ASSOCIATE DEGREE AND
CERTIFICATE OF ACHIEVEMENT
PROGRAMS
# MAJOR & CERTIFICATE INFORMATION SHEETS - TABLE OF CONTENTS

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ADDICTION DISORDER STUDIES

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree (A.S.)
Certificate of Achievement

DESCRIPTION
The Addiction Disorder 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 CAADTE (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
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.

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

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUmentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
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/
ASSOCIATE DEGREE PROGRAM

ADDITION DISORDER 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 (30.0 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ADS 101</td>
<td>Alcoholism: Intervention, Treatment, and Recovery</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS 110</td>
<td>Physiological Effects of Alcohol and Drugs</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS/PSY 120</td>
<td>Introduction to Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS/PSY 130</td>
<td>Group Leadership and Group Process</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS 200</td>
<td>Family counseling Approaches to Alcohol and Drug Abuse</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS/PSY 210</td>
<td>Crisis Intervention and Referral Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS/PSY 220</td>
<td>Practicum</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS 240</td>
<td>Ethics and Legal Standards in Alcohol Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS 251</td>
<td>Dual Diagnosis</td>
<td>3.0</td>
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II. Minimum of six (6.0) units selected from: 6.0

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ADS/SOC 150</td>
<td>Sociology of Minority Groups</td>
<td>3.0</td>
</tr>
<tr>
<td>ADS 176</td>
<td>Sex and Gambling Addiction</td>
<td>1.0</td>
</tr>
<tr>
<td>ADS 177</td>
<td>Anger Management</td>
<td>1.0</td>
</tr>
<tr>
<td>ADS 178</td>
<td>Life Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>ADS 230</td>
<td>Alcohol and Drug Prevention and Education</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
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<tr>
<td>PSY 144</td>
<td>The Psychology of Interpersonal Relationships</td>
<td>3.0</td>
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<tr>
<td>PSY 204</td>
<td>Developmental Psychology: Conception to Death</td>
<td>3.0</td>
</tr>
<tr>
<td>SW 220</td>
<td>Introduction to Social Work</td>
<td>3.0</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
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</table>

Total Major Units 36.0

CERTIFICATE PROGRAM

ADDITION DISORDER 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 major (30.0 units)

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Total Certificate Units 36.0
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

• Police Dispatcher
• Customs Agent
• Investigator Trainer
• Drug Enforcement
• Insurance Investigator
• Code Enforcement
• Border Patrol Agent
• Criminal Investigator
• Legal Secretary
• Fingerprint Classifier
• Store Detective
• Security Specialist
• Matron

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
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/
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
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 60 semester units of 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:
www.ASSIST.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiicc.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/
## 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 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 (6.0 units)**
   - AJ 100 Introduction to the Administration of Justice 3.0
   - AJ 102 Concepts of Criminal Law 3.0

   **List A: Select two courses (6.0 units)**
   - 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)

   **List B: Select two courses (6.0-7.0 units)**
   - 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-B or IGETC Pattern** 37.0-39.0
   **Electives (as needed to reach 60 CSU transferable units)**
   **Total Maximum Units:** 60.0
DEGREES, CERTIFICATES AND AWARDS

ADMINISTRATION OF JUSTICE

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

DESCRIPTION
The Administration of Justice: Law Enforcement Program offers curriculum to prepare students with knowledge and skills necessary to complete a law enforcement field training program certified by the California Commission on Peace Officer Standards and Training (P.O.S.T.). Graduates from the basic core courses may be eligible for employment opportunities in government entities such as State, County and City Law Enforcement agencies specializing in police services, and private enterprise where law enforcement principles are applied.

PROGRAM LEARNING OUTCOMES
1. Students will successfully pass all three levels of peace officer training, including physical, psychomotor, written, and ethical evaluations.

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.

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.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. 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
- Paralegal
- 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/

FINANCIAL AID
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ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT

ASSOCIATE DEGREE PROGRAM
ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT - A.S. DEGREE
Foury-one (41.0) 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 (41.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POST 160</td>
<td>10.0</td>
</tr>
<tr>
<td>POST 162</td>
<td>13.5</td>
</tr>
<tr>
<td>POST 164</td>
<td>17.5</td>
</tr>
</tