORAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree (A.A.)

### DESCRIPTION

This major is highly recommended for transfer students because it provides a basic foundation for subsequent specialization in many fields of study such as criminal justice, sociology, psychology, human services, and social work to name a few. The value of the degree is now recognized by business and industry as it requires a variety of skills demanded in business, education, health, law, and government, as well as the social services. The general studies student should market educational accomplishments as a collection of career transferable skills in communication, public service, problem solving, production and personnel management.

### PROGRAM LEARNING OUTCOMES

1. Use critical thinking skills regarding the diversity of individuals and groups within the role of culture, ethnic and economic factors when describing behaviors, attitudes and feelings of people in society.
2. Apply critical thinking skills to explain how anthropology, psychology and sociology influence one another as well as individuals and groups in society.
3. Apply the scientific method to investigate, interpret and discuss Behavioral Science issues and social problems.

### ASSOCIATE DEGREE PROGRAM

The Associate in Arts (AA) or the Associate in Science (AS) Degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- All Human Service Careers
- Sociologist
- Social Worker
- Youth Counselor
- Criminologist
- Public Opinion Analyst
- Social Scientist
- Recreation Program Director
- Parole, Probation or Correctional Officer
- University and College Teachers
- Employment Counselor
- Lawyer
- Public Relations Consultant
- Statistician
- Gerontologist
- Child Care Program
- Developer
- Urban and Regional Planner
- Community Organization Worker
- Interviewer/Researcher
- Social Program Planner
- Market Researcher
- Law Enforcement Officer
- Mental Health Counselor

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# BEHAVIORAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### BEHAVIORAL SCIENCE MAJOR – A.A. DEGREE

The requirement for the major in Behavioral Science may be satisfied by taking 18 units from the following list. Three units in each field of study are recommended. No more than 4 courses may be taken in any one discipline.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.0 units)

##### Anthropology and Biology

ANTH	100	Physical Anthropology	3.0
ANTH	102	Cultural Anthropology	3.0
BIOL	100	Principles of Biological Science	4.0
BIOL	122	General Zoology II	4.0

##### Psychology and Child Development

CDEV	103	Child, Family and Community	3.0
MATH	119	Elementary Statistics	4.0

##### OR

PSY	214	Statistical Methods in Behavioral Sciences (4.0)	
PSY	101	Introduction to Psychology	3.0
PSY/CDEV	104	Child Growth and Development	3.0
PSY/ADS	120	Introduction to Counseling	3.0
PSY	142	Psychology of Adjustment	3.0
PSY	144	The Psychology of Interpersonal Relationships	3.0
PSY	146	Psychology of Human Sexuality	3.0
PSY	200	Biological Psychology	3.0
PSY	202	Learning	3.0
PSY	204	Developmental Psychology: Conception to Death	3.0
PSY/SOC	206	Social Psychology	3.0
PSY	208	Abnormal Psychology	3.0
PSY	212	Research Methods in Psychology	3.0
PSY/ADS	220/221	Practicum	3.0

##### Sociology and Social Work

SOC	101	Introduction to Sociology	3.0
SOC	102	Contemporary Social Problems	3.0
SOC	110	Marriage and the Family	3.0
SOC/ADS	150	Sociology of Minority Groups	3.0
SOC/PSY	206	Social Psychology	3.0
SOC/AJ	224	Criminology (Formerly SOC/AJ 124)	3.0
SW	220	Introduction to Social Work	3.0

**Total Major Units**

**18.0**

# BRAKES, SUSPENSION AND STEERING SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

This program is designed to prepare students for entry level employment in the area of Automotive Brakes, Suspension, and Steering. The program will provide the student the necessary skills and knowledge demanded of the modern automotive brakes, suspension, and steering systems. This program will prepare students for employment in the following technical and professional fields: automotive brakes, automotive suspension, steering wheel, and four wheel alignment technicians. In addition, the student will gain the necessary knowledge and preparation to pursue the State Brake License. Upon successful completion of this program, students will be prepared to take Automotive Service Excellence (ASE), Exams for Automotive Brake (Test A4), and Automotive Suspension (Test A5).

### PROGRAM LEARNING OUTCOMES

1. Identify the major part of an automotive brake system
2. Explain the operating principles of steering wheel system
3. Diagnose brake and steering column noises, looseness and binding concerns including tilt mechanisms
4. Diagnosis and repair: Disc and drum brakes units

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### FINANCIAL AID

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### CAREER OPPORTUNITIES

Jobs are available with auto repair shops and machine shops. Experienced technicians with leadership ability may advance to shop supervisors, service writers and service managers.

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# BRAKES, SUSPENSION AND STEERING SPECIALIZATION

## CERTIFICATE PROGRAM

### AUTOMOTIVE BRAKES, SUSPENSION AND STEERING SPECIALIZATION

Twenty (20) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	070	Automotive Techniques and Applications	3.0
AUT	125	Automotive Brakes	4.0
AUT	130	Automotive Electronics I	3.0
AUT	155	Suspension & Wheel Alignment	4.0
AUT	180	Manual Transmissions and Power Trains	4.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0
<b>Total Certificate Units</b>			<b>20.0</b>

# BUILDING CONSTRUCTION TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

Specialization Certificates in Carpentry and Concrete Masonry

## DESCRIPTION

The Building Construction Technology Associate in Science degree along with the certificate and specializations in Carpentry and Concrete Masonry, are designed to provide instruction in manipulative skills, technical knowledge, and related trade information, which will prepare the student for employment in the building construction industry. The course work for the associate degree also emphasizes subject areas that are significant to the construction worker such as engineering fundamentals, construction management, business administration, humanities and social sciences, and the development of analytical and communication skills through the general education requirements.

## PROGRAM LEARNING OUTCOMES

1. Measure and understand linear dimensions on plans using an architect scale to be able to interpret the actual measurement according to the scale being used.
2. Perform cost estimates for a construction projects using a local index.
3. Understand the relationship between tensile strength and compressive strength to understand how they interact under pressure.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified some will require the completion of degree requirements at 4-year colleges and universities.

- Construction Manager
- Construction Estimator
- Civil Engineer
- General Contractor
- Technical Salesperson
- Structural Engineer
- Sub-Contractor
- Construction Consultant
- Environmental Engineer
- Project Manager
- Architect
- Construction Scheduler or Planner
- Forensic Construction Specialist

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## TRANSFER PREPARATION

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# BUILDING CONSTRUCTION TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### BUILDING CONSTRUCTION TECHNOLOGY MAJOR – A.S. DEGREE

Twenty-five (25.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required for the major (25.0 units)

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Card	3.0
BLDC	110	Construction Blueprints, Specifications, Measurements and Codes	3.0
BLDC	130	Carpentry Layout and Framing	4.0
BLDC	135	Residential Plumbing Applications	3.0
BLDC	140	Building Construction Methods and Materials	3.0
BLDC	145	Concrete Formwork, Layout and Setting	3.0
BLDC	170	Essentials of Efficient Green Construction	3.0
BLDC	180	Building Planning and Cost Estimation	3.0

**Total Major Units**

**25.0**

## CERTIFICATE PROGRAM

### BUILDING CONSTRUCTION TECHNOLOGY CERTIFICATE

Twenty-five (25.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required for the certificate (25.0 units)

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Card	3.0
BLDC	110	Construction Blueprints, Specifications, Measurements & Codes	3.0
BLDC	130	Carpentry Layout & Framing	4.0
BLDC	135	Residential Plumbing Applications	3.0
BLDC	140	Building Construction Methods & Materials	3.0
BLDC	145	Concrete Formwork, Layout & Setting	3.0
BLDC	170	Essentials of Efficient Green Construction	3.0
BLDC	180	Building Planning & Cost Estimation	3.0

**Total Certificate Units**

**25.0**

# BUILDING CONSTRUCTION TECHNOLOGY

## SPECIALIZATION CERTIFICATES

The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Building Construction Technology.

ALL COURSES FOR THESE - MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### BUILDING CONSTRUCTION TECHNOLOGY: CARPENTRY SPECIALIZATION - Major Plus 7.0 Units

The Carpentry Specialization is designed to provide instruction in manipulative skills, technical knowledge, and related trade information, which will prepare the student for employment in the Building Construction Industry.

#### PROGRAM LEARNING OUTCOMES

1. Identify four blueprint symbols and learn their meaning and usage in blueprints; compare the identified symbols to symbols used in other countries in order to understand symbol standardization in the world; measure a linear dimension using an architect scale to be able to interpret the actual measurement according to the scale being used.
2. Create a reliable cost estimate for a construction project in our county based on square footage and compare the same estimate based on labor and material quantities.
3. Students will create a layout and analyze it and test it to make sure it is perfectly square.

#### I. The major plus seven (7.0) additional units in Carpentry course work.

BLDC	150	Carpentry Methods, Materials & Tools	4.0
BLDC	190	Carpentry Trim & Detail Work	3.0
Total Major Units			25.0
Building Construction Technology: Carpentry Specialization Units			<u>7.0</u>
<b>Total Certificate Units:</b>			<b>32.0</b>

### BUILDING CONSTRUCTION TECHNOLOGY: CONCRETE MASONRY SPECIALIZATION - Major Plus 8.0 Units

The Concrete Masonry Specialization is designed to provide instruction in manipulative skills, technical knowledge, and related trade information, which will prepare the student for employment in the Building Construction Masonry Industry.

#### PROGRAM LEARNING OUTCOMES

1. Calculate the quantities in cubic yards using the following formula  $L \times W \times D / 27 =$  cubic yards, to be able to estimate actual quantities and place actual orders.
2. Create a reliable cost estimate for a foundation project in our county based on square footage and compare the same estimate based on labor and material quantities.
3. Students will create a layout and analyze it and test it to make sure it is perfectly square.

#### I. The major plus eight (8.0) additional units in Concrete Masonry course work.

BLDC	165	Concrete Materials, Methods & Tools	4.0
BLDC	185	Concrete Footings, Flatwork & Detail Work	4.0
Total Major Units			25.0
Building Construction Technology: Concrete Masonry Specialization Units			<u>8.0</u>
<b>Total Certificate Units:</b>			<b>33.0</b>

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# BUSINESS ACCOUNTING TECHNICIAN

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

## DESCRIPTION

Business Administration programs at IVC, both at the associate degree and certificate of achievement levels, prepare the student by offering courses that allow students opportunities to acquire practical skills, technical knowledge and experience in a variety of fields. The fields of study available are: Business Administration for transfer, Accounting Technician, Administrative Assistant, Financial Services, Management, Marketing and Office Technician. These programs introduce the student to the world of commercial transactions, which occur in the distribution of resources in our American economic system.

The Business Accounting Technician program provides students with entry level competencies for employment as a bookkeeper or other financial clerk. Accounting Technicians can be found in setting such as banks and offices. Students who intend to pursue an accounting degree at a four-year school should follow the Business Administration major.

## PROGRAM LEARNING OUTCOMES

- 1 Solve business-related math problems.
- 2 Communicate business results using computer software.
- 3 Record and report routine accounting transactions.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Accounting
- Account Executive
- Accountant
- Auditor
- Bank Examiner
- Bank Teller
- Budget Analyst
- Budget Officer
- Certified Internal Auditor
- Certified Management Accountant
- Certified Public Accountant
- Chief Financial Officer
- Controller
- Cost Accountant
- Cost Analyst
- Credit Analyst
- Credit Manager
- Estate Planner
- FBI Agent
- Internal Revenue Service Agent
- Franchise Tax Board Agent
- Government Accountant
- Government Auditor
- Internal Auditor
- Investment Analyst
- Loan Officer
- Tax Accountant
- Tax Consultant
- Treasurer

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# BUSINESS ACCOUNTING TECHNICIAN

## ASSOCIATE DEGREE PROGRAM

### BUSINESS ACCOUNTING TECHNICIAN MAJOR – A.S. DEGREE

Twenty-eight (28.0) units require for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (25.0 units)

BUS	100	Practical Accounting	3.0
BUS	105	Business Office Math	3.0
BUS	169	Records Management	2.0
BUS	172	Office Procedures for the Workplace	3.0
BUS	180	Microsoft Office Suite for the Workplace	4.0
BUS	210**	Principles of Financial Accounting	4.0
CIS	108	Computer Accounting	3.0
CIS	125	EXCEL II	1.0
WE	201*	Employment Readiness	1.0
WE	220*	Internship	1.0

#### I. Select One course from the following (3.0 units)

BUS	063	Essentials in Workplace Communication	3.0
BUS	164	Microsoft Word for the Workplace	3.0

\* It is recommended that the work experience courses be taken after the completion of at least 12 units in the major.

\*\* It is recommended that BUS 010 be taken as preparation for BUS 210.

#### III. Keyboarding skill level 40 nwpm. (BUS 154, Beginning Keyboarding and Document Formatting and BUS 156, Keyboarding: Speed and Accuracy, may be helpful in obtaining this skill level.)

**Total Major Units 28.0**

## CERTIFICATE PROGRAM

### BUSINESS ACCOUNTING TECHNICIAN CERTIFICATE

Twenty-eight (28.0) units require for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (25.0 units)

BUS	100	Practical Accounting	3.0
BUS	105	Business Office Math	3.0
BUS	169	Records Management	2.0
BUS	172	Office Procedures for the Workplace	3.0
BUS	180	Microsoft Office Suite for the Workplace	4.0
BUS	210**	Principles of Financial Accounting	4.0
CIS	108	Computer Accounting	3.0
CIS	125	EXCEL II	1.0
WE	201*	Employment Readiness	1.0
WE	220*	Internship	1.0

#### I. Select One course from the following (3.0 units)

BUS	063	Essentials in Workplace Communication	3.0
BUS	164	Microsoft Word for the Workplace	3.0

\* It is recommended that the work experience courses be taken after the completion of at least 12 units in the major.

\*\* It is recommended that BUS 010 be taken as preparation for BUS 210.

#### III. Keyboarding skill level 40 nwpm. (BUS 154, Beginning Keyboarding and Document Formatting and BUS 156, Keyboarding: Speed and Accuracy, may be helpful in obtaining this skill level.)

**Total Certificate Units 28.0**

# BUSINESS ADMINISTRATION (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree in Business Administration for Transfer (AS-T)

### DESCRIPTION

Business administration is a broad area encompassing administration, management, marketing, finance, entrepreneurship, supervision, banking, small business, merchandising, international trade, accounting, and information systems. Study in this area explores the theories, history, principles, skills, practices, laws, ethics and technologies governing the increasingly global business environment. The American Assembly of Collegiate Schools of Business (AACSB), a national business/management program accrediting agency, stipulates that lower division course work is preparatory to a bachelor's degree. Thus, this program is designed to provide a basic overview of the subject matter.

The Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Evaluate business data and reach conclusions.
2. Apply quantitative and or quantitative analysis to solve problems.
3. Communicate effectively to relevant populations.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Accounting
- Appraiser
- Banking
- Business Entrepreneur
- Communications Analyst
- Database Specialist
- Escrow Officer
- Promotion
- Sales
- FBI Agent
- Finance
- Financial Services
- Human Resources Manager
- Loan Officer
- Public Administration
- Health Administration
- Import /Export Agent
- Information Systems Specialist
- Inspection
- Management
- Marketing
- Marketing Manager
- Merchandising Manager
- Product Manager
- Personnel Manager
- Programmer/Analyst
- Purchasing Marketing
- Real Estate
- Mortgage Broker
- Property Manager
- Real Estate Broker
- Sales Representative
- Small Business Owner
- Transportation Administration
- Utilities Administration

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

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[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# BUSINESS ADMINISTRATION (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### BUSINESS ADMINISTRATION

Associate in Science Degree in Business Administration for Transfer (AS-T) – 26.0-27.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Twenty-six to twenty-seven (26-27) units required for the major.**

#### A. Required for the Major

BUS	126	Business and the Legal Environment	3.0
BUS	210	Principles of Financial Accounting	4.0
BUS	220	Principles of Managerial Accounting	4.0
ECON	101	Introduction to Micro Economics	3.0
ECON	102	Intro to Macro Economics	3.0

#### B. Select three/four (3-4) units from: 3.0-4.0

MATH	119	Elementary Statistics (4.0)
MATH	122	Finite Mathematics (3.0)
MATH	170	Introductory Calculus with Applications (4.0)

#### C. Select six (6) units from: 6.0

CIS	101	Introduction to Information Systems (3.0)
BUS	124	Introduction to Business (3.0)
or		
BUS	260	Business Communications (3.0)

Total Major Units	26.0-27.0
CSU-GE or IGETC Pattern	37.0-39.0
Units that may be double counted	17.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# BUSINESS ADMINISTRATIVE ASSISTANT

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

## DESCRIPTION

Business Administration programs at IVC, both at the associate degree and certificate of achievement levels, prepare the student by offering courses that allow students opportunities to acquire practical skills, technical knowledge and experience in a variety of fields. The fields of study available are: Business Administration for transfer, Accounting Technician, Administrative Assistant, Financial Services, Management, Marketing and Office Technician. These programs introduce the student to the world of commercial transactions, which occur in the distribution of resources in our American economic system.

This Business Administrative Assistant program provides students with education and training needed to qualify for jobs that require a higher level of education and work experience in an office setting. These types of jobs require good communication and technology skills, and it helps to be someone who works independently, is organized, and takes initiative. These individuals provide administrative support to an individual or an office. Job duties may include directing and coordinating administrative services.

## PROGRAM LEARNING OUTCOMES

1. Solve business-related math problems.
2. Apply effective verbal, nonverbal and written communication in a professional manner.
3. Use software to communicate effectively and solve problems.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

This program provides for the study of a wide range of subjects related to positions and careers in the modern office. The program includes the training necessary to successfully perform in the many and varied Office Technician and Administrative Assistant positions available in the job market.

- Administrative Assistant
- Office Technician
- Executive Secretary
- Administrative Manager
- Computer Applications Specialist
- Secretary
- Bookkeeper
- Receptionist
- Word Processor
- Records Manager
- Medical Office Assistant
- (see Allied Health program)

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

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<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# BUSINESS ADMINISTRATIVE ASSISTANT

## ASSOCIATE DEGREE PROGRAM

### BUSINESS ADMINISTRATIVE ASSISTANT MAJOR – A.S. DEGREE

Twenty-eight (28.0) units and skill level required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (28.0 units)

BUS	105	Business Office Math	3.0
BUS	126	Business and the Legal Environment	3.0
BUS	136	Human Relations in Management	3.0
BUS	172	Office Procedures for the Workplace	3.0
BUS	180	Microsoft Office Suite for the Workplace	4.0
BUS	210**	Principles of Financial Accounting	4.0
BUS	260	Business Communications	3.0
CIS	101	Introduction to Information Systems	3.0
WE	201*	Employment Readiness	1.0
WE	220*	Internship	1.0

\* It is recommended that the work experience courses be taken after the completion of at least 12 units in the major.

\*\* It is recommended that BUS 010 be taken as preparation for BUS 210.

#### II. Required skill level for the major

Keyboarding skill level 50 nwpm. (BUS 154, Beginning Keyboarding and Document Formatting and BUS 156, Keyboarding: Speed and Accuracy, may be helpful in obtaining this skill level.)

**Total Major Units**

**28.0**

## CERTIFICATE PROGRAM

### BUSINESS ADMINISTRATIVE ASSISTANT CERTIFICATE

Twenty-eight (28.0) units and skill level required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (28.0 units)

BUS	105	Business Office Math	3.0
BUS	126	Business and the Legal Environment	3.0
BUS	136	Human Relations in Management	3.0
BUS	172	Office Procedures for the Workplace	3.0
BUS	180	Microsoft Office Suite for the Workplace	4.0
BUS	210**	Principles of Financial Accounting	4.0
BUS	260	Business Communications	3.0
CIS	101	Introduction to Information Systems	3.0
WE	201*	Employment Readiness	1.0
WE	220*	Internship	1.0

\* It is recommended that the work experience courses be taken after the completion of at least 12 units in the major.

\*\* It is recommended that BUS 010 be taken as preparation for BUS 210.

#### II. Required skill level for the certificate

Keyboarding skill level 50 nwpm. (BUS 154, Beginning Keyboarding and Document Formatting and BUS 156, Keyboarding: Speed and Accuracy, may be helpful in obtaining this skill level.)

**Total Certificate Units**

**28.0**

# BUSINESS MANAGEMENT

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

## DESCRIPTION

Business Administration programs at IVC, both at the associate degree and certificate of achievement levels, prepare the student by offering courses that allow students opportunities to acquire practical skills, technical knowledge and experience in a variety of fields. The fields of study available are: Business Administration for transfer, Accounting Technician, Administrative Assistant, Financial Services, Management, Marketing and Office Technician. These programs introduce the student to the world of commercial transactions, which occur in the distribution of resources in our American economic system.

The Business Management program provides students with education and training needed for entry level supervisory and management positions in areas such as government, retail, banking, and hospitality. These positions require students who are mature, adaptable, analytical, and who have good organizational and communication skills. Students who intend to pursue a four-year business degree should follow the Business Administration major.

## PROGRAM LEARNING OUTCOMES

1. Evaluate business data and reach reasoned conclusions.
2. Show understanding of accounting information for use in decision-making, controlling, planning and directing operations.
3. Demonstrate an ability to productively work as a team member with people of diverse experiences and backgrounds.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

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## CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Human Resources Manager
- Industrial Relations Manager
- Labor Negotiator
- Manpower Planning Specialist
- Personnel Analyst
- Personnel Manager
- Recruitment Manager
- Management and Business Consultant
- Import/Export Operations Manager
- Work Design Analyst
- Management Analyst
- Small Business Owner
- Banking Manager
- Management Consultant
- Information Systems Manager
- Operations Manager
- Organization Development Consultant
- Management Systems Consultant
- Production Manager
- Safety Manager
- Systems Manager
- Warehouse Manager
- Quality Control Manager

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## TRANSFER PREPARATION

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

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# BUSINESS MANAGEMENT

## ASSOCIATE DEGREE PROGRAM

### BUSINESS MANAGEMENT MAJOR – A.S. DEGREE

Twenty-five (25.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (19.0 units)

BUS	124	Introduction to Business	3.0
BUS	126	Business and the Legal Environment	3.0
BUS/AG	132	Business Management	3.0
BUS	210	Principles of Financial Accounting	4.0
BUS	260	Business Communications	3.0
CIS	101	Introduction to Information Systems	3.0

#### II. Acceptable courses for the major (minimum of 6.0 units from the following courses)

BUS	063	Essentials in Workplace Communication (3.0)	
BUS	100	Practical Accounting (3.0)	
BUS	134	Management Concepts of Supervision (3.0)	
BUS	136	Human Relations in Management (3.0)	
BUS	144	Principals of Marketing (3.0)	
BUS	148	Personal Finance (3.0)	
BUS	220	Principles of Managerial Accounting (4.0)	
CIS	102	Computer Applications Laboratory (1.0)	
CIS	108	Computer Accounting (3.0)	
CIS	124	Excel I (1.0)	
CIS	125	Excel II (1.0)	
ECON	101	Intro to Micro Economics (3.0)	
ECON	102	Intro to Macro Economics (3.0)	
WE	201	Employment Readiness (1.0)	
WE	220	Internship (1.0)	

**Total Major Units**

**25.0**

## CERTIFICATE PROGRAM

### BUSINESS MANAGEMENT CERTIFICATE

Twenty-five (25.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (19.0 units)

BUS	124	Introduction to Business	3.0
BUS	126	Business and the Legal Environment	3.0
BUS/AG	132	Business Management	3.0
BUS	210	Principles of Financial Accounting	4.0
BUS	260	Business Communications	3.0
CIS	101	Intro to Information Systems	3.0

#### II. Acceptable courses for the certificate (minimum of 6.0 units from the following courses)

BUS	063	Essentials in Workplace Communication (3.0)	
BUS	100	Practical Accounting (3.0)	
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CIS	108	Computer Accounting (3.0)	
CIS	124	Excel I (1.0)	
CIS	125	Excel II (1.0)	
ECON	101	Intro to Micro Economics (3.0)	
ECON	102	Intro to Macro Economics (3.0)	
WE	201	Employment Readiness (1.0)	
WE	220	Internship (1.0)	

**Total Certificate Units**

**25.0**



# BUSINESS OFFICE TECHNICIAN

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

## DESCRIPTION

Business Administration programs at IVC, both at the associate degree and certificate of achievement levels, prepare the student by offering courses that allow students opportunities to acquire practical skills, technical knowledge and experience in a variety of fields. The fields of study available are: Business Administration for transfer, Accounting Technician, Administrative Assistant, Financial Services, Management, Marketing and Office Technician. These programs introduce the student to the world of commercial transactions, which occur in the distribution of resources in our American economic system.

This program provides students with entry level competencies for employment in an office environment with the latest technology applications. Students will become team players, communicators, leaders, and self-starters with a high level of organizational skills and confidence. Interpersonal and analytical skills will not only help students do well in the workplace, but also provide possible career advancement opportunities.

## PROGRAM LEARNING OUTCOMES

1. Solve business-related math problems.
2. Design and create business documents using Microsoft Office Suite.
3. Apply accurate written, verbal and nonverbal techniques in order to communicate effectively.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

This program provides for the study of a wide range of subjects related to positions and careers in the modern office. The program includes the training necessary to successfully perform in the many and varied Office Technician and Administrative Assistant positions available in the job market.

- Administrative Assistant
- Office Technician
- Executive Secretary
- Administrative Manager
- Computer Applications Specialist
- Secretary
- Bookkeeper
- Receptionist
- Word Processor
- Records Manager
- Medical Office Assistant  
(See Allied Health program)

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# BUSINESS OFFICE TECHNICIAN

## ASSOCIATE DEGREE PROGRAM

### BUSINESS OFFICE TECHNICIAN MAJOR – A.S. DEGREE

Twenty-nine (29.0) units and skill level required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the major (29.0 units)

BUS	059	Practical English for the Workplace	3.0
BUS	061	Business English	3.0
BUS	063	Essentials in Workplace Communication	3.0
BUS	105	Business Office Math	3.0
BUS	164	Microsoft Word for the Workplace	3.0
BUS	169	Records Management	2.0
BUS	172	Office Procedures for the Workplace	3.0
BUS	180	Microsoft Office Suite for the Workplace	4.0
BUS	260	Business Communications	3.0
WE	201*	Employment Readiness	1.0
WE	220*	Internship	1.0

\* It is recommended that the work experience courses be taken after the completion of at least 12 units in the major.

#### III. Required skill level for the major

Keyboarding skill level 40 nwpm. (BUS 154, Beginning Keyboarding and Document Formatting and BUS 156, Keyboarding: Speed & Accuracy, may be helpful in obtaining this skill level.)

**Total Major Units**

**29.0**

## CERTIFICATE PROGRAM

### BUSINESS OFFICE TECHNICIAN CERTIFICATE

Twenty-six (26.0) units and skill level required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the certificate (26.0 units)

BUS	059	Practical English for the Workplace	3.0
BUS	061	Business English	3.0
BUS	063	Essentials in Workplace Communication	3.0
BUS	105	Business Office Math	3.0
BUS	164	Microsoft Word for the Workplace	3.0
BUS	169	Records Management	2.0
BUS	172	Office Procedures for the Workplace	3.0
BUS	180	Microsoft Office Suite for the Workplace	4.0
WE	201*	Employment Readiness	1.0
WE	220*	Internship	1.0

\* It is recommended that the work experience courses be taken after the completion of at least 12 units in the major.

#### III. Required skill level for the certificate

Keyboarding skill level 40 nwpm. (BUS 154, Beginning Keyboarding and Document Formatting and BUS 156, Keyboarding: Speed & Accuracy, may be helpful in obtaining this skill level.)

**Total Certificate Units**

**26.0**

# CALIFORNIA STATE UNIVERSITY

## GENERAL EDUCATION BREADTH (CSU GE-B)

### DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

#### DESCRIPTION

Students transferring to the California State University system have the opportunity to complete their lower division general education requirements at Imperial Valley College (IVC). This pattern of general education consists of 39 semester units. Earning a CSU/GE-Breadth Certificate of Achievement will enable IVC to officially acknowledge the significant educational achievement the student has completed at IVC. For specific course identification that clear the CSU/GE-Breadth requirements for each section please see a Counselor for assistance.

CSU/GE-Breadth is separated into 5 separate academic areas. Each area requires a specific unit/course requirement(s). A grade of "C" or better for each course used to satisfy the CSU/GE-Breadth requirements is required. It is recommended, and at some CSU's required, that the CSU/GE-Breadth be completed in its entirety prior to transfer. Students who do not complete the entire program before transfer could be subject to the general education requirements of the campus or college to which they transfer.

#### PROGRAM LEARNING OUTCOMES

1. See GE Program Outcomes/Course Alignment Grid at [www.imperial.edu/faculty-and-staff/campus-committees/student-learning-outcomes/](http://www.imperial.edu/faculty-and-staff/campus-committees/student-learning-outcomes/)

#### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

#### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

#### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

# CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION BREADTH (CSU GE-B)

## CERTIFICATE PROGRAM

### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION BREADTH (CSU GE-B) CERTIFICATE

Students must complete a minimum of 39 semester units used to satisfy the CSU GE-B requirements.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION BREADTH (CSU GE-B) REQUIREMENTS For specific course identification that clear the CSU GE-B requirements for each section, please see a Counselor for assistance.

	Minimum Units Required Per Area
<b>AREA A – ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING</b> (9 semester or 12/15 quarter units)	
Area A1: Oral Communication (3 semester/4 quarter units)	3
Area A2: Written Communication (3 semester/4 quarter units)	3
Area A3: Critical Thinking (3 semester/4 quarter units)	3
<b>AREA B – SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING</b> Minimum: 9 semester or 12/15 quarter units with at least one lab course from either area.	
Area B1: Physical Science – One course required	3
Area B2: Life Science – One course required	3
Area B3: Laboratory Activity – One Course required (see Area B1 and B2 for a laboratory course)	
Area B4: Mathematics/Quantitative Reasoning – One Course required	3
<b>AREA C – ARTS AND HUMANITIES - Nine (9) semester or 12/15 quarter units</b> Three (3) courses, with at least one course from the Arts and one Course from the Humanities. The third course from either area.	
Area C1: Arts; Area C2: Humanities; <u>and</u> one more course from either Area C1 <u>or</u> C2.	9
<b>AREA D – AMERICAN INSTITUTIONS (AI) AND SOCIAL SCIENCE (Areas D0 thru D9)</b> Nine (9) semester or 12/15 quarter units. A least three courses from at least two (2) academic disciplines.	
Area AI/D6 (US-2/US-3): Political Science (POLS) 102	3
Area AI/DI (US-1): History (HIST) 120 <u>or</u> 121	3
Area D: Human Social, Political and Economic Institutions and Behavior – One course required	3
<b>AREA E – LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT</b> One Course (3 semester/4 quarter units)	
Area E: Understanding and Self Development	3
<b>TOTAL MINIMUM UNITS REQUIRED</b>	<b>39</b>

**NOTE - CSU/GE Certification:** Earning this Certificate of Achievement will not replace the CSU/GE Certification document. The "certification" of CSU General Education Breadth is a separate process. The student must request CSU/GE Certification at the time he/she requests a final IVC transcript to be sent to the CSU or other school he/she plans on attending.

# CHILD DEVELOPMENT

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

Specialization Certificates: Administration, Children with Special Needs, Infant/Toddler, and School Age

## DESCRIPTION

Child Development is the study of the physical, socio-emotional and cognitive growth and development of the child from infancy through adolescence. The Child Development program provides an educational and practical foundation for students interested in working with children. In addition to theoretical principles, the curriculum offers practical skills and on-site training that will prepare students for employment in the field of education. The program leads to an associate's degree in Child Development, a certificate for the position of Associate Teacher, and specialization certificates in Administration, Children with Special Needs, Infant/Toddler, School Age. The program also fulfills the required child development course work for the state issued Child Development Permit. Information regarding this permit and/or the Child Development certificate is available from the Child, Family and Consumer Sciences Department.

## PROGRAM LEARNING OUTCOMES

1. Exhibit grounding in a child development knowledge base.
2. Demonstrate knowledge in building relationships with children, family and community.
3. Observe, document, and assess to support young children and families.
4. Demonstrate developmentally effective approaches to create positive relationships and supportive interactions as the foundation in working with children and families from diverse societies.
5. Use content knowledge to build meaningful curriculum.
6. Demonstrate Professionalism.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities and may require additional education beyond the baccalaureate degree.

- Adoption Counselor
- Child Advocate
- Child Care Coordinator
- Camp Counselor
- Child Life Specialist
- Children's Hospital Worker
- Child Life Specialist
- Before/After School Teacher/Director
- Community College Instructor
- Distributor of Educational Toys
- Employer-Sponsored Child Care Teacher/Director
- K-12 Instructional Assistant
- Playground/Environment Designer
- Resource and Referral Coordinator
- Child Psychologist
- Early Childhood
- Teacher/Administrator
- Early Childhood Special
- Education Specialist
- Family Child Care Provider
- Home Based Educator
- Child Development Specialist
- Consultant to Educational Toy Producers
- Early Childhood Instructional Aide
- Infant Day Care Teacher/Director
- Parent/Adult Education Instructor
- Preschool Teacher or Administrator
- Marriage/Family Counselor
- Music/Art Therapist
- Pediatric Psychologist
- School-Age Care Provider
- Social Worker
- Special Education Assistant
- Special Education Teacher
- Elementary School Teacher
- Planned Parenthood Worker

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## TRANSFER PREPARATION

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## Transfer Resources:

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[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# CHILD DEVELOPMENT

## ASSOCIATE DEGREE PROGRAM

### CHILD DEVELOPMENT MAJOR – A.S. DEGREE

Twenty-nine (29.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required Courses for the major (26.0 units)

CDEV	100	Principles & Practices of Teaching Young Children	3.0
CDEV	101	Health, Safety and Nutrition	3.0
CDEV	102	First Aid & CPR for Teachers of Young Children	1.0
CDEV	103	Children, Family and Community	3.0
CDEV/PSY	104	Child Growth and Development	3.0
CDEV	105	Introduction to Curriculum	3.0
CDEV	106	Observation and Assessment	3.0
CDEV	107	Teaching in a Diverse Society	3.0
CDEV	200	Practicum-Field Experience	4.0

#### II. Select four to five units from the following (4.0-5.0 units; two courses):

CDEV	120	Language & Literature for Early Childhood (2.0)	
CDEV	121	Art for Young Children (2.0)	
CDEV	122	Science and Math for Early Childhood (2.0)	
CDEV	123	Music & Movement for Early Childhood (2.0)	
CDEV	124	Creative Cooking for Children (2.0)	
CDEV	125	Multilingual & Multicultural Curriculum for Young Children (3.0)	

**Total Major Units**

**30.0-31.0**

## CERTIFICATE PROGRAM

### CHILD DEVELOPMENT ASSOCIATE TEACHER

Sixteen (16.0) units required for the certificate.

The Child Development Associate Teacher Certificate of Achievement is designed for students who are interested in working with young children as preschool associate teachers, daycare providers, and other child development careers in early childhood. The Early Childhood Associate Teacher Certificate provides students with a background of knowledge and skills in child growth and development. The certificate meets the requirements for the Child Development Permit Matrix: Associate Teacher Permit, requiring 12 units in early childhood, first aid and CPR, and the additional courses required by most child care providers for employment, totaling 16 units.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### PROGRAM LEARNING OUTCOMES

1. Describe and apply principles of cognitive, physical, and social emotional development for young children birth to adolescence.
2. Identify components of quality early childhood programs.
3. Assist in the planning and implementation of developmentally appropriate activities and environmental design.
4. Observe and document children’s development in partnership with families for positive influence on children’s development.

#### I. Required Courses for the certificate

CDEV	101	Health, Safety and Nutrition	3.0
CDEV	102	First Aid and CPR for Teachers of Young Children	1.0
CDEV	103	Children, Family and Community	3.0
CDEV/PSY	104	Child Growth and Development	3.0
CDEV	105	Introduction to Curriculum	3.0
CDEV	106	Observation and Assessment	3.0

*Note: To be eligible for the State of California Child Development Permit; Associate Teacher students must complete the following experience requirements: fifty (50) days of three or more hours per day within two years.*

**Total Certificate Units**

**16.0**

# CHILD DEVELOPMENT

## SPECIALIZATION CERTIFICATES

The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Child Development.

ALL COURSES FOR THESE CERTIFICATES MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### CHILD DEVELOPMENT ADMINISTRATION SPECIALIZATION - Major Plus 9.0 Units

The Administration Specialization Certificate is a certificate demonstrating a completion of specialized course work above the major in the area of Administration. This specialization certificate will prepare students to supervise and manage early childhood programs.

#### PROGRAM LEARNING OUTCOMES

- 1 Prioritize, organize and manage the logistics of an early Care and Education program including; staff training, evaluation, budget, and community relations.
- 2 Supervise staff, assistants, aids, and teachers in an early care and education setting.
- 3 Create a developmentally appropriate learning environment for children in an early care and education setting.
- 4 Assess the development of children for the purposes of curriculum planning and implementation.
- 5 Recognize, integrate and value the individualized needs of the diverse children and their families.

#### I. The major plus nine (9.0) additional units in Administration

CDEV	210	Administration and Supervision	3.0
CDEV	211	Advanced Management Functions	3.0
CDEV	212	Adult Supervision in Child Development Programs	3.0
Total Major Units			30.0-31.0
Child Development Administration Specialization Units			9.0
<b>Total Certificate Units:</b>			<b>39.0-40.0</b>

### CHILD DEVELOPMENT CHILDREN WITH SPECIAL NEEDS SPECIALIZATION – Major Plus 6.0 Units

The Child Development Certificate with Specialization in Special Needs focuses on professional preparation for employment with children with special needs and their families in a variety of early childhood settings. Emphasis will be placed on early intervention, curriculum strategies, screening and assessment tools, laws affecting special education and collaboration with families and professionals.

#### PROGRAM LEARNING OUTCOMES

- 1 Students will be prepared for employment in early intervention programs, inclusive early childhood programs, and early special education programs in a variety of early childhood settings.
- 2 Students will recognize various exceptionalities and conditions of children and identify interventions and curriculum strategies.
- 3 Students will gain knowledge in special education laws both federal and state, and regulations impacting care and education of children with special needs.

#### I. The major plus six (6.0) units in Associate Teacher course work.

CDEV	240	Introduction to Children with Special Needs	3.0
CDEV	241	Curriculum and Strategies for Children with Special Needs	3.0
Total Major Units			30.0-31.0
Child Development Children with Special Needs Specialization Units			6.0
<b>Total Certificate Units:</b>			<b>36.0-37.0</b>

# CHILD DEVELOPMENT

## SPECIALIZATION CERTIFICATES

The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Child Development.

ALL COURSES FOR THESE CERTIFICATES MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### CHILD DEVELOPMENT INFANT/TODDLER SPECIALIZATION – Major Plus 6.0 Units

The Infant/Toddler Specialization Certificate is a certificate demonstrating a completion of specialized coursework above the major in Infant/Toddler studies. This certificate will also meet the requirements for the specialization field in applying for the Master Teacher Permit.

#### PROGRAM LEARNING OUTCOMES

1. Recognize the importance of infancy as a unique time in children's development that requires specialized developmentally appropriate activities, routines, interactions, and guidance.
2. Distinguish the unique needs of children less than three years from older children in areas of health, safety, environmental design, curriculum, and social emotional development.
3. Understands the importance of establishing positive child, family, and provider relationships.

#### I. The major plus six (6.0) units in Infant/Toddler course work.

CDEV	220	Infant/Toddler Development	3.0
CDEV	221	Infant/Toddler Curriculum	3.0
Total Major Units			30.0-31.0
Child Development Infant/Toddler Specialization Units			6.0
<b>Total Certificate Units:</b>			<b>36.0-37.0</b>

### CHILD DEVELOPMENT SCHOOL-AGE SPECIALIZATION CERTIFICATE – Major Plus 6.0 Units

The School-Age Specialization Certificate is a certificate demonstrating a completion of specialized course work above the major in working with school-age children. This certificate will also meet the requirements for the specialization field in applying for the Master Teacher Permit.

#### PROGRAM LEARNING OUTCOMES

1. Create appropriate environments for a variety of before and after-school programs, and full day programs.
2. Demonstrate respectful and positive interactions that value diverse children and families.
3. Demonstrate positive guidance strategies that promote self discipline and positive interactions among peers.

#### I. The major plus six (6.0) units in School-Age course work.

CDEV	230	School-Age Development	3.0
CDEV	231	School-Age Curriculum	3.0
Total Major Units			30.0-31.0
Child Development School-Age Specialization Units			6.0
<b>Total Certificate Units:</b>			<b>36.0-37.0</b>



# CISCO CCNA DISCOVERY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

## DESCRIPTION

The Cisco CCNA Discovery program provides general networking theory, practical experience, soft-skills development, and opportunities for career exploration. It teaches networking based on application, covering networking concepts within the context of network environments students may encounter in their daily lives -- from small office and home office (SOHO) networking to more complex enterprise and theoretical networking models later in the curriculum. The program prepares students for two different Cisco certification exams. After completing the program, students will be prepared to take the industry-standard Cisco CCNA certification exam. In addition, students may opt to take the CCENT certification as a first step toward earning the CCNA certification. CCENT certifies the practical skills required for entry-level information and communication technology skills and demonstrates a student's aptitude and competence to work in an environment that features Cisco networking devices and software.

The Cisco CCNA Discovery curriculum is primarily designed for students who are seeking entry-level information and communication technology skills for positions such as network administrator, network engineer, network technician, computer technicians, network installer, and help desk technician.

## PROGRAM LEARNING OUTCOMES

1. Demonstrate aptitude and competence for working with Cisco routers, switches and Cisco IOS.
2. Show the practical skills required for associate-level networking support positions.
3. Demonstrate skills necessary to pass two different Cisco certification exams, CCENT or CCNA.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Programmer
- Applications Programmer
- Systems Programmer
- Information Specialist
- Programmer Analyst
- Software Engineer
- Systems Analyst
- Systems Integrator
- Project Manager
- Computing Applications Specialist
- Web Developer
- Web Designer
- Webmaster
- Data Administrator
- Database Administrator
- Database Manager
- Database Operator
- Database Programmer
- Computer Technician
- Network Technician
- Network Administrator
- System Administrator
- System Operator
- System Manager
- Help Desk Technician
- Computing Support Specialist
- Applications Specialist

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## TRANSFER PREPARATION

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### Transfer Resources:

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

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# CISCO CCNA DISCOVERY

## ASSOCIATE DEGREE PROGRAM

### CISCO CCNA DISCOVERY MAJOR – A.S. DEGREE

Twenty-two to twenty-five (22.0-25.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (22.0-25.0 units)

CIS	160	CISCO IT Essentials: Hardware and Software	4.0
CIS	162	CISCO CCNA Discovery 1: Introduction to Networks	4.0
CIS	163	CISCO CCNA Discovery 2: Routing and Switching Essentials	4.0
CIS	164	CISCO CCNA Discovery 3: Scaling Networks	4.0
CIS	165	CISCO CCNA Discovery 4: Connecting Networks	4.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0-4.0

**Total Major Units**

**22.0-25.0**

## CERTIFICATE PROGRAM

### CISCO CCNA DISCOVERY CERTIFICATE

Twenty-two to twenty-five (22.0-25.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (22.0-25.0 units)

CIS	160	CISCO IT Essentials: Hardware and Software	4.0
CIS	162	CISCO CCNA Discovery 1: Introduction to Networks	4.0
CIS	163	CISCO CCNA Discovery 2: Routing and Switching Essentials	4.0
CIS	164	CISCO CCNA Discovery 3: Scaling Networks	4.0
CIS	165	CISCO CCNA Discovery 4: Connecting Networks	4.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0-4.0

**Total Certificate Units**

**22.0-25.0**

# COMMUNICATION STUDIES (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Communication Studies for Transfer (AA-T)

### DESCRIPTION

Communication Studies is a broad-based discipline concerned with the exchange of messages in interpersonal and mediated situations and with the impact of such exchanges on society. Courses focus on understanding the communication process and developing skills to communicate effectively. This associate's degree will also provide the student with the knowledge base in analytical, critical and practical skills that will help students to understand and improve communications practices and systems as they occur within and among individuals, groups, organizations and societies.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Students will be able to construct and articulate a basic case for a parliamentary debate.
2. Students will be able to recognize and avoid using ten logical fallacies during classroom presentations.
3. Students will be able to write and submit five properly-worded debate propositions.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Community Relations Director
- Organizational Trainer
- Organizational Newsletter Editor
- Public Information Specialist
- Media Technician
- Organizational Consultant
- Personnel Staff
- Public Service Agency Staff
- Corporate Media Director
- Communication Consultant
- Organizational Trainer and Developer
- Public Relations Professional
- Video Editor
- Video Producer or Director
- Health Educator
- Fund Raiser
- Multimedia Project Manager
- Community College Instructor
- Lobbyist
- Speech Writer
- Minister
- Media Sales and Promotion Staff
- Lawyer
- Politician
- Consumer Market Researcher
- Staff Analyst
- Focus Group Leader
- Political Campaign Staff
- Public Affairs Director
- Advertising Account Executive

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

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### FINANCIAL AID

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# COMMUNICATION STUDIES (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### COMMUNICATION STUDIES

Associate in Arts Degree in Communication Studies for Transfer (AA-T) – 18.0-19.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Eighteen to nineteen (18 -19) units required for the major.**

#### Required for the Major

COMM 100	Oral Communication	3.0
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<b>A. Select six (6) units from:</b>		<b>6.0</b>
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COMM 125	Interpersonal Communication (3.0)	
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COMM 130	Small Group Communication (3.0)	
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COMM 180	Argumentation and Debate (3.0)	
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<b>B. Select six to seven (6.0-7.0) units from:</b>		<b>6.0-7.0</b>
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*\*Any Section A course not used above*

*\*Any course that has articulation as lower division preparation for the communication studies major at a CSU.*

COMM 150	Intercultural Communication (3.0)	
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ENGL 102	Introduction to Literature (3.0)	
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ENGL 201	Advanced Composition (3.0)	
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HIST 110	Early Western Civilization (3.0)	
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HIST 111	Modern Western Civilization (3.0)	
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JRN 100	Introduction to Journalism (3.0)	
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MATH 119	Elementary Statistics (4.0)	
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PSY 144	The Psychology of Interpersonal Relationships (3.0)	
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<b>C. Select three (3) units from:</b>		<b>3.0</b>
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*\*Any Section A or B course not used above*

ANTH 102	Cultural Anthropology (3.0)	
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PSY 101	Introduction to Psychology (3.0)	
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SOC 101	Introduction to Sociology (3.0)	
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Total Major Units	18.0-19.0
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CSU-GE or IGETC Pattern	37.0-39.0
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Electives (as needed to reach 60 degree applicable units)	_____
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<b>Total Maximum Units:</b>	<b>60.0</b>
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# COMPUTER INFORMATION SYSTEMS

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

Computer Information Systems are the tools that facilitate the effective and efficient transformation of data into information. Careers in today's information systems require knowledge and hands-on experience in microcomputer applications, programming, operating systems, and networking. This program provides the lower division coursework for advanced degrees and should be followed if a student's goal is to transfer to a four-year institution for continued study in computer information systems. Since requirements vary at each four-year school, transfer students should consult with a counselor to develop a program for the specific school they wish to attend. The program in Computer Information Systems offers students an opportunity to earn an associate's degree as well as coursework in general CIS electives for students in other fields of study campus-wide.

### PROGRAM LEARNING OUTCOMES

1. Evaluate and interpret business and computer data and reach reasoned conclusions.
2. Communicate effectively to relevant populations.
3. Create computer programs using a program language that incorporates good design principles and meets specifications.

### ASSOCIATE DEGREE PROGRAM

The **Associate in Arts (AA)** or the **Associate in Science (AS)** Degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Programmer
- Applications Programmer
- Systems Programmer
- Information Specialist
- Programmer Analyst
- Software Engineer
- Systems Analyst
- Systems Integrator
- Project Manager
- Computing Applications Specialist
- Web Developer
- Web Designer
- Webmaster
- Data Administrator
- Database Administrator
- Database Manager
- Database Operator
- Database Programmer
- Computer Technician
- Computing Support Specialist
- Network Technician
- Network Administrator
- System Administrator
- System Operator
- System Manager
- Help Desk Technician
- Applications Specialist

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### TRANSFER PREPARATION

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# COMPUTER INFORMATION SYSTEMS

## ASSOCIATE DEGREE PROGRAM

### COMPUTER INFORMATION SYSTEMS MAJOR – A.S. DEGREE

Thirty (30.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the major (21.0 units)

BUS	126	Business and the Legal Environment	3.0
BUS	210	Principles of Financial Accounting	4.0
BUS	220	Principles of Managerial Accounting	4.0
CIS	101	Introduction to Information Systems	3.0
CIS	125	Excel II	1.0
ECON	101	Introduction to Micro Economics	3.0
ECON	102	Introduction to Macro Economics	3.0

#### Select six (6.0) programming units:

CIS	202*	Programming in Visual Basic (3.0)	
CIS	210*	Programming in C++ (3.0)	
CS	170*	Introduction to Unix/Linux (3.0)	
CS	221*	Introduction to Object-Oriented Programming in Java (3.0)	

#### II. Select at least three (3.0) elective units:

BUS	260	Business Communications (3.0)	
CIS	104	Introduction to Telecommunications (3.0)	
CIS	108	Computer Accounting (3.0)	
CIS	124	Excel I (1.0)	
CIS	128	Microsoft Access (1.0)	
CIS	137	Web Development Tools (3.0)	
CIS	155	Flash (3.0)	
CIS	160	CISCO IT Essentials: Hardware & Software (4.0)	
CIS	202*	Programming in Visual Basic (3.0)	
CIS	210*	Programming in C++ (3.0)	
CIS	212	Web Development Programming (3.0)	
CIS	214	PHP and MySQL (3.0)	
CS	170*	Introduction to Unix/Linux (3.0)	
CS	221*	Introduction to Object-Oriented Programming in Java (3.0)	
WE	201	Employment Readiness (1.0)	
WE	220	Internship (1.0-4.0)	

*\*If not used for section I. programming units.*

**Total Major Units**

**30.0**

# COMPUTER SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

Computer Science is the study of computer software design, development, and programming. Computer scientists seek to advance the fundamental understanding of how information is processed, as well as the practical design of software and hardware to accomplish specific functions. This Associate in Science degree requirements are designed to satisfy core requirements for many Computer Science transfer patterns. However, students should consult a counselor and especially the catalog of the intended transfer institution for specific transfer requirements in the major. Some transfer institutions require Physics for example.

### PROGRAM LEARNING OUTCOMES

1. Manage a programming project from start to finish, both individually and in teams.
2. Think critically and utilize qualitative and quantitative reasoning skills to design and implement an effective problem solution.
3. Apply algorithmic and symbolic thinking to the problem-solving process.

### ASSOCIATE DEGREE PROGRAM

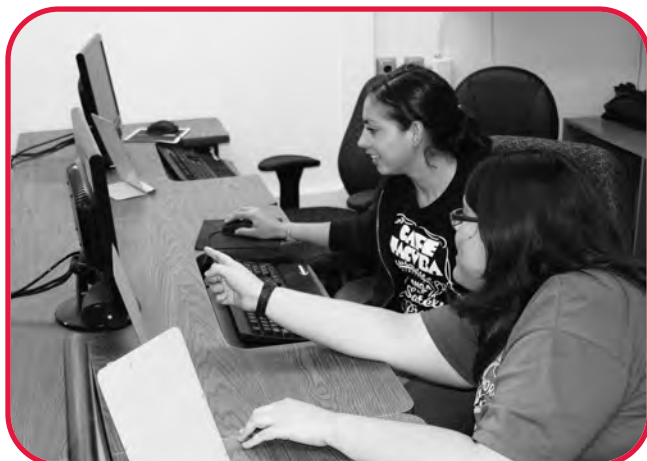
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### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Systems Programmer
- Software Designer
- Computer Researcher
- Systems Administrator
- Security Systems Designer
- Database Programmer
- Consultant
- Educator
- Documentation/Technical Writer
- Technical Sales and Marketing Specialist
- Scientific Application Programmer
- Computer Services Coordinator
- Computer Graphics Specialist
- Computer Scientist
- Computer Systems Analyst
- Technical Representative
- Teleprocessing Coordinator
- Data Processing Application Programmer
- Database Administrator
- Data Processing Manager
- Technical Product Support Personnel
- Management Information Specialist
- Computer Operations Manager
- Data Communications Manager
- Information Specialist
- Programmer Analyst
- Software Engineer
- Systems Manager
- Systems Programmer
- Technical Control Specialist
- Engineer Security Specialist
- Data Mining Analyst

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# COMPUTER SCIENCE

## ASSOCIATE DEGREE PROGRAM

### COMPUTER SCIENCE MAJOR – A.S. DEGREE

Twenty-seven (27.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.0 units)

CS	231	Introduction to Data Structures	3.0
CS	281	Assembly Language and Machine Organization	3.0
MATH	119	Elementary Statistics	4.0
MATH	192	Analytic Geometry and Calculus I	4.0
MATH	194	Analytic Geometry and Calculus II	4.0

#### II. Select a minimum of nine (9.0) units from the following courses to include at least one (1) mathematics course, and (1) science course

BIOL	180	General Biology: Molecules, Cells & Genetics (4.0)
BIOL	182	General Biology: Principles of Organismal Biology (4.0)
CHEM	200	General Inorganic Chemistry I (5.0)
CHEM	202	General Inorganic Chemistry II (5.0)
CS	170	Introduction to Unix/Linux (3.0)
MATH	230	Introduction to Linear Algebra with Applications (3.0)
MATH	240	Discrete Mathematics (3.0)
PHYS	200	General Physics I (4.0)
PHYS	202	General Physics II (4.0)
PHYS	204	General Physics III (4.0)

**Total Major Units**

**27.0**



# CORRECTIONAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

## DESCRIPTION

The Correctional Science program offers an Associate in Science Degree and a Certificate of Achievement. The program provides the foundational education required for an individual's career entry into the criminal justice field, specifically correctional operations and probation/parole case investigations. The courses range from concepts of criminal law, evidence, investigation and reporting to criminology, aspects of social change, and corrections investigations.

## PROGRAM LEARNING OUTCOMES

1. Identify the basic concepts between Probation and Parole and the role they play in the criminal justice arena.
2. Identify the methods used and the purposes of institutional safety and how it relates to the structure and organization of inmate control and supervision.
3. Identify the various kinds of interventions available and the techniques used in the industry.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities.

- Correctional Officer
- Security Guard

## Related Career Opportunities

- Fire Inspectors
- Fire Investigators
- Bailiffs
- Jailors
- Police Detectives
- Transit and Railroad Police
- Criminal Investigators
- Special Agents
- Immigration Inspectors
- Customs Inspectors
- Sheriffs
- Deputy Sheriffs
- Private Detectives
- Investigators

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## TRANSFER PREPARATION

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# CORRECTIONAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### CORRECTIONAL SCIENCE MAJOR – A.S. DEGREE

Twenty-four (24.0) units required for this major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the major (15.0 units)

AJ	108	Public Safety Report Writing (Formerly AJ 120)	3.0
CSI	100	Introduction to Corrections	3.0
CSI	104	Concepts of Probation and Parole	3.0
CSI	206	Correctional Interviewing and Counseling (Formerly CSI 106)	3.0
CSI	208	Control and Supervision of Inmates (Formerly CSI 108)	3.0

#### II. Select nine (9.0) units from the following courses:

AJ	100	Introduction to Administration of Justice (3.0)
AJ	102	Concepts of Criminal Law (3.0)
AJ	110	Law Enforcement Community Relations (3.0)
AJ	141	Arrest and Firearms (3.5)
AJ	222	Criminal Investigation (Formerly AJ 122) (3.0)
AJ	223	Juvenile Control (Formerly AJ 123) (3.0)

**Total Major Units**

**24.0**

## CERTIFICATE PROGRAM

### CORRECTIONAL SCIENCE CERTIFICATE

Twenty-five (25.0) units required for this certificate.

ALL COURSES FOR THE CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the certificate (19.0 units)

AJ	108	Public Safety Report Writing (Formerly AJ 120)	3.0
CSI	100	Introduction to Corrections	3.0
CSI	104	Concepts of Probation and Parole	3.0
CSI	206	Correctional Interviewing and Counseling (Formerly CSI 106)	3.0
CSI	208	Control and Supervision of Inmates (Formerly CSI 108)	3.0
ENGL	110	Composition and Reading	4.0

#### II. Select six (6.0) units from the following courses:

AJ	100	Introduction to Administration of Justice (3.0)
AJ	102	Concepts of Criminal Law (3.0)
AJ	110	Law Enforcement Community Relations (3.0)
AJ	141	Arrest and Firearms (3.5)
AJ	222	Criminal Investigation (Formerly AJ 122) (3.0)
AJ	223	Juvenile Control (Formerly AJ 123) (3.0)

**Total Certificate Units**

**25.0**

# DIESEL FARM MACHINERY AND HEAVY EQUIPMENT

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

This Certificate program is designed to prepare students for employment positions in the field of diesel technology. In this program, students will be maintaining, servicing, and repairing: agricultural hydraulic equipment, construction machines, train locomotives engines, farm tractors, stationary diesel engines and diesel powered highway transportation units. This program will be integrated with the automotive technology program by allowing students the opportunity to specialize in diesel and heavy equipment technology. In addition students will be able to operate diesel engines using alternative fuels such as biodiesel, compressed natural gas, liquefied natural gas, alcohols, hydrogen, and fuel cells. Upon successful completion of this diesel program, students are prepared to take the Automotive Service Excellence (ASE) Certification Exam in Diesel Engines (T2), Preventive Maintenance for tasks (T8), and Alternative Fuels (T6)

### PROGRAM LEARNING OUTCOMES

1. The student will be able to demonstrate safe operation of hand tools and equipment.
2. The student will be able to identify major agricultural equipment components, construction machines and transportation units.
3. The student will be able to diagnose major component failures, recommend repairs, and perform typical major component repairs.

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

### CAREER OPPORTUNITIES

- Farm Equipment Technician
- Bus Maintenance and Repair Technician
- Heavy Equipment Maintenance and Repair Technician
- Diesel Truck Maintenance and Repair Technician

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

# DIESEL FARM MACHINERY AND HEAVY EQUIPMENT

## CERTIFICATE PROGRAM

### DIESEL FARM MACHINERY AND HEAVY EQUIPMENT

Twenty-two (22) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	110	Engine Technology	4.0
AUT	140	Diesel Engine Maintenance and Repair	5.0
AUT	165	Diesel Preventive Maintenance and Inspection	5.0
AUT	240	Diesel Engine Tune-Up	3.0
AUT	285	Alternative Fuels for Diesel Engines	4.0
WE	201	Employment Readiness	1.0

**Total Certificate Units** **22.0**

# DIGITAL DESIGN AND PRODUCTION

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

### DESCRIPTION

The Digital Design and Production program is an interdisciplinary program that combines technical knowledge with design, communication, and problem solving skills. It includes software applications that allow a student to produce multimedia and graphics for a digital world. Career paths chosen by students pursuing undergraduate studies in Digital Design and Production commonly include graphic design, web and video production. Students learn how to process information and then make this information available to audiences via electronic media. The program provides students with the entry level competencies for employment which requires knowledge to produce a variety of computer, Web, and/or multimedia graphics, animation, sound and video production, and/or content materials. The program provides students with the ability to freelancer work from within small design firms to develop web pages and multimedia for small or large businesses.

### PROGRAM LEARNING OUTCOMES

1. Produce and present ideas visually and apply principles of development in multimedia.
2. Demonstrate visual techniques and design web page and web layouts with appropriate software that is technically and visually sound.
3. Create digital publications that are professionally designed and modified to fit the needs of clients.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Background Artist
- Content Development
- Digital Artist
- 3D Animator
- Game Artist
- Graphics Production
- Information Architect
- Web/Multimedia Development
- Instructional Designer
- Interface Design
- Layout Design
- Production Assistant
- Product Modeling
- Product Animator
- Storyboard Artist
- Video Designer
- Video Editing
- Video Production Assistant
- Webmaster
- Web Page Designer
- Web/Multimedia Programming

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# DIGITAL DESIGN AND PRODUCTION

## ASSOCIATE DEGREE PROGRAM

### DIGITAL DESIGN AND PRODUCTION MAJOR- A.S. DEGREE

Twenty-five/twenty-six (25.0-26.0) units for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (20.0 units)

ART	160	Graphic Design	3.0
CIS	137	Web Development Tools	3.0
CIS	149	Computer Graphics - Photoshop	3.0
CIS	150	Computer Graphics - Illustrator	3.0
CIS	155	Flash	3.0
CIS	180	Advanced Computer Graphics	3.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0

#### II. Select one course from the following:

ART	110	Design (3.0)	3.0
ART	260	Advertising/Graphic Design (3.0)	3.0
CIS	212	Web Development Programming (3.0)	3.0

#### II. Select one course from the following:

BUS	122	Business Plan Development (2.0)	2.0-3.0
BUS	144	Principles of Marketing (3.0)	3.0
BUS	260	Business Communications (3.0)	3.0

**Total Major Units**

**25.0 - 26.0**

## CERTIFICATE PROGRAM

### DIGITAL DESIGN AND PRODUCTION CERTIFICATE

Twenty-two / Twenty-three (22.0-23.0) units for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (20.0 units)

ART	160	Graphic Design	3.0
CIS	137	Web Development Tools	3.0
CIS	149	Computer Graphics - Photoshop	3.0
CIS	150	Computer Graphics - Illustrator	3.0
CIS	155	Flash	3.0
CIS	180	Advanced Computer Graphics	3.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0

#### II. Select one course from the following:

ART	110	Design (3.0)	3.0
ART	260	Advertising/Graphic Design (3.0)	3.0
BUS	122	Business Plan Development (2.0)	2.0-3.0
BUS	144	Principles of Marketing (3.0)	3.0
BUS	260	Business Communications (3.0)	3.0
CIS	212	Web Development Programming (3.0)	3.0

**Total Certificate Units**

**22.0-23.0**

# EARLY CHILDHOOD EDUCATION (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree in Early Childhood Education for Transfer (AS-T)

### DESCRIPTION

Early Childhood Education is the study of the physical, socio-emotional and cognitive growth and development of the child from conception through adolescence. The purpose of this major is to provide a sound academic program in child development and to prepare students to work with children and families in a variety of school and community settings. Early Childhood Education students pursue careers in day care and preschool teaching and administration; parent education; elementary school teaching; community college teaching; or work with a variety of counseling, social service and community agencies.

The Associate in Science in Early Childhood Education for Transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Exhibit grounding in a child development knowledge base.
2. Demonstrate knowledge in building relationships with children, family and community.
3. Observe, document, and assess to support young children and families.
4. Demonstrate developmentally effective approaches to create positive relationships and supportive interactions as the foundation in working with children and families from diverse societies.
5. Use content knowledge to build meaningful curriculum.
6. Demonstrate Professionalism.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Adoption Counselor
- Before and After School Teacher/Director
- Child Life Specialist
- Community College Instructor
- Counselor - Career,
- Counselor – Community
- Counselor – Marriage/Family/Child
- Counselor – School
- Early Childhood Special Education Specialist
- Elementary School Teacher
- Child Care Teacher/Director
- Infant Day Care Teacher/Director
- Parent Education Instructor
- Pediatric Psychologist
- Preschool Teacher/Administrator
- Resource and Referral Coordinator
- Social Worker

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# EARLY CHILDHOOD EDUCATION (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### EARLY CHILDHOOD EDUCATION

Associate in Science Degree in Early Childhood Education for Transfer (AS-T) – 25.0 units.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Associate Degree Major Core – 25.0 units**

CDEV	100	Principles & Practices of Teaching Young Children	3.0
CDEV	101	Health, Safety and Nutrition	3.0
CDEV	103	Children, Family and Community	3.0
CDEV/PSY	104	Child Growth and Development	3.0
CDEV	105	Introduction to Curriculum	3.0
CDEV	106	Observation and Assessment	3.0
CDEV	107	Teaching in a Diverse Society	3.0
CDEV	200	Practicum-Field Experience	4.0

Total Major Units	25.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	_____
<b>Total Maximum Units:</b>	<b>60.0</b>



# ELECTRICAL/ELECTRONIC AND AIR CONDITIONING SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

This program is designed to prepare students for entry level employment in the area of automotive electrical/electronic and air conditioning technology. The program will provide the necessary skills and knowledge through the use of modern tools and equipment to diagnose electrical and electronic circuits. Students will be prepared for employment in the following technical and professional fields: Electronic Engine Computer Control; Power Train Computer Control; Brake and Suspension Computer Control; and Air Conditioning Instrumentation Computer Control. Upon successful completion of this program, students will be prepared to take the Automotive Service Excellence (ASE) exams in Electrical/Electronic Systems (Test A6), and Heating and Air Conditioning (Test A7).

### PROGRAM LEARNING OUTCOMES

1. Identify and interpret electrical/electronic system concern; determine necessary action.
2. Use wiring diagrams during diagnosis of electrical circuit problems.
3. Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems.

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Jobs are available with auto repair dealerships, independent shops, and may even start their own business. Experienced technicians with leadership ability may advance to shop supervisors, service writers and service managers.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### FINANCIAL AID

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# ELECTRICAL/ELECTRONIC AND AIR CONDITIONING SPECIALIZATION

## CERTIFICATE PROGRAM

### ELECTRICAL/ELECTRONIC AND AIR CONDITIONING SPECIALIZATION

Eighteen (18) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	085	Automotive Maintenance and Repair	3.0
AUT	130	Automotive Electronics I	3.0
AUT	150	Automotive Electronics II	4.0
AUT	210	Automotive Air Conditioning	3.0
AUT	235	Auto Electrical/Electronic Instruments	3.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0

**Total Certificate Units**

**18.0**

# ELECTRICAL TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

Specialization Certificates in Electrical Wiring, Electronics, and Solar Energy

## DESCRIPTION

The Electrical Technology program offers an Associate in Science degree, Certificate of Achievement and Specialization Certificates that are designed to provide students with the comprehensive understanding and manipulative skills, technical knowledge, and related trade information required to become technicians or operators in industrial technology and energy related industries or light manufacturing equipment.

This program will allow students to comply with the necessary requirements for certification up to Grade I level. Once the student becomes a state certified operator, he or she will qualify to seek employment in the industrial technology disciplines anywhere in the State. Imperial Valley College has partial program certification from the Division of Labor Standards for Electrician Certification.

## PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of OSH safety practices required installation and repairs of electrical wiring.
2. Use written and verbal communication skills to related trade and technical information for blueprint.
3. Understand and demonstrate the necessary skills to become employed in the electrical field.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities.

- Electrical Installer
- Commercial Electrical Installer
- Electrical Maintenance Technician
- Electrician
- Industrial Maintenance Electrician
- Environmental Engineer
- Solar Engineer
- Electrical Engineer
- Environmental Scientist
- Environmental Engineer

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

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# ELECTRICAL TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### ELECTRICAL TECHNOLOGY MAJOR – A.S. DEGREE

Twenty (20.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (20.0 units).

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Card	3.0
ELTR	120	Electronic Devices	4.0
ELTR	140	Electronic Circuits & Semiconductor	4.0
EWIR	110	Electrical Principles	4.0
EWIR	115	Electrical Wiring and Protection	4.0
WE	201	Employment Readiness	1.0

**Total Major Units**

**20.0**

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## CERTIFICATE PROGRAM

### ELECTRICAL TECHNOLOGY CERTIFICATE

Twenty (20.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (20.0 units).

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Card	3.0
ELTR	120	Electronic Devices	4.0
ELTR	140	Electronic Circuits & Semiconductor	4.0
EWIR	110	Electrical Principles	4.0
EWIR	115	Electrical Wiring and Protection	4.0
WE	201	Employment Readiness	1.0

**Total Certificate Units**

**20.0**

# ELECTRICAL TECHNOLOGY

## SPECIALIZATION CERTIFICATES

The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Electrical Technology.

ALL COURSES FOR THESE CERTIFICATES MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### ELECTRICAL TECHNOLOGY: ELECTRICAL WIRING SPECIALIZATION - Major Plus 9.0 Units

Specialization Certificate in Electrical Wiring is designed to provide students and entry level operators seeking higher grade level and specific understanding and skills, technical knowledge, and related trade information on electrical installations. It will prepare students in electrical residential installations. Once the student finishes this program, he or she will qualify to seek employment in the electrical and energy sector anywhere in the State.

#### PROGRAM LEARNING OUTCOMES

1. Service and repair electrical appliances, overprotection devices.
2. Safety procedures to install and calculate capacities for light system, motors and transformers.
3. Internship.

#### I. The major plus nine (9.0) additional units in Electrical Wiring course work.

EWIR	125	Electrical Feeder Services and Circuits	4.0
EWIR	135	Electrical Equipment & Special Conditions	4.0
WE	220	Internship	1.0
Total Major Units			20.0
Electrical Technology: Electrical Wiring Specialization Units			9.0
<b>Total Certificate Units:</b>			<b>29.0</b>

### ELECTRICAL TECHNOLOGY: ELECTRONICS SPECIALIZATION - Major Plus 7.0 Units

Specialization Certificate in Electronics is designed to provide students and entry level operators seeking higher grade level and specific understanding and skills, technical knowledge, and related trade information on electronic equipment based on semiconductor devices and microchips, including data acquisition equipment and software for virtual instrumentation.

#### PROGRAM LEARNING OUTCOMES

1. Assembly Electronic Devices with Instrumentation Circuits.
2. Identify logic circuits used on computer and audiovisual equipment.
3. Take internship opportunities for work experience and job placement.

#### I. The major plus seven (7.0) additional units in Electronics course work.

ELTR	220	Digital Instrumentation Measurements	3.0
ELTR	240	Digital Logic Circuits	3.0
WE	220	Internship	1.0
Total Major Units			20.0
Electrical Technology: Electronics Specialization Units			7.0
<b>Total Certificate Units:</b>			<b>27.0</b>

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# ELECTRICAL TRADES

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

### DESCRIPTION

The Electrical Trades program offers the Associate of Science degree and a Certificate of Achievement to prepare students for continued education and training in any or all of the following electrical apprenticeship programs offered through the Imperial Irrigation District (IID): Electrical, Generation Mechanic, Lineman, Meter Technician, Systems Protection Technician, ADA/Telecommunications, and Substation. The associate degree and certificate requirements are equivalent to the first four courses of related supplemental instruction (RSI) which are part of the four-year apprenticeship certificate programs for which Imperial Valley College (IVC) is the local educational agency (LEA) and the Imperial Irrigation District (IID) is the sponsoring employer. Applicants for these apprenticeship programs should be directed to the Imperial Irrigation District located at 333 East Barioni Boulevard, Imperial, California 92251 (760-482-9640).



### PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of OSH standard safety procedures appropriate to the power utility industry. In addition, the student will use mathematical functions pertaining to 0 percentages, fractions, decimals, weights, measurements, algebraic equations, and fundamentals of geometry applicable to electrical and electronics.
2. Describe the functions and characteristic of transmission and distribution system and their components which consist of high voltage AC power, electrical diagrams, safety in the workplace, and a section on rope, rigging and hand signals.
3. Demonstrate and understand the basic introduction to framing, setting, guying poles, installation of conductors and grounds and the laying out and constructing of an underground line system.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities.

- Applications Engineer
- Apprentice
- Biomedical Engineer
- Communication Engineer
- Controls Engineer
- Computer Engineer
- Design Engineer
- ADA/Telecommunications Apprentice
- Electrical Apprentice
- Electronic Engineer
- Generation Apprentice
- Mechanic Apprentice
- Lineman Apprentice
- Meter Technician Apprentice
- Project Engineer
- Systems Protection Technician Apprentice
- Product Engineer
- Product Design Engineer
- Research Engineer
- Power Engineer
- Test Engineer
- Substation Apprentice
- Systems Engineer

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# ELECTRICAL TRADES

## ASSOCIATE DEGREE PROGRAM

### ELECTRICAL TRADES MAJOR – A.S. DEGREE

Nineteen (19.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (19.0 units)

BLDC	101	Safety Standards (Cal/OSHA) 30- Hour Card	3.0
ELTT	101	Electrical Trades I	4.0
ELTT	102	Electrical Trades II	4.0
ELTT	103	Electrical Trades III	4.0
ELTT	104	Electrical Trades IV	4.0

**Total Major Units** **19.0**

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## CERTIFICATE PROGRAM

### ELECTRICAL TRADES CERTIFICATE

Nineteen (16.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (19.0 units)

ELTT	101	Electrical Trades I	4.0
ELTT	102	Electrical Trades II	4.0
ELTT	103	Electrical Trades III	4.0
ELTT	104	Electrical Trades IV	4.0

**Total Certificate Units** **16.0**



# ELEMENTARY TEACHER EDUCATION (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Elementary Teacher Education for Transfer (AA-T)

### DESCRIPTION

The Associate in Arts in Elementary Teacher Education for Transfer Degree will provide the foundational knowledge to students who want to earn a Baccalaureate Degree in Liberal Studies and Integrated Teacher Education Programs. This major will provide an education experience which prepares students to think critically, write clearly and effectively, analyze evidence, and appreciate the differences between subject areas.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Students will understand the historical context of elementary education, including its relationship to contemporary society and culture.
2. Students will develop a comprehensive professional portfolio for the teaching profession.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

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Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

### CAREER OPPORTUNITIES

The Elementary Teacher Education major is specifically designed to prepare students in the multiple disciplines that teachers in the kindergarten through middle school grades must have studied. Thus it is framed for students who intend to become teachers in K-8 schools and is not recommended as a general major for those who wish to pursue a variety of career fields other than teaching.

- Elementary School Teacher
- Middle School Teacher

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# ELEMENTARY TEACHER EDUCATION (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### ELEMENTARY TEACHER EDUCATION

Associate in Arts Degree in Elementary Teacher Education for Transfer (AA-T)

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*

II. **General Education** – Must complete one of the following general education transfer patterns:  
 A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum  
 B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. **Forty-eight to Sixty (48-60) units required for the major.**

#### Required for the Major (42 units)

BIOL	100	Principles of Biological Science	4.0
CDEV/PSY	104	Child Growth and Development	3.0
COMM	100	Oral Communication	3.0
EDUC	200	Introduction to Elementary Classroom Teaching	3.0
ENGL	102	Introduction to Literature	3.0
ENGL	110	Composition and Reading	4.0
GEOG	108	World Regional Geography	3.0
GEOL	100	General Geology	4.0
GEOL	110	Earth and Space Science	3.0
HIST	100	Early World History	3.0
HIST	120	United States History: Prehistory to Reconstruction	3.0
MATH	110	Number Systems in Elementary Mathematics	3.0
POLS	102	American Government and Politics	3.0

#### List A: Select one course (3 units)

ENGL	201	Advanced Composition	3.0
READ	111	Reading IV: Analytical and Critical Reading	3.0

#### List B: Select one course (3 units)

ART	102	History of Art II	3.0
MUS	102	Introduction to Music Literature and Listening	3.0
THEA	100	Introduction to Theatre	3.0

#### List C: (0-12 additional units)

HE	102	Health Education	3.0
MATH	112	Geometry in Elementary Mathematics	3.0
MATH	114	Children's Mathematical Thinking	3.0
MUS	100	Introduction to Music	3.0
PE	211	Physical Education in the Elementary School	3.0

Total Major Units	18.0-19.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# EMERGENCY MEDICAL SERVICES

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)  
Certificate of Achievement

### DESCRIPTION

The Associate's Degree and Certificate of Achievement in Emergency Medical Services prepares the student for licensure as a Paramedic (EMT-P) and to care for the sick and injured at the scene of an emergency and/or during transport to a healthcare facility.

Acceptance into the program requires successful completion of the application process, high school diploma or GED, approval by the EMS Faculty Coordinator and the EMS Medical Director, current EMT certificate with at least one (1) year experience, current American Heart Association BLS/CPR certification, and for the applicant to be at least 18 years of age prior to any clinical experience. Contact the Nursing and Allied Health Department for more specifics

### PROGRAM LEARNING OUTCOMES

1. Students meet or exceed pass rates set for national licensing exam (National Registry).
2. Students meet or exceed pass rates set for national licensing skills exam (National Registry).
3. Students meet the minimal certification standards for ACLS, PALS, and BLS Instructor.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

The Emergency Medical Services Associate Degree and/or Certificate of Achievement prepares the student to apply for and qualify for licensure as a Paramedic (EPT-P) and to care for the sick and injured at the scene of an emergency and/or during transport to a healthcare facility.

- Paramedic

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# EMERGENCY MEDICAL SERVICES

## ASSOCIATE DEGREE PROGRAM

### EMERGENCY MEDICAL SERVICES MAJOR - A.S. DEGREE

Forty-one and one-half (41.5) units are required for this major.

The Associate's Degree in emergency medical services prepares the student for licensure as a Paramedic (EMT-P) and to care for the sick and injured at the scene of an emergency and/or during transport to a healthcare facility. Acceptance into the program requires: successful completion of the application process, high school diploma or GED, approval by the EMS Faculty Coordinator and the EMS Medical Director, current EMT certificate with at least one (1) year experience, current American Heart Association BLS/CPR certification, and for the applicant to be at least 18 years of age prior to any clinical experience. Contact the Nursing and Allied Health Department for more specifics.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

<b>I. Prerequisites for the major (7.5 units)</b>			
EMT	105	Emer. Medical Technician I (or state certification)	7.5
<b>II. Required courses for the major (38.5 units)</b>			
EMTP	200	EMT- Paramedic Didactic 1	9.0
EMTP	210	EMT- Paramedic Didactic 2	9.0
EMTP	215	EMT- Paramedic Didactic 3	5.0
EMTP	225	EMT- Paramedic Clinical 1	3.5
EMTP	235	EMT- Paramedic Field 1	6.5
EMTP	245	EMT- Paramedic Field 2	5.5
<b>III. Select one of the following acceptable courses for the major (3.0 units)</b>			<b>3.0</b>
BUS/AG	132	Business Management (3.0)	
BUS	136	Human Relations in Management (3.0)	
<b>Total Major Units</b>			<b>41.5</b>

## CERTIFICATE PROGRAM

### EMERGENCY MEDICAL SERVICES CERTIFICATE

Thirty-eight and one-half (38.5) units required for the certificate.

The certificate program prepares the student for licensure as a Paramedic (EMT-P) and to care for the sick and injured at the scene of an emergency and/or during transport to a healthcare facility. Acceptance into the program requires successful completion of the application process, high school diploma or GED, approval by the EMS Faculty Coordinator and the EMS Medical Director, current certification as an EMT certificate with at least one (1) year experience, current American Heart Association BLS/CPR certification, and for the applicant to be at least 18 years of age prior to any clinical experience. Contact the Nursing and Allied Health Department for more specifics.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

<b>I. Prerequisites for the certificate (7.5 units)</b>			
EMT	105	Emer. Medical Technician I (or state certification)	7.5
<b>II. Required courses for the certificate (38.5 units)</b>			
EMTP	200	EMT- Paramedic Didactic 1	9.0
EMTP	210	EMT- Paramedic Didactic 2	9.0
EMTP	215	EMT- Paramedic Didactic 3	5.0
EMTP	225	EMT- Paramedic Clinical 1	3.5
EMTP	235	EMT- Paramedic Field 1	6.5
EMTP	245	EMT- Paramedic Field 2	5.5
<b>Total Certificate Units</b>			<b>38.5</b>

# ENERGY EFFICIENCY TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

### DESCRIPTION

The Energy Efficiency Technology Associate in Science Degree and Certificate are designed to provide instruction in manipulative skills, technical knowledge, and technical information from the Building Performance Institute, which will prepare the student for employment in energy efficiency, home performance and energy auditing with emphasis in green building retrofits. The course work for the associate degree also emphasizes subject areas that are significant to the construction worker such as building sciences, environmental sciences, and the development of analytical and communication skills through the general education requirements.

### PROGRAM LEARNING OUTCOMES

1. Calculate the quantities of air leakage in cubic feet per minute using the following formula.
2. Create a reliable cost estimate for insulating an attic with loose fill insulation based on square footage.
3. Students will perform a duct blaster test to determine leakage of a system.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities. Green Careers also exist in fields such as Hydrology (Water), Solar, Geo-Science, Ecology, Wind Energy, Infrastructure/Green Building, Atmospheric Science and Geothermal.

- Green Architect
- Business Development
- Construction
- Technician
- Engineering
- Energy Optimization Specialist
- Energy and Utilities Consultant
- Energy Auditor/Designer
- Installer
- Solar Energy Engineer
- Manager
- Marketing
- Energy & Environmental Specialist
- Sales
- Field Services Technician
- Finance

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) – UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> – Western Undergraduate Exchange Programs

### FINANCIAL AID

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# ENERGY EFFICIENCY TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### ENERGY EFFICIENCY TECHNOLOGY MAJOR – A.S. DEGREE

Twenty-four (24.0) units are required for this major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the major (24.0 units)

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Cards	3.0
BLDC	110	Construction Blueprints, Specifications, Measurements and Codes	3.0
BLDC	115	Energy Fundamentals	3.0
BLDC	155	Solar Thermal and Water Efficiency	3.0
BLDC	170	Essentials of Efficient Green Construction	3.0
BLDC	175	Home Performance Retrofits	3.0
ENVS/AG	110	Environmental Science	3.0
RNEW	150	Solar Energy Systems PV1	3.0

**Total Major Units**

**24.0**

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## CERTIFICATE PROGRAM

### ENERGY EFFICIENCY TECHNOLOGY CERTIFICATE

Twenty-four (24.0) units are required for this certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

#### I. Required courses for the certificate (24.0 units)

BLDC	101	Safety Standards (Cal/OSHA) 30-Hour Cards	3.0
BLDC	110	Construction Blueprints, Specifications, Measurements and Codes	3.0
BLDC	115	Energy Fundamentals	3.0
BLDC	155	Solar Thermal and Water Efficiency	3.0
BLDC	170	Essentials of Efficient Green Construction	3.0
BLDC	175	Home Performance Retrofits	3.0
ENVS/AG	110	Environmental Science	3.0
RNEW	150	Solar Energy Systems PV1	3.0

**Total Certificate Units**

**24.0**

# ENGINE PERFORMANCE AND DRIVABILITY SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

The Engine Performance and Drivability Specialization Certificate of Achievement program is designed to prepare students for entry level employment in the area of engine performance and drivability. The program will provide the necessary skills, through the use of modern tools and equipment, to diagnose and repair engines using the latest technology applications. In addition, students will learn to use electronic diagnostic equipment to measure computer engine electronic systems parameters. This program will prepare students for employment in the following fields: engine performance, engine tune-up, and engine electronic and general instrumentation diagnostics. In addition, the students will gain the necessary knowledge and preparation to pursue the State of California Emission Control License. Upon successful completion of this program, students will be prepared to take Automotive Service Excellence (ASE) exams in Engine Performance (Test A8), Electronic System (Test A6), Advanced Engine Performance (Test L1) and the State of California Emission Control License.

### PROGRAM LEARNING OUTCOMES

1. Identify and interpret engine performance concern; determined necessary action.
2. Retrieve and record diagnostic trouble codes, OBD monitor status, and freeze and frame data; clear codes when applicable.
3. Diagnose emissions or driveability concerns without store diagnostic trouble codes; determined necessary action.
4. Research applicable vehicle and service information such as engine management system operation, vehicle service history, service precautions, and service technical bulletins.
5. Locate and interpret vehicle and major component identification numbers.
6. Check for module communication (including CAN/BUS systems) errors using a scan tool.

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Jobs opportunities are available with auto repair dealerships, independent shops, and may even start their own business.

Experienced technicians with leadership ability may advance to shop supervisors, service writers, smog check technicians, and service managers.

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# ENGINE PERFORMANCE AND DRIVABILITY SPECIALIZATION

## CERTIFICATE PROGRAM

### ENGINE PERFORMANCE AND DRIVABILITY SPECIALIZATION

Twenty-two (22) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	130	Automotive Electronics I	3.0
AUT	150	Automotive Electronics II	4.0
AUT	160	Engine Performance Tune-Up	3.0
AUT	170	Engine Diagnosis and Repair	3.0
AUT	230	Emissions Control & Computer Systems	3.0
AUT	231	Auto Emission Control System	4.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0
<b>Total Certificate Units</b>			<b>22.0</b>



# ENGINE REPAIR AND MACHINIST SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

The Engine Repair and Machinist Specialization Certificate of Achievement program is designed to prepare students for employment as Engine Repair and Machinist Specialists. The program will provide the necessary skills and knowledge through the use of modern tools and equipment to repair automotive engines and perform specialty work in machine shops. Students will learn to use honing and boring machines and motor balancing. Students will be working with high performance engines as well as using blueprint measurements. This program will prepare students for employment in the following fields: general mechanics, engine specialist, engine machinist specialist and high performance engine applications. In addition, the students will gain the necessary knowledge and preparation to pursue the State of California Emission Control License. Upon successful completions of this program, students will be prepared to take the Automotive Service Excellence (ASE) exams for Engine Repair (Test A1), and Machinist Specialist (M1, M2, and M3).

### PROGRAM LEARNING OUTCOMES

1. Demonstrate safe operation of hand tools and equipment.
2. Identify major machine shop equipment components, construction machines and high power units.
3. Diagnose major component failures and recommend repairs.
4. Perform typical major component repairs.

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Jobs are available with auto repair and machine shops as general mechanics, engine specialists, engine machinist specialists and high performance engine applications. Experienced technicians with leadership ability may advance to shop supervisors, service writers and service managers.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# ENGINE REPAIR AND MACHINIST SPECIALIZATION

## CERTIFICATE PROGRAM

### ENGINE REPAIR AND MACHINIST SPECIALIZATION

Twenty-two (22) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	075	Basic Shop Skills	3.0
AUT	110	Engine Technology	4.0
AUT	120	Automotive Machine Shop	4.0
AUT	122	High Performance Engine Blueprinting I	4.0
WELD	100	Welding Technology	5.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0
<b>Total Certificate Units</b>			<b>22.0</b>

# ENGLISH (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

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

### DESCRIPTION

English is an academic discipline focusing on the development of language skills through composition, critical thinking, and the study of literature of the English language and of literature in translation as it bears upon British or American literature. It also embraces the study of linguistics, expository and creative writing and critical and analytical reading. A major in English equips the student with a wide variety of intellectual skills and correlated career opportunities.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate command of rules regarding plagiarism and academic ethics.
2. Explicate and evaluate textual material in literature and rhetoric.
3. Produce an effective research paper using logical reasoning and analysis.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Advertising Researcher
- Civil Servant
- Technical Writer
- Contract Specialist
- Journalist
- Business Administrator
- Diplomat
- Information Specialist
- Interpreter
- Librarian
- Methods Analyst
- Public Relations
- Editor/Evaluator
- Insurance Examiner
- Lawyer
- Writer
- Lexicographer
- Manager
- Program Developer
- Publisher
- Teacher
- Writing Consultant
- Advertising Person
- Arts Program Administrator
- Business Administrator
- Columnist/Journalist
- Creative Writer
- Drama/Film Critic
- Film/TV Scriptwriter
- Legislative Assistant
- Public Relations Person
- Researcher

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# ENGLISH (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### ENGLISH

Associate in Arts Degree in English for Transfer (AA-T) – 18.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Eighteen (18) units required for the major.**

#### A. Required for the Major

ENGL	102	Introduction to Literature	3.0
ENGL	201	Advanced Composition	3.0

#### B. Select six (6) units from:

ENGL	220	Survey of American Literature I (3.0)	
ENGL	221	Survey of American Literature II (3.0)	
ENGL	222	Survey of World Literature (3.0)	
ENGL	223	Survey of World Literature (3.0)	
ENGL	224	Survey of British Literature I (3.0)	
ENGL	225	Survey of British Literature II (3.0)	

#### C. Select three (3) units from:

*\*Any course from Section B (above) not already used or any English course that has articulation as lower division preparation for the English major at a CSU.*

ENGL	226	Introduction to Mythology (3.0)	
or			
HUM	226	Introduction to Mythology (3.0)	
ENGL	250	Creative Writing (3.0)	

#### D. Select a minimum of three (3) units from:

*\*Any course from Section B or C (above) not already used, any CSU transferable English course, any language courses other than English which is articulated to fulfill CSU GE Area C, or any CSU transferable literature course offered in another department. Foreign Language - See Transfer Institution*

BUS	260	Business Communications (3.0)	
ENGL	270	Introduction to Linguistics (3.0)	
FILM	230	Introduction to Film History and Criticism (3.0)	
HUM	100	Intro to the Humanities (3.0)	
THEA	100	Introduction to Theatre (3.0)	

Total Major Units	18.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# FIRE TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

## DESCRIPTION

Fire Technology involves the study of fire behavior, protection and control techniques, including the understanding of the environment and ecology systems involved. The Fire Technology program is designed to prepare students for entry-level status in public or private fire protection agencies, to survey career options and opportunities, and to upgrade fire personnel.



## PROGRAM LEARNING OUTCOMES

1. Students will be able to apply emergency incident management strategies in relationship to incident command systems in public and private fire protection careers.
2. Students will demonstrate management concepts and practices including decision making, leader styles, personnel evaluations & counseling techniques. Assessment: Exams and reports for FIRE 229.
3. Demonstrate knowledge of the different types of non-water based fire suppression systems and how each is used to extinguish fire.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

- City and County Fire Department Personnel
- Forestry Fire Control

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

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[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# FIRE TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### FIRE TECHNOLOGY MAJOR – A.S. DEGREE

Thirty-three (33.0) units are required for this major.

The Associate Degree in fire technology is designed to expand skills/knowledge in the areas of building and life safety, fire prevention, and fire protection services for the transition from Firefighter to Fire Officer. Thirty-three (33) units are required for this major. Completion of six (6) core courses recommended prior to commencing 200 courses. Contact the Nursing and Allied Health Division for more specifics.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.0 units)

FIRE	100	Fire Protection Organization	3.0
FIRE	101	Fire Prevention Technology	3.0
FIRE	102	Fire Protection Equipment & Systems	3.0
FIRE	103	Building Construction for the Fire Protection	3.0
FIRE	104	Fire Behavior and Combustion	3.0
FIRE	108	Fire & Emergency Services Safety and Survival	3.0

#### II. Select 15.0 units from the following acceptable courses for the major

AJ	108*	Public Safety Report Writing (3.0)	
CIS	101	Introduction to Information Systems (3.0)	
FIRE/EMT*	105*	Emergency Medical Technician I (7.5)	
FIRE	109*	Hazardous Materials 1st Responder (2.0)	
FIRE	220**	Fire Apparatus 1A (2.5)	
FIRE	221**	Fire Apparatus 1B (2.5)	
FIRE	222**	Fire Investigation 1A (2.5)	
FIRE	223**	Fire Investigation 1B (2.5)	
FIRE	231**	Incident Command System (ICS 300) (1.5)	
FIRE	240**	Training Instructor 1A (1.5)	
FIRE	241**	Training Instructor 1B (1.5)	
FIRE	242**	Training Instructor 1C (1.5)	

\* Recommended – AJ 108, FIRE/EMT 105, and FIRE 109

\*\* FOR FIRE 220 – 242: Core courses required. Fire Fighter II and/or experience requirement as mandated by State Fire Training Course Information and Required Materials Manual, California Department of Forestry and Fire Protection, May 2008.

**Total Major Units**

**33.0**

# FIRE TECHNOLOGY

## CERTIFICATE PROGRAM

### FIRE TECHNOLOGY CERTIFICATE

Thirty-three (33.0) units are required for this certificate.

This certificate is designed to expand skills/knowledge in the areas of building and life safety, fire prevention, and fire protection services and for the transition from Firefighter to Fire Officer.

Thirty-three (33) units are required for this certificate. Completion of six (6) core courses is recommended prior to commencing 200 courses. Contact the Nursing and Allied Health Division for more specifics.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (18.0 units)

FIRE	100	Fire Protection Organization	3.0
FIRE	101	Fire Prevention Technology	3.0
FIRE	102	Fire Protection Equipment & Systems	3.0
FIRE	103	Building Construction for the Fire Protection	3.0
FIRE	104	Fire Behavior and Combustion	3.0
FIRE	108	Fire & Emergency Services Safety and Survival	3.0

#### II. Select 15.0 units from the following acceptable courses for the certificate

AJ	108*	Public Safety Report Writing	3.0
CIS	101	Introduction to Information Systems	3.0
FIRE/EMT*	105*	Emergency Medical Technician I	7.5
FIRE	109*	Hazardous Materials 1st Responder	2.0
FIRE	220**	Fire Apparatus 1A	2.5
FIRE	221**	Fire Apparatus 1B	2.5
FIRE	222**	Fire Investigation 1A	2.5
FIRE	223**	Fire Investigation 1B	2.5
FIRE	231**	Incident Command System (ICS 300)	1.5
FIRE	240**	Training Instructor 1A	1.5
FIRE	241**	Training Instructor 1B	1.5
FIRE	242**	Training Instructor 1C	1.5

\* Recommended – AJ 108, FIRE/EMT 105, and FIRE 109

\*\* FOR FIRE 220 – 242: Core courses required. Fire Fighter II and/or experience requirement as mandated by State Fire Training Course Information and Required Materials Manual, California Department of Forestry and Fire Protection, May 2008.

**Total Certificate Units**

**33.0**

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# FIREFIGHTER I

## DEGREES, CERTIFICATES AND AWARDS

### Certificate of Achievement

#### DESCRIPTION

The Firefighter I Certificate of Achievement program will cover the principles, procedures, and techniques of firefighting and rescue. Technical and manipulative skills and concepts of fire control, fire behavior, tactics and strategy, and emergency management will be reviewed and put into practice during this program. The student will be trained according to the standards of the Office of State Fire Marshall (OSFM) and National Fire Protection Association (NFPA). Students completing this certificate program will be qualified to test for employment with agencies and departments hiring entry level firefighters.



#### PROGRAM LEARNING OUTCOMES

1. Students will demonstrate knowledge and appropriate use of fire equipment for a given firefighting scenario.
2. Students will demonstrate appropriate selection and implementation of firefighting methods and application of the Incident Command and Emergency Management Systems.
3. Students will demonstrate knowledge of the Unified Command system and use of its branches and divisions.

#### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

#### FINANCIAL AID

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#### CAREER OPPORTUNITIES

- City and County Fire Department Personnel
- Forestry Fire Control

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

# - FIREFIGHTER I

## CERTIFICATE PROGRAM

### FIREFIGHTER I CERTIFICATE

Twenty-two and one-half (22.5) units required for the certificate.

Successful completion of this certificate will meet the educational requirements for a California State FireMarshall Firefighter I Certificate. Upon completion of the certificate program the candidate is required to be affiliated with a fire agency for one year of parttime/volunteer or 6 months of full-time work experience as a firefighter to meet the requirement of work experience. The candidate's work experience must be verified by the agency's Fire Chief with a written letter to the California State Fire Marshall.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required for the certificate (25.5 units)

FIRE	140	Fire - First Responders	9.5
FIRE	142	Firefighter Academy 1	10
FIRE	144	Firefighter Academy 2	3

#### Total Certificate Units

**22.5**

# FRENCH

## DEGREES, CERTIFICATES AND AWARDS

Associate in Art Degree (A.A.)

### DESCRIPTION

The French program helps prepare its majors and minors for careers not only in teaching but in many other fields as well, such as business, journalism and government service. To that end it offers courses that enable students to grow intellectually and to live and work successfully in areas where the French language is spoken.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate the ability to communicate with native speakers of French.
2. Demonstrate cultural awareness.

### ASSOCIATE DEGREE PROGRAM

The **Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

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### FINANCIAL AID

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### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Trade and Commerce
- Export/Import
- Interpreter/Translator
- Banking Representative
- Buyer/Sales Representative
- Foreign/Diplomatic Service
- International Business Personnel
- Airlines Personnel
- Travel Industry
- Media Personnel
- Foreign Correspondent
- Public Relations
- U.S. Immigration/Customs
- Foreign Publications/Textbook Editor
- U.S. Information Agency
- Peace Corps
- Language Teacher
- Bilingual/Foreign Secretary
- Research Assistant

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# FRENCH

## ASSOCIATE DEGREE PROGRAM

### FRENCH MAJOR – A.A. DEGREE

Twenty (20.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR HIGHER.

#### I. Required courses for the major (20.0 units)

FREN	100	Elementary French I	5.0
FREN	110	Elementary French II	5.0
FREN	201	Intermediate French I	5.0
FREN	211	Intermediate French II	5.0

**Total Major Units**

**20.0**

# GENERAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

The Associate of Science General Sciences degree emphasizes the role of science, scientific inquiry and technology in our world. Students will apply a problem solving strategy such as the scientific method or other systematic process of inquiry and recognize the contributions of science and technology in our world. This program provides a broad study in the fields of biological and physical sciences in preparation for transfer to a four-year program and continuation of studies in upper division science courses in fields of anthropology, astronomy, biology, chemistry, environmental science, geography, geology, engineering and physics.

The most reliable guide for appropriate course combinations in this major will be the catalog from the specific college to which the student will transfer. Please see a counselor for assistance.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate understanding of scientific inquiry. Explain and apply the scientific method.
2. Provide experimental foundation for concepts introduced during lecture. Develop quantitative and qualitative skills of data analysis and ability to observe, interpret, communicate and synthesize various types of information from diverse sources.
3. Develop an understanding and appreciation of the natural world and interactions between and among Earth's systems (biosphere, hydrosphere, atmosphere and geosphere) and beyond (exosphere).

### ASSOCIATE DEGREE PROGRAM

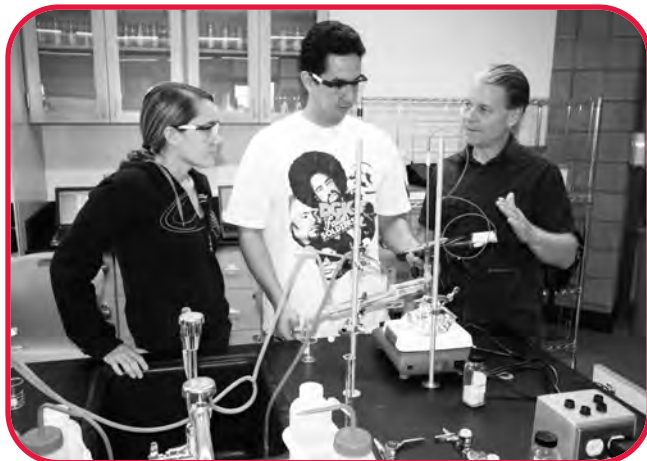
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### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Astronomer
- Biologist
- College Teacher
- Elementary Teacher
- Secondary Teacher
- Scientific Researcher
- Lab Technician
- Field Writer
- Scientific Writer
- Chemist
- Environmentalist
- Physicist
- Geographer
- Geologist
- Engineer
- And many more!

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) – UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# GENERAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### GENERAL SCIENCE MAJOR – A.S. DEGREE

Eighteen (18.0) units minimum required for this major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required for the major (18.0 units)

##### AREA I – Select one (1) course from the following:

ANTH	100	Physical Anthropology	3.0
BIOL	100	Principles of Biological Science	4.0
BIOL	120	General Zoology I	4.0
BIOL	122	General Zoology II	4.0
BIOL	140	General Botany	3.0
BIOL	150	Human Genetics	3.0
BIOL	180	General Biology: Molecules, Cells, and Genetics	4.0
BIOL	182	General Biology: Principles of Organismal Biology	4.0

##### AREA II – Select one (1) course from the following:

ASTR	100	Principles of Astronomy	3.0
CHEM	100	Introduction to Chemistry	4.0
CHEM	160	Introduction to General, Organic & Biochemistry	5.0
ENVS/AG	110	Environmental Science	3.0
GEOG	100	Physical Geography	3.0
GEOL	100	General Geology	4.0
GEOL	110	Earth and Space Science	3.0
GEOL	130	Climate and Weather	3.0
PHSC	110	Physical Science	3.0

##### AREA III – Select remaining courses from the following to reach eighteen (18.0) units:

BIOL	200	Human Anatomy & Physiology I	4.0
BIOL	202	Human Anatomy & Physiology II	4.0
BIOL	204	Human Anatomy	4.0
BIOL	206	Human Physiology	4.0
BIOL	220	General Microbiology	5.0
CHEM	200	General Inorganic Chemistry I	5.0
CHEM	202	General Inorganic Chemistry II	5.0
CHEM	204	Organic Chemistry I	5.0
CHEM	206	Organic Chemistry II	5.0
CS	221	Introduction to Object Oriented Programming in Java	3.0
MATH	190	Pre-Calculus	5.0
MATH	192	Analytic Geometry and Calculus I	4.0
MATH	194	Analytic Geometry and Calculus II	4.0
MATH	210	Multivariable Calculus	4.0
PHYS	200	General Physics I	4.0
PHYS	202	General Physics II	4.0
PHYS	204	General Physics III	4.0

**Total Major Units**

**18.0**

# HISTORY (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in History for Transfer (AA-T)

### DESCRIPTION

History is the study of all human experience. It examines the people, institutions, ideas, and events of the past. The study of history contributes to cultural literacy, global awareness, and develops critical thinking skills, while helping students understand the present. Historical study provides a solid, fundamental preparation for careers in business, industry, government, and education. It also serves as excellent preparation for law school, Foreign Service, international work, urban affairs, and library science. History is an academic discipline offering both breadth and focus. While it can be valuable for those going into other professions, it also produces a person capable of handling many different jobs and positions where critical analytical skills are in demand.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Identify and recall key information from a historical text and be able to describe the causes and/or impact of historical events.
2. Analyze and evaluate historical texts and differentiate between the facts and the author's interpretation and main thesis.
3. Write an original research paper that includes a bibliography of primary and secondary historical sources and explains different historical interpretations.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Historian
- Pre-Law/Lawyer
- Foreign Service
- Teacher
- Archivist
- Researcher/Research Analyst
- Museum Curator
- State Park Historian
- Librarian
- Businessperson
- Writer
- Consultant
- Market Research
- Travel
- Historical Societies
- Journalist
- Communications

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

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# HISTORY (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### HISTORY

Associate in Arts Degree in History for Transfer (AA-T) – 18.0-20.0 units

#### REQUIREMENTS FOR THE DEGREE

I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*

II. **General Education** – Must complete one of the following general education transfer patterns:  
 A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum  
 B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. **Eighteen to Twenty (18-20) units required for the major.**

#### Required for the Major (6 units)

HIST	120	United States History: Prehistory to Reconstruction	3.0
HIST	121	United States History: Reconstruction to Present	3.0

**List A: Select two (6 units):** **6.0**

*Select one from:*

HIST	100	Early World History (3.0)
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**OR**

HIST	110	Early Western Civilizations (3.0)
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**AND**

*Select one from:*

HIST	101	Modern World History (3.0)
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**OR**

HIST	111	Modern Western Civilizations (3.0)
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**List B: Select one course from each area (6-8 units):** **6.0-8.0**

#### Area 1 (3-5 units):

AIS/ANTH	106	Indians of North America (3.0)
AIS/ANTH	108	Indians of the Southwest (3.0)
ARAB	100	Elementary Arabic (5.0)
ART	106	Women Artists (3.0)
ENGL	223	Survey of World Literature (3.0)
ENGL/HUM	226	Introduction to Mythology (3.0)
FREN	100	Elementary French I (5.0)
FREN	110	Elementary French II (5.0)
FREN	201	Intermediate French I (5.0)
FREN	211	Intermediate French II (5.0)
FREN	230	Intermediate Conversational French I (3.0)
GEOG	108	World Regional Geography (3.0)
HIST	100*	Early World History (3.0)
HIST	101*	Modern World History (3.0)
HIST/LAS	130	Early Latin America (3.0)
HIST/LAS	131	Modern Latin America (3.0)
HIST/LAS	132	History of Mexico (3.0)
HIST	140	East Asian History (3.0)
HIST	150	Survey of African History (3.0)
HIST	160	Middle East from 600 (3.0)
HIST	220	Women in American History (3.0)
HIST/LAS	225	Mexican American History (3.0)
HUM/SPAN	262	Introduction to Chicano/a Studies (3.0)
POLS	106	Introduction to International Relations (3.0)
RELS	100	Religions of the Modern World (3.0)
SPAN	100	Elementary Spanish I (5.0)
SPAN	110	Elementary Spanish II (5.0)
SPAN	200	Intermediate Spanish I (5.0)
SPAN	210	Intermediate Spanish II (5.0)
SPAN	220	Bilingual Spanish I (5.0)
SPAN	221	Bilingual Spanish II (5.0)
SPAN	222	Bilingual Oral Spanish (3.0)
SPAN	225	Introduction to Spanish American Literature (3.0)



# HISTORY (For Transfer)

## Area 2 (3 units):

ANTH	102	Cultural Anthropology (3.0)
ANTH	120	Introduction to Archaeology (3.0)
ART	100	History of Art I (3.0)
ART	102	History of Art II (3.0)
ART	104	History of Modern Art (3.0)
ECON	101	Introduction to Microeconomics (3.0)
ECON	102	Introduction to Macroeconomics (3.0)
FILM	230	Introduction to Film History and Criticism (3.0)
GEOG	102	Cultural Geography (3.0)
HIST	100*	Early World History (3.0)
HIST	101*	Modern World History (3.0)
HIST	110*	Early Western Civilizations (3.0)
HIST	111*	Modern Western Civilizations (3.0)
HIST/LAS	130*	Early Latin America (3.0)
HIST/LAS	131*	Modern Latin America (3.0)
HIST/LAS	132*	History of Mexico (3.0)
HIST	140*	East Asian History (3.0)
HIST	150*	Survey of African History (3.0)
HIST	160*	Middle East from 600 (3.0)
HIST	220*	Women in American History (3.0)
HIST	222	History of California (3.0)
HIST/LAS	225*	Mexican American History (3.0)
HUM	100	Introduction to Humanities (3.0)
HUM/SPAN	262*	Introduction to Chicano/a Studies (3.0)
MUS	200	History and Literature of Music I (3.0)
MUS	202	History and Literature of Music II (3.0)
PHIL	100	Introduction to Philosophy I (3.0)
PHIL	102	Introduction to Philosophy II (3.0)
POLS	100	Introduction to Political Science (3.0)
PSY	101	Introduction to Psychology (3.0)
SOC	101	Introduction to Sociology (3.0)

\*If not used from List A or List B Area 1

Total Major Units	18.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

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# HUMANITIES

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree (A.A.)

### DESCRIPTION

The Associate of Arts degree in Humanities is an interdisciplinary program that integrates several different academic traditions. The program offers students a rare opportunity to discover the heritage of art, culture, and learning through lectures and readings of great texts; make connections between ideas in the past and issues in the present; and improve skills in critical reading, listening, writing, and discussion.

### PROGRAM LEARNING OUTCOMES

1. Student will be able to think critically in reading about topics in philosophy, religion, art and music, thereby identifying problems.
2. Demonstrate an awareness of the impact of societal expectations and behaviors on individuals and cultures.
3. Analyze, discuss and debate the impact on the development of theory and cultural practices.

### ASSOCIATE DEGREE PROGRAM

The Associate in Arts (AA) or the Associate in Science (AS) Degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

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### FINANCIAL AID

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### CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities.

- Banking
- Businessperson
- Communications
- Consultant
- Counseling
- Creative Writing
- Education
- Foreign Service
- Government
- Human Service Careers
- Journalist
- Law
- Librarian
- Library Science
- Literary Research
- Ministry
- Museum Work
- Pre-Law/Lawyer
- Pre-Theology/Clergy
- Publishing
- Public Relations
- Teaching
- Theology
- Travel
- Writer

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# HUMANITIES

## ASSOCIATE DEGREE PROGRAM

### HUMANITIES MAJOR – A.A. DEGREE

Twenty-four (24.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required for the major (24.0 units)

##### A. Three (3.0) units required from the following:

HUM	100	Introduction to Humanities	3.0
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##### B. Must select six (6.0) units from the following:

ART	100*	History of Art I	3.0
ART	102*	History of Art II	3.0
ART	104*	History and Appreciation of Modern Art	3.0
ART	106*	Woman Artists	3.0
MUS	200*	History and Literature of Music I	3.0
MUS	202	History and Literature of Music II	3.0

##### C. Must select six (6.0) units from the following:

ART	100*	History of Art I	3.0
ART	102*	History of Art II	3.0
ART	104*	History and Appreciation of Modern Art	3.0
ART	106*	Woman Artists	3.0
ART	110	Design	3.0
ART	120	Drawing I	3.0
ART	262	Gallery Display	3.0
MUS	100	Introduction to Music Foundations	3.0
MUS	102	Introduction to Music Literature and Listening	3.0
MUS	110	Beginning Musicianship	2.0
MUS	120	Beginning Harmony	3.0
MUS	156	College-Community Chorus	1.0
MUS	171	Chamber Orchestra	1.0
MUS	172	Community Band	1.0
MUS	175	Instrumental Ensemble	1.0
MUS	178	Symphony Orchestra	1.0
MUS	200*	History and Literature of Music I	3.0

##### D. Must select three (3.0) units from the following:

HIST	110	Early Western Civilization	3.0
HIST	111	Modern Western Civilization	3.0
PHIL	100	Introduction to Philosophy I	3.0
PHIL	102	Introduction to Philosophy II	3.0
RELS	100	Religions of the Modern World	3.0

##### E. Must select six (6.0) units from the following:

AMSL	100	American Sign Language 1	4.0
AMSL	102	American Sign Language 2	4.0
COMM	100	Oral Communication	3.0
COMM	110	Intermediate Public Speaking	3.0
COMM	180	Argumentation and Debate	3.0
ENGL	102	Introduction to Literature	3.0
ENGL	222	Survey of World Literature	3.0
ENGL	223	Survey of World Literature	3.0
ENGL/HUM	226	Introduction to Mythology	3.0
FILM	230	Introduction to Film History and Criticism	3.0
ENGL	250	Creative Writing	3.0
FREN	100	Elementary French I	5.0
FREN	110	Elementary French II	5.0
FREN	201	Intermediate French I	5.0
FREN	211	Intermediate French II	5.0
HUM/SPAN	262	Introduction to Chicano/a Studies	3.0
SPAN	100	Elementary Spanish I	5.0
SPAN	110	Elementary Spanish II	5.0
SPAN	200	Intermediate Spanish I	5.0
SPAN	210	Intermediate Spanish II	5.0
SPAN	220	Bilingual Spanish I	5.0
SPAN	221	Bilingual Spanish II	5.0
THEA	120	Fundamentals of Acting	3.0

\* Courses designated with an asterisk may be counted in one area only.

**Total Major Units**

**24.0**

# INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

Completion of ALL of the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University (CSU) or University of California (UC) system without the need, after transfer, to take additional lower-division general education courses to satisfy campus general education requirements.

IGETC is separated into six separate academic areas. Each area requires a specific unit/course requirement(s). A grade of "C" or higher is required for each course used to satisfy IGETC requirements. It is recommended IGETC be completed in its entirety prior to transfer. Students who do not complete the entire program before transfer could be subject to the general education requirements of the campus or college to which they transfer.

### PROGRAM LEARNING OUTCOMES

1. See GE Program Outcomes/Course Alignment Grid at [www.imperial.edu/faculty-and-staff/campus-committees/student-learning-outcomes/](http://www.imperial.edu/faculty-and-staff/campus-committees/student-learning-outcomes/)

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

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# INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)

## CERTIFICATE PROGRAM

### INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) CERTIFICATE

Students must complete a minimum of 37 units used to satisfy the IGETC requirements.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

<b>INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)</b> For specific course identifications that clear the IGETC requirements for each section, please see a Counselor for assistance.	
<b>AREA 1. ENGLISH COMMUNICATION</b> <b>CSU – Three Courses Required: One course each from Categories 1A, 1B and 1C.</b> <b>UC – Two Courses Required: One course each from Categories 1A and 1B.</b> <b>NAU – Three Courses Required: One course each from Categories 1A, 1B and 1C.</b>	<b>Minimum Units Required Per Area</b>
1A: English Composition (3 semester/4.5 Quarter Units Minimum)	3
1B: Critical Thinking–English Composition (3 semester/4.5 Quarter Units Minimum)	3
1C: Oral Communication (3 semester/4.5 Quarter Units Minimum)	3
<b>AREA 2. MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING</b> <b>One Course: 3 Semester/4.5 Quarter Units Minimum</b>	
2A: Mathematical Concepts and Quantitative Reasoning	3
<b>AREA 3. ARTS AND HUMANITIES – Nine (9) semester or 12/15 quarter units</b> <b>Three (3) courses, with at least one course from the Arts and one Course from the Humanities.</b> <b>The third course from either area.</b>	
3A: Arts; 3B: Humanities+; and, 3A: Arts <u>or</u> 3B: Humanities+	9
<b>AREA 4. SOCIAL AND BEHAVIORAL SCIENCES – Nine (9) semester or 12/15 quarter units</b> <b>Three (3) courses from at least two (2) academic areas.</b>	9
<b>AREA 5. PHYSICAL AND BIOLOGICAL SCIENCES – Minimum – 7/9 semester or 9/12 quarter units</b> <b>One Physical Science course and One Biological Science course with at least one lab course from either area to be included.</b>	
5A Physical Science; 5B Biological Science (One course MUST have a laboratory component.)	7-9
<b>AREA 6A: Language Other Than English (LOTE)</b>	
Students transferring to UC are required to demonstrate competence (proficiency) in a language other than English equal to two years of high school study. Competence may be demonstrated through the following mechanism: 1) Satisfactory completion of two years of high school coursework (US high school or high school in country where the language of instruction is English) in a language other than English, with a grade of "C" or better in each course. The two years must be in the same language. 2) Satisfactory completion of a course (or courses) at a college or university with a grade of "C" or better in each course. IVC courses: American Sign Language 100 or French 100 or Spanish 100 will satisfy this requirement. 3) Satisfactory completion, with "C" grades or better, of two years of formal schooling at the sixth grade-level or higher in an institution where the language of instruction is not English. Appropriate documentation must be presented to substantiate that the required coursework was completed. 4) Satisfactory score on the SAT II: Subject Test in languages other than English. 5) Satisfactory score, 3 or higher, in the College Board Advanced Placement examination in languages other than English. NOTE: The student is advised to see a counselor for assistance determining the completion of the IGETC Language Other Than English AREA 6A requirement.	

Total Certificate Units	37.0
<b>Total Minimum Units:</b>	<b>37.0</b>

**NOTE – IGETC Certification:** Earning this Certificate of Achievement will not replace the IGETC Certification document. The "certification" of IGETC is a separate process. The student must request IGETC Certification at the time he/she requests a final IVC transcript to be sent to the UC/CSU or other school he/she plans on attending.

# KINESIOLOGY (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Kinesiology for Transfer (AA-T)

### DESCRIPTION

Kinesiology, also known as physical education, is both an activity curriculum and an academic area of study concerned with the physical and psychological aspects of human movement. Exercise, activity and sports are an important component in the development of well-rounded individuals interested in physical well-being and the productive use of leisure time.

The Associate in Arts in Kinesiology for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Identify common injuries in the field of athletics and physical education, and then discuss short-term and long-term treatment plans.
2. List various occupations in the field of physical education and exercise science, and then summarize the educational requirements for employment in each field.
3. Demonstrate skills needed to meet the minimal certification standards when performing first aid and CPR as required by either the American Red Cross (ARC) or American Heart Association (AHA).
4. Demonstrate safe and effective exercise techniques, as well as improved fitness in the four areas of exercise principles (Cardio-respiratory Endurance, Muscular Strength and Endurance, Flexibility, and Body Composition).

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Virtually all two-year career programs in business or technology fields also require a solid foundation in mathematics. Many BA/BS level careers require extensive background in Mathematics.

- Certified Athletic Trainer
- Referee
- Competitor
- Correctional Officer
- Teacher
- Exercise Test Technologist
- Coach
- Recreation and Fitness Worker
- Playground Director
- Amusement and Recreation Attendant
- Strength Conditioning Specialist
- Camp Counselor
- Racquet Club Manager
- YMCA/YWCA Instructor
- Sportscaster
- Corrective Therapist
- League Manager
- Physical Therapist
- Choreographer
- Resort Sports Coordinator
- Recruiter
- Health and Safety Director
- Sports Editor
- Dance Therapist
- Recreation Specialist
- Community Center Leader
- Recreation Leader
- Scouts
- Industrial Recreation Leader
- Sports Information Director
- Physical Therapy Assistant

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# KINESIOLOGY (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### KINESIOLOGY

Associate in Arts Degree in Kinesiology for Transfer (AA-T) - 21.0-23.0

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### REQUIREMENTS FOR THE DEGREE

I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*

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

A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum

B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. **Associate Degree Major Core - 21.0-23.0 units**

**A. Required for the Major (11.0) units**

PE	209	Introduction to Physical Education	3.0
BIOL	204	Human Anatomy	4.0
BIOL	206	Human Physiology	4.0

**B. Select a maximum of one (1) course from any three (3) of the following areas for a minimum of three units:** 3.0

**Aquatics:**

PE	121	Beginning to Intermediate Swimming (1.0)
PE	142	Advanced Swimming (1.0)

**Fitness:**

PE	104	Weight Training (1.0)
PE	106	Walking/Jogging Fitness (1.0)
PE	111	Aerobics - Step (1.0)

**Individual Sports:**

PE	126 *	Tennis (1.0)
PE	127 *	Tennis - Advanced (1.0)
PE	170 *	Beginning Bowling (1.0)
PE	171 *	Intermediate Bowling (1.0)
PE	172 *	Advanced Bowling (1.0)

**Team Sports:**

PE	112	Basketball - Men (1.0)
PE	113	Basketball - Women (1.0)
PE	120	Softball (1.0)
PE	126 *	Tennis (1.0)
PE	127 *	Tennis - Advanced (1.0)
PE	128	Volleyball (1.0)
PE	129	Volleyball - Advanced (1.0)
PE	143	Advanced Basketball - Men (1.0)
PE	144	Advanced Basketball - Women (1.0)
PE	170 *	Beginning Bowling (1.0)
PE	171 *	Intermediate Bowling (1.0)
PE	172 *	Advanced Bowling (1.0)

**C. Select two courses (7.0-9.0) units from** 7.0-9.0

BIOL	100	Principles Of Biological Science (4.0)
CHEM	100	Introduction To Chemistry (4.0)
CHEM	200	General Inorganic Chemistry I (5.0)
HE	104	First Aid and CPR (3.0)
MATH	119	Elementary Statistics (4.0)
PHYS	200	General Physics I (4.0)

*\*Courses designated with an asterisk may be counted in one area only.*

Total Major Units	21.0-23.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>



# LIFE SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

Life Science is defined as any one of the branches of science concerned with the structure and behavior of living organisms, such as biology, botany, zoology, physiology, or biochemistry. This curriculum is designed to provide the beginning basics of a two-year transfer program with emphasis on the uniformity and diversity of life. The course requirements fulfill the lower division requirements for such majors as biology, dentistry, liberal studies, medicine, nursing, pharmacy, environmental health, and microbiology. Please consult with a counselor for assistance on identifying the correct course sequencing for your field of study.

### PROGRAM LEARNING OUTCOMES

1. Students will demonstrate an understanding of fundamental biological concepts and knowledge of the structure and function of living organisms.
2. Students will display competency with respect to the use of standard laboratory equipment and techniques commonly used in life science labs.
3. Students will understand the process of scientific research and display critical thinking skills related to hypothesis development, experimentation and data interpretation.
4. Students will develop a foundation in biology strong enough to allow the successful completion of any attempted 200-level biology course(s).

### ASSOCIATE DEGREE PROGRAM

The Associate in Arts (AA) or the Associate in Science (AS) Degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Agronomist
- Anatomist
- Animal Scientist
- Biochemist
- Biomedical Engineer
- Biophysicist
- Botanist
- Developmental Biologist
- Ecologist
- Medical Laboratory Technician
- Epidemiologist
- Food Scientist
- Forester
- Geneticist
- Horticulturist
- Immunologist
- Marine Biologist
- Medical Illustrator
- Microbiologist
- Mycologist
- Nutritionist
- Paleontologist
- Pathologist
- Pharmacologist
- Physiologist
- Science Teacher
- Science Writer
- Zoologist

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) – UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# LIFE SCIENCE

## ASSOCIATE DEGREE PROGRAM

### LIFE SCIENCE MAJOR – A.S. DEGREE

Twenty-four (24.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

**I. Select a minimum of 18.0 units from the following:**

ANTH	100	Physical Anthropology	3.0
BIOL	120	General Zoology I	4.0
BIOL	122	General Zoology II	4.0
BIOL	140	General Botany	3.0
BIOL	150	Human Genetics	3.0
BIOL	180	General Biology: Molecules, Cells and Genetics	4.0
BIOL	182	General Biology: Principles of Organismal Biology	4.0
BIOL	200	Human Anatomy & Physiology I	4.0
BIOL	202	Human Anatomy & Physiology II	4.0
BIOL	204	Human Anatomy	4.0
BIOL	206	Human Physiology	4.0
BIOL	220	General Microbiology	5.0

**II. Select a minimum of 6.0 units from the following:**

AG/ENVS	110	Environmental Science (3.0)	
CHEM	200	General Inorganic Chemistry I (5.0)	
CHEM	202	General Inorganic Chemistry II (5.0)	
CHEM	204	Organic Chemistry I (5.0)	
CHEM	206	Organic Chemistry II (5.0)	
GEOG	100	General Geology (4.0)	
GEOG	110	Earth and Space Science (3.0)	
GEOG	130	Climate and Weather (3.0)	
MATH	119	Elementary Statistics (4.0)	

**Total Major Units**

**24.0**

# MATHEMATICS (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree in Mathematics for Transfer (AS-T)

### DESCRIPTION

Mathematics, one of the oldest disciplines, is the study of order, structure, and form for the sciences and technology. Areas of mathematics include arithmetic, algebra, geometry, calculus, and various other theoretical and applied subjects. Mathematics is the foundation for many fields of study, including biological, physical, computer, behavioral, and social sciences, as well as engineering. Students may take mathematics courses to prepare for a mathematics major, to meet prerequisites in related disciplines, or to fulfill general education requirements.

**The Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.**

### PROGRAM LEARNING OUTCOMES

1. Students will use mathematical reasoning to solve problems and a generalized problem solving process to work word problems.
2. Students will learn mathematics through modeling real-world situations.
3. Students will use appropriate technology to enhance their mathematical thinking and understanding, solve mathematical problems, and judge the reasonableness of their results.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

**The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree** is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Virtually all two-year career programs in business or technology fields also require a solid foundation in mathematics. Many BA/BS level careers require extensive background in Mathematics.

- |                       |                         |                      |
|-----------------------|-------------------------|----------------------|
| • Auditor             | • Engineer              | • Operations Analyst |
| • Actuary             | • Engineering Analyst   | • Opinion Polling    |
| • Appraiser           | • Finance Director      | • Physical Science   |
| • Assessor            | • Financial Analyst     | • Public Health      |
| • Biology/Agriculture | • Industry              | • Sociology          |
| • Budget Analyst      | • Investment Analyst    | • Statistician       |
| • Business/Economics  | • Loan Officer          | • Systems Analyst    |
| • Casualty Rater      | • Marketing/Advertising | • Tax Collector      |
| • Chemistry           | • Mathematician         | • Teacher            |
| • Controller          | • Mathematics           | • Technical Writer   |
| • Education           | • Numerical Analyst     |                      |

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# MATHEMATICS (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### MATHEMATICS

Associate in Science Degree in Mathematics for Transfer (AS-T) – 18.0-19.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Eighteen to Nineteen (18-19) units required for the major.**

#### A. Required for the Major

MATH	192	Analytic Geometry and Calculus I	4.0
MATH	194	Analytic Geometry and Calculus II	4.0
MATH	210	Multivariable Calculus	4.0

#### B. Select one course from:

MATH	220	Elementary Differential Equations (3.0)	3.0
MATH	230	Introduction to Linear Algebra with Applications (3.0)	

#### C. Select one course from:

CIS	210	Programming in C++ (3.0)	3.0-4.0
CS	221	Introduction to Object-Oriented Programming in Java (3.0)	
CS	231	Introduction to Data Structures (3.0)	
MATH	119	Elementary Statistics (4.0)	
MATH	220 *	Elementary Differential Equations (3.0)	
MATH	230 *	Introduction to Linear Algebra with Applications (3.0)	
MATH	240	Discrete Mathematics (3.0)	
PHYS	200	General Physics I (4.0)	

\*If not used for required courses under section B above.

Total Major Units	18.0-19.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# MEDICAL ASSISTANT

## DEGREES, CERTIFICATES AND AWARDS

### Certificate of Achievement

#### DESCRIPTION

The Medical Assistant program prepares people to work under the direction of physicians and registered nurses in medical offices and clinics. Students who complete the certificate in medical assistant will have the knowledge which will allow them to comprehend and communicate with medical professionals effectively and may provide enhanced employment opportunities in the field once they gain relevant job experience.

#### PROGRAM LEARNING OUTCOMES

1. Successfully complete front office/administrative externship with an employer assessment of student.
2. Successfully complete back office/clinical externship with an employer assessment of the student.
3. Successfully identify correct medical terminology used in patient care and procedures.

#### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

#### FINANCIAL AID

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#### CAREER OPPORTUNITIES

- Medical Assistant

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# MEDICAL ASSISTANT

## CERTIFICATE OF ACHIEVEMENT

### MEDICAL ASSISTANT

Twenty-six and one-half (26.5) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (26.5 units)

AHP	100	Medical Terminology	3.0
MA	070	Administrative Medical Assistant I	4.5
MA	072	Administrative Medical Assistant II	4.5
MA	074	Clinical Externship I	2.0
MA	080	Specimen Collection & Lab Procedures	3.5
MA	082	Exam Room Procedures	3.5
MA	084	Pharmacology & Administration	3.5
MA	086	Clinical Externship II	2.0

**Total Certificate Units**

**26.5**

# MUSIC (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Music for Transfer (AA-T)

### DESCRIPTION

The associate's degree in music is for those students who have professional ambitions in music performance, public school teaching, composition, jazz studies, a music generalist, and/or for seeking foundation for graduate school for university teaching or research. This program emphasized the professional aspects of music and encourages students to continue on for a bachelor's degree.

All students are encouraged to consult with the music department to determine their placement level for starting this associate's degree and/or advisement to enroll in Music 100, Introduction to Music Foundations.

**The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.**

### PROGRAM LEARNING OUTCOMES

1. History: The student will know the stylistic and historic periods of music, and the music terminology needed to identify and understand all the elements of music.
2. Music Theory: The student will have knowledge of key signatures, evolution of harmonic development and fundamental keyboard understanding and skills.
3. Performing Skills: The student will gain performing skills in different types of repertoire from a variety of musical periods.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

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### CAREER OPPORTUNITIES

The music program is designed to promote interest and excellence in general musical knowledge and performance. The program also serves students interested in transferring to four year schools as well as offering preparation for careers in music. Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Conductor
- Soloist
- Composer
- Private Teaching
- Music Librarian
- Music Therapy
- Music Criticism
- Music Publishing
- Opera
- Accompanist
- Recreation Specialist
- Recording Industry
- Producer
- Arranger
- Copyist
- Studio Performer
- Music Education
- General Music
- Vocal Instruction
- Instrumental Instruction
- Administration
- College Teaching
- Church Music Director
- Choir Director
- Church Organist

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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# MUSIC (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### MUSIC

Associate in Arts Degree in Music for Transfer (AA-T) – 24.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Twenty-Four (24) units required for the major.**

#### Required for the Major

MUS	110	Beginning Musicianship I	1.0
MUS	112	Beginning Musicianship II	1.0
MUS	120	Beginning Harmony I	3.0
MUS	122	Beginning Harmony II	3.0
MUS	210	Intermediate Musicianship I	1.0
MUS	212	Intermediate Musicianship II	1.0
MUS	220	Intermediate Harmony I	3.0
MUS	222	Intermediate Harmony II	3.0
MUS	163	Applied Music I	1.0
MUS	164	Applied Music II	1.0
MUS	165	Applied Music III	1.0
MUS	166	Applied Music IV	1.0

*NOTE(S): MUS 110 and 120 must be taken concurrently and the sequence followed through MUS 212 and 222*

**Ensemble (4.0 units) 4.0**

*Students must sign up for one performance ensemble from the following list for each semester enrolled.*

MUS	156	Beginning College Chorus (1.0)
MUS	157	Intermediate College Chorus (1.0)
MUS	171	Chamber Orchestra (1.0)
MUS	172	College-Community Band (1.0)
MUS	175	Instrumental Ensemble (1.0)
MUS	177	Stage Band (1.0)
MUS	178	Symphony Orchestra (1.0)

*\*Credit for MUS 163-166 is obtained through "credit-by-exam." After certifying 15 hours of private studio instruction with an approved instructor, the student will perform live before a jury consisting of the studio instructor and at least one member of the IVC music department faculty (See Note 2). The literature performed must be from the department approved sequence of literature of equivalent difficulty. This exam will be taped. The grade will be recommended by the private instructor in concurrence with the IVC faculty member(s) serving on the jury, with the department head having the final determination in case of a dispute.*

*\*If the studio instructor is also an IVC music faculty member, no other is needed.*

Total Major Units	24.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	—
<b>Total Maximum Units:</b>	<b>60.0</b>



# NURSING

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.) – Registered Nursing (R.N.)

Associate in Science Degree (A.S.) – Licensed Vocational Nurse (L.V.N.)

Certificate of Achievement - Licensed Vocational Nurse

## DESCRIPTION

The Division of Health and Public Safety offers programs leading to the associate degree in Registered Nursing (R.N.) and associate degree in Licensed Vocational Nursing (L.V.N.) along with an Licensed Vocational Nursing (L.V.N.) certificate.

The **Registered Nursing** program is designed to provide the education necessary for licensure eligibility and practice as a Registered Nurse (R.N.). Acceptance into the program requires successful completion of all prerequisites and successful completion of the application and selection processes.

The **Vocational Nursing Program** is designed to provide the education necessary for licensure eligibility and practice as a Licensed Vocational Nurse (L.V.N.). Acceptance into the program required successful completion of all prerequisites and successful completion of the application and selection processes.

**All required prerequisites and nursing courses must be completed with a grade of "C" or better.** Contact the Nursing and Allied Health Department for more specifics.

**LVN to RN Student** - Advanced placement options are found in the Nursing Appendix at the end of the Imperial Valley College general catalog.

## PROGRAM LEARNING OUTCOMES

### Nursing - R.N. (Associate Degree)

1. Students meet or exceed pass rates set for national licensing exam (NCLEX-RN).
2. Student cohort "complete on-time" rate.
3. Students demonstrate comprehensive knowledge of registered nursing prior to exiting NURS 227.

### Nursing - V.N. (Vocational)

1. Students meet or exceed pass rates set for national licensing exam (NCLEX-VN).
2. Student cohort "complete on-time" rate.
3. Students demonstrate comprehensive knowledge of vocational nursing prior to exiting VN 132.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Of the career opportunities identified below many will usually require the completion of bachelor degree requirements at 4-year colleges and universities.

- Registered Nurse (B.S.N.)
- Hospital Nurse
- Medical Nurse
- Surgical Nurse
- Emergency Room Nurse
- Operating Room Nurse
- Pediatrics Nurse
- Obstetrics Nurse
- Mental Health Nurse
- Critical Care Nurse
- Oncology Nurse
- Rehabilitation Nurse
- Community Health Nurse
- Home Health Nurse
- Vocational Nurse
- Extended Care Nurse
- Physician's Office Nurse
- Clinics and Industry Nurse
- Traveling Nurse

Advanced Practice (M.S.) roles: Clinical Nurse Specialist, Educator, Nurse Practitioner, Case Manager, and School Nurse

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# NURSING

## ASSOCIATE DEGREE PROGRAM

### NURSING – ASSOCIATE DEGREE (R.N) MAJOR – A.S. DEGREE

#### Admission Requirements

##### 1. Prerequisites for the major

• ENGL	110	Composition and Reading	4.0
• BIOL	220	General Microbiology	5.0
• BIOL	200	Human Anatomy & Physiology I	4.0
AND			
BIOL	202	Human Anatomy & Physiology II	4.0
OR			
BIOL	204	Human Anatomy (4.0)	
AND			
BIOL	206	Human Physiology (4.0)	
• SOC	101	Introduction to Sociology	3.0
OR			
ANTH	102	Cultural Anthropology (3.0)	
• PSY	204	Developmental Psychology: Conception to Death	3.0
• <b>Math Competency:</b> A score of 7006 or 2006 or higher on the ACCUPLACER™ College Level Mathematics test OR MATH 091 OR MATH 090 (Intermediate Algebra) OR an advanced level mathematics course with a grade of “C” or higher.			
• <b>Reading Competency:</b> A placement score of 5010 or 3006 on the ACCUPLACER™ Reading Test OR ENGL 110 (Composition and Reading) OR ENGL 101 (Composition and Rhetoric) with a grade of “C” or higher.			

2. **TEAS Exam:** Must pass exam at the predetermined minimum cut score (or higher) as set by the college and the State of California.

3. **Background:** Must pass a criminal background check as a requirement of the clinical agencies.

4. **Drug Screen:** Must pass a drug screen as defined by the Nursing Program as a requirement of the clinical agencies.

5. **American Heart BLSL/CPR Certification:** Must be current.

#### Additional Program Requirements

##### 1. Degree Requirements

• COMM	100	Oral Communication	3.0
• PE	100	Lifetime Exercise Science	2.0
• PE		Activity Course	1.0
• Humanities Elective			3.0
• American Institution Requirement			6.0

##### 2. Progression Policy

All nursing courses must be taken in sequence and must be completed with a “C” or better with skills and clinical experience courses receiving the equivalent of “C” or “Satisfactory” or higher to progress to the next level. Nursing Program graduates must submit a transcript demonstrating successful completion of all course work and graduation prior to sitting for the National Council Licensure Examination for Registered Nurses.

##### 3. Registered Nursing Program Specific Courses:

###### Semester 1:

NURS	107	Nursing Fundamentals	6.0
NURS	108	Gerontology Nursing	2.0
NURS	109	Pharmacology	1.5

###### Semester 2:

NURS	127	Medical Surgical Nursing I	4.0
NURS	128	Nursing Care of the Childbearing Family	4.5

###### Semester 3:

NURS	217	Medical Surgical Nursing II	4.0
NURS	218	Nursing Care of the Childrearing Family	4.5
NURS	219	Psychiatric and Mental Health Nursing *	3.0

*NURS 219 may be taken summer before or after 3rd semester*

###### Semester 4:

NURS	227	Medical-Surgical Nursing III/Preceptorship	8.0
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*\*\* Clinical experience may include a rotation outside of county.*

**Total Nursing Units**

**37.5**

# NURSING

## ASSOCIATE DEGREE PROGRAM

### NURSING – VOCATIONAL NURSING (V.N.) MAJOR – A.S. DEGREE

#### Admission Requirements

##### 1. Prerequisites for the major

• AHP	100	Medical Terminology	3.0
• BIOL	090	Anatomy & Physiology for Health Occupations	3.0
• ENGL	110	Composition and Reading	4.0
• PSY	101	Introduction to Psychology	3.0

2. **Background:** Must pass a criminal background check as a requirement of the clinical agencies.

3. **Drug Screen:** Must pass a drug screen as defined by the Nursing Program as a requirement of the clinical agencies.

4. **American Heart BLSL/CPR Certification:** Must be current.

#### Additional Program Requirements

##### 1. Additional Degree Requirements

• COMM	100	Oral Communication	3.0
• PE	100	Lifetime Exercise Science	2.0
• PE		Activity Course	1.0
• Humanities Elective			3.0
• American Institution Requirement			6.0

##### 2. Progression Policy

All nursing courses must be taken in sequence and must be completed with a "C" or better with skills and clinical experience courses receiving the equivalent of "C" or "Satisfactory" or higher to progress to the next level.

##### 3. Vocational Nursing Program Specific Courses:

###### Semester 1:

VN	110	Introduction to Client Care I	5.0
VN	112	Introduction to Client Care II	5.0
VN	114	Pharmacology I	1.5
VN	116	Patient Care Management & Critical Thinking	2.5
PSY	204	Developmental Psychology: Conception to Death	3.0

###### Semester 2:

VN	120	Maternity Cycle	5.5
VN	122	Common Health Problems I	5.5
VN	124	Pharmacology II	2.0

###### Semester 3:

VN	130	Common Health Problems II	5.5
VN	132	Common Health Problems III	5.5

**Total Nursing Units**

**41.0**

# NURSING

## CERTIFICATE OF ACHIEVEMENT PROGRAM

### NURSING – VOCATIONAL NURSING (V.N.) CERTIFICATE

#### Admission Requirements

##### 1. Prerequisites for the major

• AHP	100	Medical Terminology	3.0
• BIOL	090	Anatomy & Physiology for Health Occupations	3.0
• ENGL	110	Composition and Reading	4.0
• PSY	101	Introduction to Psychology	3.0

2. **Background:** Must pass a criminal background check as a requirement of the clinical agencies.

3. **Drug Screen:** Must pass a drug screen as defined by the Nursing Program as a requirement of the clinical agencies.

4. **American Heart BLSL/CPR Certification:** Must be current.

#### Additional Program Requirements

##### 1. Progression Policy

All nursing courses must be taken in sequence and must be completed with a "C" or better with skills and clinical experience courses receiving the equivalent of "C" or "Satisfactory" or higher to progress to the next level.

##### 3. Vocational Nursing Program Specific Courses:

###### Semester 1:

VN	110	Introduction to Client Care I	5.0
VN	112	Introduction to Client Care II	5.0
VN	114	Pharmacology I	1.5
VN	116	Patient Care Management & Critical Thinking	2.5
PSY	204	Developmental Psychology: Conception to Death	3.0

###### Semester 2:

VN	120	Maternity Cycle	5.5
VN	122	Common Health Problems I	5.5
VN	124	Pharmacology II	2.0

###### Semester 3:

VN	130	Common Health Problems II	5.5
VN	132	Common Health Problems III	5.5

**Total Nursing Units** **41.0**

# PHARMACY TECHNICIAN

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

## DESCRIPTION

The Pharmacy Technician program offers an Associate of Science Degree and the Certificate of Achievement which will prepare the student for the national certification exam for entry level work as a pharmacy technician. A pharmacy technician helps the licensed pharmacist prepare prescriptions, medications, provides customer services, and performs administrative duties. Pharmacy technicians generally are responsible for receiving prescription requests, preparing the prescription, preparing sterile solutions, counting medications, and administrative duties such as answering the phone, stocking shelves, or operating a cash register. Career roles may be in a retail or mail-order pharmacy; a hospital or nursing home; and an assisted living facility or penal system.

## PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of accurate calculations for oral and parenteral dosages.
2. Demonstrate knowledge of accurate medication compounding and identification of patients that need to be counseled by a licensed pharmacist.
3. Demonstrate knowledge of legal requirements related to the pharmacy technician role.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

Completing students will be able to work within a long-term care facility, hospital, retail, or other pharmacy under the direction of a licensed pharmacist.

- Pharmacy Technician
- Pharmacy Aide

Other workers who are employed in pharmacies, work with pharmaceutical compounds, or are involved in patient care include: Biological Scientists, Medical Scientists, Physicians and Surgeons, and Registered Nurses.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

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## FINANCIAL AID

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# PHARMACY TECHNICIAN

## ASSOCIATE DEGREE PROGRAM

### PHARMACY TECHNICIAN MAJOR – A.S. DEGREE

Eighteen and one half (18.5) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.5 units)

AHP	100	Medical Terminology	3.0
PHT	108	Introduction to Pharmacy Technology	2.0
PHT	120	Pharmacy Technician Body Systems I	3.0
PHT	125	Pharmacy Technician Body Systems II	3.0
PHT	130	Calculation and Pharmacology for Pharmacy Technician	3.0
PHT	140	Pharmacy Technician Operations	4.5

**Total Major Units**

**18.5**

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## CERTIFICATE PROGRAM

### PHARMACY TECHNICIAN CERTIFICATE

Eighteen and one half (18.5) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (18.5 units)

AHP	100	Medical Terminology	3.0
PHT	108	Introduction to Pharmacy Technology	2.0
PHT	120	Pharmacy Technician Body Systems I	3.0
PHT	125	Pharmacy Technician Body Systems II	3.0
PHT	130	Calculation & Pharmacology for Pharmacy Technician	3.0
PHT	140	Pharmacy Technician Operations	4.5

**Total Certificate Units**

**18.5**

# PHYSICAL EDUCATION

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

The Physical Education Associate of Science degree provides an educational and practical foundation for students interested in multiple professions within the area of physical education/kinesiology. Topics include introduction to physical education, care and prevention of athletic injuries, exercise leadership, first aid and CPR, psychology of coaching, nutrition, dance, fitness, and sport. Students who work closely with their counselor can use this degree to prepare for majoring in kinesiology at a four-year institution.

### PROGRAM LEARNING OUTCOMES

1. List various occupations in the field of physical education and exercise science, and then summarize the educational requirements for employment in each field.
2. Identify common injuries in the field of athletics and physical education, and then discuss short-term and long-term treatment plans.
3. Demonstrate skills needed to meet the minimal certification standards when performing first aid and CPR as required by either the American Red Cross (ARC) or American Heart Association (AHA).
4. Demonstrate safe and effective exercise techniques, as well as improved fitness in the four areas of exercise principles (Cardio-respiratory Endurance, Muscular Strength and Endurance, Flexibility, and Body Composition).

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

The **Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

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### CAREER OPPORTUNITIES

Of the career opportunities identified some will usually require the completion of degree requirements at 4-year colleges and universities.

- Athletic Administrator
- Athletic Trainer
- Coach
- Public/Private/Non-Profit Organization Recreation Director
- Resort Activities Director/Coordinator
- Health and Safety Director
- Health/Sport Club Manager
- Personal Trainer
- Sports Journalist
- Teacher

Students earning the Associate in Science degree in Physical Education may find employment as assist level positions in the K-12 school system, the fitness industry or recreational settings.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### TRANSFER PREPARATION

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# PHYSICAL EDUCATION

## ASSOCIATE DEGREE PROGRAM

### PHYSICAL EDUCATION MAJOR – A.S. DEGREE

Nineteen to twenty (19.0-20.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (13.0 units)

BIOL	100	Principles of Biological Science	4.0
HE	104	First Aid and CPR	3.0
PE	209	Introduction to Physical Education	3.0
PE	219	Introduction to Athletic Training	3.0

#### II. Activity Requirement

Select a minimum of one course from three (3) areas for a total of four (4.0) units:

##### Adaptive

PE	130	Adapted Physical Exercises	1.0
PE	131	Adapted Sports	1.0

##### Aquatics

PE	107	Aquatic Exercise	1.0
PE	121	Beginning to Intermediate Swimming	1.0
PE	122	Lifeguard Training	2.0
PE	123	Water Safety Instructor Training	2.0
PE	142	Advanced Swimming	1.0

##### Fitness

PE	102	Physical Fitness	1.0
PE	103	Physical Fitness – Women	1.0
PE	104	Weight Training	1.0
PE	106	Walking/Jogging Fitness	1.0
PE	111	Aerobics – Step	1.0

##### Individual/Team Sports

PE	112	Basketball – Men	1.0
PE	113	Basketball – Women	1.0
PE	120	Softball	1.0
PE	126	Tennis	1.0
PE	127	Tennis – Advanced	1.0
PE	128	Volleyball	1.0
PE	129	Volleyball – Advanced	1.0
PE	143	Advanced Basketball – Men	1.0
PE	144	Advanced Basketball – Women	1.0
PE	170	Bowling – Beginning	1.0
PE	171	Bowling – Intermediate	1.0
PE	172	Bowling – Advanced	1.0

##### Intercollegiate Athletics

ATHL	120	Intercollegiate Cross Country and PE	3.0
ATHL	121	Out-of-Season Intercollegiate Cross Country and PE	3.0
ATHL	122	Intercollegiate Volleyball and PE	3.0
ATHL	123	Out-of-Season Intercollegiate Volleyball and PE	3.0
ATHL	124	Intercollegiate Men's Soccer and PE	3.0
ATHL	125	Out-of-Season Intercollegiate Men's Soccer and PE	3.0
ATHL	126	Intercollegiate Women's Soccer and PE	3.0
ATHL	127	Out-of-Season Intercollegiate Women's Soccer and PE	3.0
ATHL	128	Intercollegiate Men's Basketball and PE 1	3.0
ATHL	129	Intercollegiate Men's Basketball and PE 2	3.0
ATHL	130	Intercollegiate Women's Basketball and PE 1	3.0
ATHL	131	Intercollegiate Women's Basketball and PE 2	3.0
ATHL	132	Out-of-Season Intercollegiate Baseball and PE	3.0
ATHL	133	Intercollegiate Baseball and PE	3.0
ATHL	134	Out-of-Season Intercollegiate Softball and PE	3.0
ATHL	135	Intercollegiate Softball and PE	3.0
ATHL	136	Out-of-Season Intercollegiate Men's Tennis and PE	3.0
ATHL	137	Intercollegiate Men's Tennis and PE	3.0
ATHL	138	Out-of-Season Intercollegiate Women's Tennis and PE	3.0
ATHL	139	Intercollegiate Women's Tennis and PE	3.0

#### III. Theory/Practicum Requirement – Select one course (2.0-3.0 units):

PE	200	Theory of Baseball	2.0
PE	201	Theory of Basketball	2.0
PE	202	Theory of Softball	2.0
PE	203	Theory of Volleyball	2.0
PE	211	PE in the Elementary School	3.0
PE	221	Psychology of Coaching	2.0
PE	222	Sports Officiating	3.0

**Total Major Units**

**19.0-20.0**



# PHYSICAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

**Physical Science** is a branch of science, identified as a natural science, which encompasses the study non-living systems, in contrast to the life sciences. Physical sciences are those fields of study that analyze the natural state and properties of energy paired with any non-living matter. Physics, chemistry, geology (earth science), and astronomy are physical sciences.

**Physics** is the "fundamental science" because the other natural sciences (biology, chemistry, geology, etc.) deal with systems that obey the laws of physics. The physical laws of matter, energy, and the forces of nature govern the interactions between particles (such as molecules, atoms, or subatomic particles).

**Astronomy** is a natural science that deals with the study of celestial objects (such as stars, planets, comets, nebulae, star clusters, and galaxies) and phenomena that originate outside the atmosphere of Earth. It is concerned with the evolution, physics, chemistry, meteorology, and motion of celestial objects, as well as the formation and development of the universe. Astronomy is one of the oldest sciences.

**Chemistry**, built upon physical concepts, addresses phenomena associated with the structure, and composition of matter and the changes it undergoes. Often known as the central science, chemistry connects the fundamental laws of physics to engineering and other natural sciences such as biology, earth science, astronomy and material science.

**Earth Science** is the science of the planet Earth, the only known life-bearing planet. Its studies include some of the following: Oceanography, Geology, Weather, Soil Science, Physical Geography, etc.

### PROGRAM LEARNING OUTCOMES

1. Be able to observe repeatable physical interactions, collect data and apply the scientific method to identify their physical origins.
2. Demonstrate, in a clear and concise manner, how to analyze and solve problems and to evaluate and test the correctness of the proposed solution.
3. Demonstrate a proficiency in their oral and written communications of their scientific work and ideas in group and/or laboratory exercises.

### ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities. A strong mathematical background is required.

- Engineer
- Science Educator
- Chemist
- Geologist
- Agriculturist
- Scientific Computer Programmer
- Geographer
- Meteorologist
- Technical Writer
- Research Physicist
- Applied Physicist
- Telescope Operator
- Astronaut
- Space Engineer
- Space Scientist

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# PHYSICAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### PHYSICAL SCIENCE MAJOR – A.S. DEGREE

Thirty-Five (35.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Thirty (30.0) units required:

CHEM	200	General Inorganic Chemistry I	5.0
CHEM	202	General Inorganic Chemistry II	5.0
MATH	192	Analytic Geometry and Calculus I	4.0
MATH	194	Analytic Geometry and Calculus II	4.0
PHYS	200	Principles of Physics I	4.0
PHYS	202	Principles of Physics II	4.0
PHYS	204	Principles of Physics III	4.0

#### II. Five (5.0) units selected from:

AG/ENVS	110	Environmental Science (3.0)
ASTR	100	Principles of Astronomy (3.0)
CHEM	204	Organic Chemistry I (5.0)
CHEM	206	Organic Chemistry II (5.0)
GEOG	100	Physical Geography (3.0)
GEOL	100	General Geology (4.0)
GEOL	110	Earth and Space Science (3.0)
GEOL	130	Climate and Weather (3.0)
MATH	119	Elementary Statistics (4.0)
MATH	210	Multivariable Calculus (4.0)
MATH	220	Elem Differential Equations (3.0)
MATH	230	Intro to Linear Algebra w/Appl (3.0)
PHSC	110	Physical Science (3.0)

**Total Major Units**

**35.0**

# POLITICAL SCIENCE (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Political Science for Transfer (AA-T)

### DESCRIPTION

Political Science, or Government, is the study of the acquisition and use of public power and authority. Politics and government affect everyone's life and impinge on activities in many fields. The introductory courses are for the student interested in learning about American Government and different political cultures in the world. The political science major is especially desirable for students who might work for civil government at any level, be commissioned as military officers or who intend to become lawyers. A major and/or minor in political science at a four-year institution is useful in such fields as economics, history, journalism and language or for those who hope to become executives in law enforcement or in many types of businesses.

**The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.**

### PROGRAM LEARNING OUTCOMES

1. Use critical thinking skills to develop an understanding of the international community.
2. Develop an appreciation and understanding of the American political system from historical, political, economic, and social perspectives.
3. Develop an understanding of the world's major political ideologies to include liberalism, socialism, communism, and conservatism.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

**The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree** is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Administrative Analyst
- Budget Analyst
- Administrative Aide
- Administrator
- Administrative Assistant
- Lobbyist
- Personnel Manager
- Attorney
- Foreign Service Officer
- Campaign Aide
- Occupational Analyst
- Elected Official
- Government Worker
- Legislative Aide
- Political Economist
- Military Officer
- Public Information Officer
- Political Scientist
- Foreign Trade Specialist
- City Planner
- Public Relations Specialist
- Staff Member
- Public Opinion Surveyor

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### FINANCIAL AID

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# POLITICAL SCIENCE (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### POLITICAL SCIENCE

Associate in Arts Degree in Political Science for Transfer (AA-T) – 18.0-19.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Eighteen (18) units required for the major.**

#### A. Required for the Major

POLS	102	American Government & Politics	3.0
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<b>B. Select a minimum of nine to ten (9-10) units from:</b>			<b>9.0-10.0</b>
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POLS	100	Introduction to Political Science (3.0)
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POLS	104	Comparative Politics (3.0)
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POLS	106	Introduction to International Relations (3.0)
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MATH	119	Elementary Statistics (4.0)
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<b>C. Select six (6) units from:</b>			<b>6.0</b>
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Any courses not selected above, any CSU transferable political science courses, and/or other courses that are articulated as lower division preparation for the political science major at a CSU, or any CSU transferable introductory course in the social sciences (i.e., articulated as filling CSU GE Area D.)

ANTH	102	Cultural Anthropology (3.0)
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ECON	101	Introduction to Micro Economics (3.0)
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ECON	102	Intro to Macro Economics (3.0)
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GEOG	102	Cultural Geography (3.0)
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HIST	100	Early World History (3.0)
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or

HIST	101	Modern World History (3.0)
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HIST	110	Early Western Civilization (3.0)
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or

HIST	111	Modern Western Civilization (3.0)
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Total Major Units	18.0-19.0
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CSU-GE or IGETC Pattern	37.0-39.0
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Electives (as needed to reach 60 degree applicable units)	—
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<b>Total Maximum Units:</b>	<b>60.0</b>
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# PRE-ENGINEERING

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

The IVC Pre-Engineering program provides a foundation of mathematics, chemistry and physics courses necessary to transfer to a four-year institution and complete a bachelor's degree in engineering. Students should consult the institution to which they wish to transfer for specific lower division requirements.

People working in the field of engineering and related technical fields "bridge the gap" between scientific principles and the application of these principles to the needs of society. An engineer uses experience and judgment, as well as advanced training in engineering, science, and mathematics, to formulate ideas and designs, and to determine standards, specifications, work orders and schedules so that projects can be economically beneficial to mankind. Engineering offers diverse and exciting job opportunities for people with mathematical, scientific, and technical skills.

### PROGRAM LEARNING OUTCOMES

1. Have a working knowledge of the theories and principles of physics in the areas of Newtonian mechanics, gravitation, electricity and magnetism, wave motion and physical optics.
2. Be acquainted with standard methods of mathematical analysis including trigonometry and analytic geometry, differential and integral calculus, matrices and linear algebra, and the solutions to differential equations.
3. Can use the computer to store and process technical data, to access information remotely over the internet, and as a computational tool related to the engineering process.

### ASSOCIATE DEGREE PROGRAM

The **Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### CAREER OPPORTUNITIES

Of the career opportunities identified, many will require the completion of bachelor's degree requirements at 4-year colleges and universities. Career options include:

Aerospace Engineer	Civil Engineer	Structural Engineer
Electrical Engineer	Computer Engineer	
Environmental Engineer	Mechanical Engineer	

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

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# PRE-ENGINEERING

## ASSOCIATE DEGREE PROGRAM

### PRE-ENGINEERING – A.S. DEGREE

Twenty-seven (27.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

**I. Eighteen (18.0) units required:**

CHEM	200	General Inorganic Chemistry I	5.0
ENGR	210	Statics	3.0
MATH	210	Multivariable Calculus	4.0
PHYS	200	Principles of Physics I	4.0

**II. Three (3.0) units selected from:**

MATH	220*	Elementary Differential Equations (3.0)	3.0
MATH	230*	Introduction to Linear Algebra w/Applications (3.0)	3.0

**III. Three (3.0) units selected from:**

ENGR	212*	Dynamics (3.0)	3.0
ENGR	240*	Electronic Circuit Analysis (3.0)	3.0

**IV. Five (5.0) units selected from**

CHEM	202	General Inorganic Chemistry II (5.0)	5.0
CHEM	204	Organic Chemistry I (5.0)	5.0
CHEM	206	Organic Chemistry II (5.0)	5.0
CIS	210	Programming in C++ (3.0)	3.0
CS	221	Introduction to Object-Oriented Programming in Java (3.0)	3.0
ENGR	212*	Dynamics (3.0)	3.0
ENGR	240*	Electronic Circuit Analysis (3.0)	3.0
MATH	119	Elementary Statistics (4.0)	4.0
MATH	220*	Elementary Differential Equations (3.0)	3.0
MATH	230*	Introduction to Linear Algebra w/Applications (3.0)	3.0
PHYS	202	Principles of Physics II (4.0)	4.0
PHYS	204	Principles of Physics III (4.0)	4.0

*\* If not used for required courses under sections II. or III. above.*

**Total Major Units**

**27.0**

# PSYCHOLOGY (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Psychology for Transfer (AA-T)

### DESCRIPTION

The Psychology program at IVC is designed to benefit both the student pursuing a career in psychology or related disciplines as well as the student desiring to acquire a personal understanding of psychology as it applies to everyday living. Psychology is the scientific study of human behavior and mental processes. It is a broad discipline which involves both pure and practical application of scientific principles as they apply to human development and adjustment. Although professional level positions require a graduate degree, BA holders find satisfying careers in a growing number of fields.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate understanding and analyze the major theoretical perspectives, historical trends, and current research in psychology.
2. Demonstrate and understanding of the interaction of the biological basis of behavior, cognition and emotion with the environmental basis for behavior, cognition and emotion.
3. Demonstrate critical thinking by applying psychological theory and the scientific approach, to understanding and solving diverse personal and social issues related to behavior and/or cognition.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Psychiatric Aide
- Social Services Director
- Survey Designer
- Mental Health Worker
- Sports Psychologist
- Space Psychologist
- Forensic Psychologist
- Employment Counselor
- Outreach Worker
- Human Factors Specialist
- Personnel Management Specialist
- Community College Instructor
- Marriage, Family, Child Counselor
- Test Validation and Development Specialist
- Student Affairs Officer
- Probation Officer
- Research Director
- Social Research Trainee
- Drug Abuse Counselor
- Training Officer
- Personnel Analyst
- Psychometrist
- Administrator
- Therapist
- Public Health Statistician Trainee
- Marriage and Family Therapist
- Community College Counselor
- Personnel Analyst/Manager
- University Professor
- Mental Health Worker
- Drug Abuse Counselor
- Career Counselor
- Behavior Analyst
- Training Specialist
- Research Analyst
- Research Technician

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### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

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[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

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### FINANCIAL AID

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# PSYCHOLOGY (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### PSYCHOLOGY

Associate in Arts Degree in Psychology for Transfer (AA-T) – 19.0-20.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Nineteen-Twenty (19-20) units required for the major.**

#### Required for the Major (10 units)

PSY	214	Statistical Methods in Behavioral Sciences	4.0
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#### OR

MATH	119	Elementary Statistics (4.0)	
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PSY	101	Introduction to Psychology	3.0
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PSY	212	Research Methods in Psychology	3.0
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**List A: Select one (3-4 units):** **3.0-4.0**

BIOL	100	Principles of Biological Science (4.0)	
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BIOL	180	General Biology: Molecules, Cells and Genetics (4.0)	
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PSY	200	Biological Psychology (3.0)	
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**List B: Select one (3 units):** **3.0-4.0**

Any course from List A not already used.

PSY	202	Learning (3.0)	
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**List C: Select one (3 units):** **3.0**

Any course from List A or B not already used.

PSY	204	Developmental Psych: Conception to Death (3.0)	
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PSY/SOC	206	Social Psychology (3.0)	
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PSY	208	Abnormal Psychology (3.0)	
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Total Major Units	18.0-19.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>



# SOCIAL SCIENCE

## DEGREES, CERTIFICATES AND AWARDS

Associate in Art Degree (A.A.)

### DESCRIPTION

The Social Science major is presented with course offerings in American Indian Studies, Anthropology, Economics, Geography, History, Latino/Latina Studies, Political Science, Sociology and Religious Studies. It serves as a knowledge base for the social sciences subject areas and provides subject matter preparation for pursuit of the bachelor's degree at a four-year institution that can lead to the Single Subject Teaching Credential in Social Science.

### PROGRAM LEARNING OUTCOMES

1. Demonstrate clear and effective writing about a specified social science concentration of study.
2. Demonstrate clear and effective oral communication about a specified social science concentration of study.
3. Relate knowledge associated with a specified social science concentration of study to global and indigenous perspectives.

### ASSOCIATE DEGREE PROGRAM

The Associate in Arts (AA) or the Associate in Science (AS) Degree involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

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### FINANCIAL AID

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### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Business
- College Professor
- Community Service
- Economist
- Geographer
- Graduate School
- High School Teacher
- Government and Civil Service
- Historian
- Human Relations
- Journalist
- Middle School Teacher
- Military Service
- Law Enforcement
- Lawyer
- Lobbyist
- Personnel Specialist
- Politician
- Public Relations
- Sociologist

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

# SOCIAL SCIENCE

## ASSOCIATE DEGREE PROGRAM

### SOCIAL SCIENCE MAJOR – A.A. DEGREE

Required courses for the major (18.0 units).

The requirements for a major in Social Science may be satisfied by completing eighteen (18.0) units from the following list of courses with grades of "C" or better. At least one course must be taken from four of the following nine fields.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### American Indian Studies

AIS/ANTH	106	Indians of North America	3.0
AIS/ANTH	108	Indians of the Southwest	3.0

#### Anthropology

ANTH	100	Physical Anthropology	3.0
ANTH	102	Cultural Anthropology	3.0
ANTH/AIS	106	Indians in North America	3.0
ANTH/AIS	108	Indians of the Southwest	3.0
ANTH	120	Introduction to Archaeology	3.0

#### Economics

ECON	101	Intro to Microeconomics	3.0
ECON	102	Intro to Microeconomics	3.0

#### Geography

GEOG	100	Physical Geography	3.0
GEOG	102	Cultural Geography	3.0
GEOG	108	World Regional Geography	3.0

#### History

HIST	100	Early World History	3.0
HIST	101	Modern World History	3.0
HIST	110	Early Western Civilization	3.0
HIST	111	Modern Western Civilization	3.0
HIST	120	United States History: Prehistory to Reconstruction	3.0
HIST	121	United States History: Reconstruction to Present	3.0
HIST/LAS	130	Early Latin America	3.0
HIST/LAS	131	Modern Latin America	3.0
HIST/LAS	132	History of Mexico	3.0
HIST	140	East Asian History	3.0
HIST	150	Survey of African History	3.0
HIST	160	Middle Eastern from 600	3.0
HIST	220	Woman in American History	3.0
HIST	222	History of California	3.0
HIST/LAS	225	Mexican American History	3.0

#### Latino/Latina Studies

LAS/HIST	130	Early Latin America	3.0
LAS/HIST	131	Modern Latin America	3.0
LAS/HIST	132	History of Mexico	3.0
LAS/HIST	225	Mexican American History	3.0

#### Political Science

POLS	100	Introduction to Political Science	3.0
POLS	102	American Government and Politics	3.0
POLS	104	Comparative Politics	3.0
POLS	106	Introduction to International Relations	3.0

#### Religious Studies

RELS	100	Religions of the Modern World	3.0
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#### Sociology

SOC	101	Introduction to Sociology	3.0
SOC	102	Contemporary Social Problems	3.0

**Total Major Units**

**18.0**

# SOCIOLOGY (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree in Sociology for Transfer (AA-T)

### DESCRIPTION

Sociology is the study of the groups people build, the makeup of human groups, and changes in their makeup over time. This study of human groups assists students to learn who we are, to get closer to the truth about social work, and to become aware of ways to achieve desired social ends. Sociology, like other social science disciplines does not educate students in specialized skills. Sociology and other liberal arts majors stress the ability to observe, organize and write clearly, as well as the development of skills in the analysis of data and in collaborating with others.

**The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.**

### PROGRAM LEARNING OUTCOMES

- 1 Demonstrate an understanding of how social structures (families, schools, churches, laws) influence day to day experiences of individuals.
- 2 Demonstrate the ability to find information, assess evidence and evaluate arguments in empirical studies.
- 3 Demonstrate the ability to be able to find empirical studies and assess the evidence in those studies.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

**The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree** is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Social Worker
- Teacher
- Criminologist
- Parole/Probation Officer
- Correctional Counselor
- Youth Counselor
- Public Health Statistician
- Industrial Sociologist
- Demographer
- Recreational Specialist
- Urban Planner
- Social Ecologist
- Public Relations Consultant
- Interviewer/Researcher
- Statistician
- Population Analyst
- Public Opinion Analyst
- Migration Specialist
- Employment Counselor
- Writer/Journalist
- Management Analyst
- Budget Analyst
- Government Research Analyst

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# SOCIOLOGY (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### SOCIOLOGY

Associate in Arts Degree in Sociology for Transfer (AA-T) – 18.0-19.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:  
A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum  
B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Associate Degree Major Core – 18.0-19.0 units**
- A. Required for the Major**
- |     |     |                           |     |
|-----|-----|---------------------------|-----|
| SOC | 101 | Introduction to Sociology | 3.0 |
|-----|-----|---------------------------|-----|
- B. Select six/seven (6-7) units from:** 6.0-7.0
- |        |     |                                    |  |
|--------|-----|------------------------------------|--|
| * SOC  | 102 | Contemporary Social Problems (3.0) |  |
| * MATH | 119 | Elementary Statistics (4.0)        |  |
- OR**
- |       |     |                                                  |  |
|-------|-----|--------------------------------------------------|--|
| * PSY | 214 | Statistical Methods in Behavioral Sciences (4.0) |  |
| * PSY | 212 | Research Methods in Psychology (3.0)             |  |
- C. Select six (6) units from:** 6.0
- |           |     |                                         |  |
|-----------|-----|-----------------------------------------|--|
| * SOC     | 110 | Marriage and the Family (3.0)           |  |
| * SOC/AJ  | 224 | Criminology (Formerly SOC/AJ 124) (3.0) |  |
| * SOC/ADS | 150 | Sociology of Minority Groups (3.0)      |  |
| * SOC/PSY | 206 | Social Psychology (3.0)                 |  |
- D. Select three (3) units from the following:** 3.0
- |        |     |                             |  |
|--------|-----|-----------------------------|--|
| ANTH   | 102 | Cultural Anthropology (3.0) |  |
| GEOG   | 102 | Cultural Geography (3.0)    |  |
| * MATH | 119 | Elementary Statistics (4.0) |  |
- OR**
- |           |     |                                                  |  |
|-----------|-----|--------------------------------------------------|--|
| * PSY     | 214 | Statistical Methods in Behavioral Sciences (4.0) |  |
| PSY       | 101 | Introduction to Psychology (3.0)                 |  |
| * PSY     | 212 | Research Methods in Psychology (3.0)             |  |
| * SOC     | 102 | Contemporary Social Problems (3.0)               |  |
| * SOC     | 110 | Marriage and the Family (3.0)                    |  |
| * SOC/AJ  | 224 | Criminology (Formerly SOC/AJ 124) (3.0)          |  |
| * SOC/ADS | 150 | Sociology of Minority Groups (3.0)               |  |
| * SOC/PSY | 206 | Social Psychology (3.0)                          |  |

\* If not used for required courses under sections B or C, above.

Total Major Units	18.0-19.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# SPANISH (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Art Degree in Spanish for Transfer (AA-T)

### DESCRIPTION

The Spanish for Transfer Degree Program offers courses that serve as a foundation for broad liberal education. It serves as preparation for a career in education, and as supplementary preparation for many careers in diverse areas such as emergency services, the legal and medical professions, social work, business, Foreign Service, public relations, journalism, translation and interpretation. The program provides a linguistic and grammatical study of the language and an in-depth look into the culture of Spanish Speaking countries.

### PROGRAM LEARNING OUTCOMES

1. Analyze and evaluate literary texts through writing.
2. Successfully identify and differentiate between verb tenses in the subjunctive mood.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Banking Representative
- Buyer/Sales Representative
- Civil Service
- Counselor
- Court Interpreter
- Customs Inspector
- Diplomat
- Exchange Coordinator
- Foreign Correspondent
- Foreign Secretary
- Foreign Service Officer
- Foreign Publications/Textbook Editor
- Immigration Specialist
- Import/Export Agent
- Interpreter/Translator
- IRS/Franchise Tax Board
- Law Enforcement Officer
- Librarian
- Media Personnel
- Medical/Health Worker
- Missionary
- Peace Corps Worker
- Public Relations
- International Business Personnel
- Realtor
- Research Assistant
- Sales Representative
- Social Worker
- Teacher
- Technical Writer
- Trade and Commerce Expert
- Travel Industry
- U.S. Immigration/Customs
- U.S. Information Agent

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# SPANISH (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### SPANISH

Associate in Arts in Spanish for Transfer (AA-T) – 19-23 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Nineteen to Twenty-Three (19-23) units required for the major**

#### Required for the Major (10-20 units)

SPAN	100	Elementary Spanish I	5.0
SPAN	110	Elementary Spanish II	5.0
SPAN	200	Intermediate Spanish I	5.0
<b>OR</b>			
SPAN	220	Spanish for Heritage Speakers I	5.0
SPAN	210	Intermediate Spanish II	5.0
<b>OR</b>			
SPAN	221	Spanish for Heritage Speakers II	5.0

#### List A: Select one course (3 units)

SPAN	222	Bilingual Oral Spanish	3.0
SPAN	225	Introduction to Spanish American Literature	3.0
SPAN/HUM	262	Introduction to Chicano/a Studies	3.0

*\* NOTE: If a student places out of any required course and is not awarded units for that course, the student will have to take additional units to compensate for the course/units needed to reach at least 18 total units in the major (per Title 5 regulations). Appropriate course substitutions may be from List A if not already used or from the Substitution Courses listed below.*

#### Substitution Courses:

ANTH	102	Cultural Anthropology	3.0
COMM	150	Intercultural Communication	3.0
HIST/LAS	130	Early Latin America	3.0
HIST/LAS	131	Modern Latin America	3.0
HIST/LAS	132	History of Mexico	3.0
HIST/LAS	225	Mexican American History	3.0
SOC	101	Introduction to Sociology	3.0
SPAN	223	Spanish Reading and Writing	4.0

Total Major Units	19.0-23.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>

# STUDIO ARTS (For Transfer)

## DEGREES, CERTIFICATES AND AWARDS

Associate in Art Degree in Studio Arts for Transfer (AA-T)

### DESCRIPTION

The IVC Art Department serves a diverse group of students, from those who are taking their first and only art instruction, to those who will go on to use art skills in their careers. All students are given both the technical knowledge and the emotional support needed to excel in their art. The study of art at IVC is an ideal way for students to understand their creative potential, whether they choose to work in drawing, painting, ceramics, sculpture or design. Art students learn that art requires a balance between their intellect and their emotions. The IVC Art program offers introductory and intermediate courses that blend both traditional and contemporary art values and Art History courses that satisfy requirements for Humanities credit.

The Associate in Arts for Transfer (AA-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

### PROGRAM LEARNING OUTCOMES

1. Critically analyze, interpret, and evaluate works of art.
2. Develop a foundation of art skills and a high level of craftsmanship by utilizing a variety of tools and technologies associated with the visual arts.
3. Use a diverse range of global events to express personal ideas and opinions through artwork.
4. Identify the theoretical, cultural, and historical contexts of art.
5. Demonstrate appropriate skills needed to articulate their conscious artistic intentions, and express coherent aesthetics.

### ASSOCIATE DEGREE PROGRAM ( For Transfer)

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete a minimum of 60 required semester units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

### CAREER OPPORTUNITIES

Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Artist
- Art Consultant
- Art Critic
- Art Dealer
- Art Historian
- Art Teacher
- Art Therapist
- Arts Administrator
- Ceramicist
- Gallery Director
- Graphic Designer
- Jewelry Designer
- Metalsmith
- Muralist
- Painter
- Photographer
- Printmaker
- Restoration Artist
- Sculptor
- Set painter

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



### TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

#### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) - UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> - Western Undergraduate Exchange Programs

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# STUDIO ARTS (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### STUDIO ARTS

Associate in Arts Degree in Studio Arts for Transfer (AA-T) – 24.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### REQUIREMENTS FOR THE DEGREE

- I. **Units/GPA** – Must complete a maximum of 60 CSU-transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. *NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.*
- II. **General Education** – Must complete one of the following general education transfer patterns:
  - A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
  - B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum
- III. **Twenty-Four (24) units required for the major.**

#### Required for the Major (12 units)

ART	102	History of Art II	3.0
ART	110	Design	3.0
ART	112	Design	3.0
ART	120	Drawing I	3.0

#### List A: Select one (3 units):

ART	100	History of Art I (3.0)	3.0
ART	104	History of Modern Art (3.0)	3.0

#### List B: Select three (9 units):

ART	122	Drawing II (3.0)	3.0
ART	124	Painting I (3.0)	3.0
ART	126	Painting II (3.0)	3.0
ART	128	Watercolor Painting (3.0)	3.0
ART	160	Graphic Design (3.0)	3.0
ART	170	Photography – Beginning (3.0)	3.0
ART	220	Drawing III (3.0)	3.0
ART	222	Drawing IV (3.0)	3.0
ART	260	Advertising/Graphic Design (3.0)	3.0

Total Major Units	24.0
CSU-GE or IGETC Pattern	37.0-39.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>



# TRANSMISSION AND POWER TRAIN SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

The Transmission and Power Train Specialization Certificate of Achievement is designed to prepare students for employment as Automatic Transmission and Power Train Specialists. The program will provide the necessary skills and knowledge through the use of modern tools and equipment to diagnose and repair automatic and manual transmissions using the latest technology applications. In addition students will learn to use electronic diagnostic equipment to troubleshoot electronic transmission units. This program will prepare students for employment in the following fields: transmission specialists, transmission installers, and repair technicians. Upon successful completion of this program, students will be prepared to take Automotive Service Excellence (ASE) exams for Automatic Transmissions (Test A2) and Manual Drive Transmission (Test A3).

### PROGRAM LEARNING OUTCOMES

1. Demonstrate safe operation of transmission hand tools and shop equipment.
2. Identify major transmission shop equipment components, transmission tester dyno, and hydraulic transmission flasher unit.
3. Diagnose major components failures and recommended repairs.
4. Perform typical major components.

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

### CAREER OPPORTUNITIES

Jobs are available with auto repair shops and machine shops. Experienced technicians with leadership ability may advance to shop supervisors, service writers and service managers.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

# TRANSMISSION AND POWER TRAIN SPECIALIZATION

## CERTIFICATE PROGRAM

### TRANSMISSION AND POWER TRAIN SPECIALIZATION

Twenty (20) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	070	Automotive Techniques and Applications	3.0
AUT	130	Automotive Electronics I	3.0
AUT	180	Manual Transmissions and Power Trains	4.0
AUT	220	Mechanical Automatic Transmissions	4.0
AUT	250	Electronic Automatic Transmissions	4.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0

**Total Certificate Units** **20.0**

# UNIVERSITY STUDIES

## DEGREES, CERTIFICATES AND AWARDS

Associate in Arts Degree (A.A.)

### DESCRIPTION

The Associate in Arts (A.A.) degree in University Studies is a degree program designed for students who would like to earn an associate's degree while preparing to transfer to an accredited four-year university. Students planning to transfer are cautioned that this curriculum may not provide for completion of the lower division requirements for transfer to a four-year institution. See a counselor for specific transfer requirements.

### PROGRAM LEARNING OUTCOMES

1. See GE Program Outcomes/Course Alignment Grid at [www.imperial.edu/faculty-and-staff/campus-committees/student-learning-outcomes/](http://www.imperial.edu/faculty-and-staff/campus-committees/student-learning-outcomes/)

### ASSOCIATE DEGREE PROGRAM

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# UNIVERSITY STUDIES

## ASSOCIATE DEGREE PROGRAM

### UNIVERSITY STUDIES MAJOR – A.A. DEGREE

#### ASSOCIATE DEGREE REQUIREMENTS

1. **Graduation Requirements – ALL OPTIONS**
  - a. Complete all IVC Graduation and Institutional Requirements 3.0-6.0
2. **General Education (GE) – Select one pattern related to your educational goal:**

*All courses must be completed with a grade of "C" or better.*

  - a. CSU GE-Breadth Pattern (39.0 units) 34.0-39.0
  - b. IGETC Pattern (34.0-37.0 units)
3. **Minimum of eighteen (18.0) units in one selected Emphasis 18.0**

*All courses must be completed with a grade of "C" or better.*

  - a. **Emphasis – Select one:**
    - 1) Emphasis in Arts and Humanities
    - 2) Emphasis in Behavioral and Social Sciences
    - 3) Emphasis in Science and Mathematics
  - b. **Within the selected Emphasis:**
    - 1) Select a minimum of two different subject areas.
    - 2) Complete a minimum of six (6.0) units in one subject area.
    - 3) Courses selected can be used to also fulfill GE areas.
4. **Electives**

Enough elective units, if necessary, to total 60.0 degree applicable units required for this degree.

#### Emphasis in Arts and Humanities

Select a minimum of eighteen (18.0) units from the following Arts and Humanities courses. For depth, include a minimum of two courses from a single discipline; for breadth, include course from at least two disciplines. Courses can be counted toward completion of General Education requirements.

These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the way in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

This area of emphasis allows students to select courses that will prepare them for possible majors at four-year colleges and universities typically within the fields of Art History, Communication Studies, Language Studies, Literature, Humanities, Philosophy/Religious Studies and other disciplines.

AMSL	100, 102, 104, 200, 202, 204
ART	100, 102, 104, 106
COMM	100, 110, 125, 130, 150, 180
ENGL	102, 220, 221, 222, 223, 224, 225, 226, 250
FILM	230
FREN	100, 110, 201, 211
HIST	100, 101, 110, 111, 120, 121, 130, 131, 132, 140, 150, 160, 220, 222, 225
HUM	100, 226, 262
JRN	100
LAS	130, 131, 132, 225
MUS	100, 102, 200, 202
PHIL	100, 102, 104, 106
RELS	100, 104
SPAN	100, 110, 200, 210, 220, 221, 225, 262
THEA	100

# UNIVERSITY STUDIES

## Emphasis in Behavioral and Social Science

Select a minimum of eighteen (18.0) units from the following Behavioral and Social Sciences courses. For depth, include a minimum of two courses from a single discipline; for breadth, include courses from at least two disciplines. Courses can be counted toward completion of General Education requirements.

These courses emphasize perspectives, concepts, theories and methodologies of the disciplines typically found in the vast variety of disciplines that comprise study in the Behavioral and Social Sciences. Students will learn about themselves and others as member of a larger society. Topics and discussions to stimulate critical thinking about ways people have acted in response to their societies allow students to evaluate how societies and social subgroups operate.

This area of emphasis allows students to select courses that will prepare them for possible major at four-year colleges and universities typically within the fields of History, Ethnic Studies, Political Science, Psychology, Sociology, and other related disciplines.

AJ	100, 102, 106, 224
ADS	120, 150
AIS	106, 108
AMSL	110
ANTH	102, 106, 108, 120
CDEV	103, 104
ECON	101, 102
GEOG	102, 108
HIST	100, 101, 110, 111, 120, 121, 130, 131, 132, 140, 150, 160, 220, 222, 225
LAS	130, 131, 132, 225
POLS	100, 102, 104, 106
PSY	101, 104, 120, 142, 144, 146, 200, 202, 204, 206, 208, 212
SW	220
SOC	101, 102, 110, 150, 206, 224

## Emphasis in Science and Mathematics

Select a minimum of eighteen (18.0) units from the following Science and Mathematics courses. **Required, one mathematics course above the level of intermediate algebra.** For depth, include a minimum of two courses from a single discipline; for breadth, include courses from at least two disciplines. Courses can be counted toward completion of General Education requirements.

These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in Math emphasize the development of mathematical and quantitative reasoning skills beyond the level intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.

This area of emphasis allows students to select courses that will prepare them for possible majors at four-year colleges and universities typically within the fields of Biology, Chemistry, Earth Science (Geography and/or Geology), Environmental Science, Education, Engineering, Kinesiology, Mathematics, Nursing, Physical Science and other related disciplines.

AG	110, 120, 140, 170
ASTR	100
BIOL	100, 120, 122, 140, 150, 180, 182, 200, 202, 204, 206, 220
CHEM	100, 160, 200, 202
CIS	101, 202, 210
CS	221, 231, 281
ENGR	210, 212, 240
ENVS	110
GEOG	100
GEOL	100, 110
MATH	110, 112, 119, 122, 140, 150, 170, 190, 192, 194, 210, 220, 230, 240
PHSC	110
PHYS	200, 202, 204

IVC Graduation and Institutional Requirements	3.0-6.0
CSU-GE or IGETC Pattern	34.0-39.0
Total Emphasis Units	18.0
Electives (as needed to reach 60.0 degree applicable units)	—
<b>Total Maximum Units:</b>	<b>60.0</b>

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# WATER TREATMENT SYSTEMS TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate of Science Degree (A.S.)  
Certificate of Achievement  
Specialization Certificate  
Wastewater Treatment

## DESCRIPTION

Water Technology is a career oriented vocational program involving the study of water/wastewater theory and principles. Professionalism, workplace skills and responsibilities are stressed along with safety and an awareness of hazardous materials control. The Water Treatment Systems Technology degree and certificates are designed to provide students with the comprehensive understanding and manipulative skills, technical knowledge, and related trade information required to become State-certified operators in Water Treatment and Water Distribution. This program will allow students to comply with the necessary requirements for certification up to Grade III level. Once the student becomes a state certified operator on any or all disciplines, he or she will qualify to seek employment in the Water Treatment Systems Technology disciplines anywhere in the State.

## PROGRAM LEARNING OUTCOMES

1. Interpret and use analytical data to perform operational adjustments.
2. Assume responsibility for water treatment operational changes.
3. Understand and evaluate issues concerning the proper use and distribution of the water natural resources.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

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**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

- Water Treatment Plant Operator
- Wastewater Treatment Plant Operator
- Water Distribution Operator

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



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# WATER TREATMENT SYSTEMS TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### WATER TREATMENT SYSTEM TECHNOLOGY MAJOR – A.S. DEGREE

Eighteen (18.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.0 units)

WT	105	Computational Procedures Operator I	3.0
WT	110	Water Treat Plant Operator I	4.0
WT	140	Water Distribution Systems	4.0
WT	205	Computational Procedures Operator II	3.0
WT	210	Water Treat Plan Operator II	4.0

**Total Major Units**

**18.0**

## CERTIFICATE PROGRAM(S)

### WATER TREATMENT SYSTEMS TECHNOLOGY CERTIFICATE

Eighteen (18.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (18.0 units)

WT	105	Computational Procedures Operator I	3.0
WT	110	Water Treat Plant Operator I	4.0
WT	140	Water Distribution Systems	4.0
WT	205	Computational Procedures Operator II	3.0
WT	210	Water Treat Plan Operator II	4.0

**Total Certificate Units**

**18.0**

### SPECIALIZATION CERTIFICATE

The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Water Treatment Systems Technology.

## SPECIALIZATION CERTIFICATE

### WATER TREATMENT SYSTEMS TECHNOLOGY: WASTEWATER TREATMENT SPECIALIZATION CERTIFICATE

Twelve (12.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

## PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of: Water source, treatment, flocculation, sedimentation, odor control, plant operation and laboratory procedures.
2. Ability to calculate all basic mathematic problems that applied to treatment plant operations. This calculation includes fractions decimals, percentages, ratios, proportions, volumes, metric system and estimation.
3. Develop preventative maintenance programs and maintain records of inspection and repair for all water works.

#### I. Required courses for the certificate (12.0 units)

WT	130	Wastewater Treatment Operator I	4.0
WT	150	Wastewater Collection Systems	4.0
WT	230	Wastewater Treatment Operator II	4.0

Total Major Units

18.0

Water treatment Specialization Units

12.0

**Total Certificate Units**

**30.0**



# WELDING TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

Certificate of Achievement

### DESCRIPTION

The Imperial Valley College Welding Technology Program curriculum is designed to educate, train, and prepare our students to meet the minimum Knowledge Skill Sets and Technical/Manipulative Skill Sets for Entry Level Welders as established by the American Welding Society (AWS). The emphasis of the teaching and learning activities is to qualify the student to meet the minimum competencies for the Theory, Technology, Applied Science, and Technical/Manipulative Skills Sets that are the foundation of the A.W.S.; S.E.N.S.E. Standards (Schools Excelling through National Skills Standards Education). All of the IVC Welding Technology courses are a combination of academic (Lecture) and Technical/Manipulative (Lab) instructional activities. The Welding Technology courses include core competencies for students to attain qualification to Entry Level Welding Personnel SENSE Standards. These courses are; WELD 100, Welding Technology, WELD 115 Flux Cored Arc Welding on Plate, WELD 120 Gas Tungsten Arc Welding on Plate, WELD 130 Shielded Metal Arc Welding on Plate, WELD 220 Gas Tungsten Arc Welding on Pipe, and WELD 230 Shielded Metal Arc Welding on Pipe. Some of the major teaching and learning modules throughout the Welding Technology Program are; Industrial Safety, Oxy-Fuel Welding and Cutting, Technical Drawing Interpretation, Weld/Welding Symbols, Fundamentals of Welding Metallurgy, Plasma Arc Cutting, Welding Power Sources, Welding Materials, Air Carbon Arc Cutting, and Welder Qualification and Certification.

### PROGRAM LEARNING OUTCOMES

1. Explain the hierarchy of "Hazard Control" in a Welding Environment and how this relates to Occupational Safety and Health, to include; (1) Identification of Hazards, (2) Elimination of Hazards, (3) Administration of Hazards, (4) Engineering Controls, and (5) Personal Protective Equipment.
2. Demonstrate an understanding of Oxyacetylene Welding and Cutting to include the proper and safe procedures for set-up and use of related equipment.
3. Define and explain the Physical and Mechanical properties of metals and how these influence the development of Performance Qualification Records (PQR) and Welding Procedure Specifications (WPS) related to welding processes and applications.
4. Explain and Demonstrate the proper set-up and use of all related components used in Gas Tungsten Arc Welding (GTAW).
5. Using the prescribed specifications and accepted parameters, apply the predetermined inspection criteria to assess "acceptable" weld samples for Destructive and Nondestructive testing.

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#### CAREER OPPORTUNITIES

- Assembly Worker
- Auto Body Worker
- Structural and Iron Work Welder
- Machine Tool Operator
- Sheet Metal Worker
- Tool and Die Maker
- Welder

#### Industry fields:

- Aerospace and Manufacturing
- Automotive and Transportation
- Pipe and Vessel Welding
- Fabrication and Maintenance
- Petroleum and Energy
- Shipbuilding and Heavy Industry

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# WELDING TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### WELDING TECHNOLOGY MAJOR – A.S. DEGREE

Twenty-one (21) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (21.0 units)

WELD 100	Welding Technology	5.0
WELD 115	Flux Cored Arc Welding on Plate	3.0
WELD 125	Gas Tungsten Arc Welding on Plate	3.0
WELD 135	Shielded Metal Arc Welding on Plate	4.0
WELD 225	Gas Tungsten Arc Welding on Pipe	3.0
WELD 230	Shielded Metal Arc Welding on Pipe	3.0

**Total Major Units** **21.0**

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## CERTIFICATE PROGRAM

### WELDING TECHNOLOGY CERTIFICATE

Twenty-one (21.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### II. Required courses for the major (21.0 units)

WELD 100	Welding Technology	5.0
WELD 115	Flux Cored Arc Welding on Plate	3.0
WELD 125	Gas Tungsten Arc Welding on Plate	3.0
WELD 135	Shielded Metal Arc Welding on Plate	4.0
WELD 225	Gas Tungsten Arc Welding on Pipe	3.0
WELD 230	Shielded Metal Arc Welding on Pipe	3.0

**Total Certificate Units** **21.0**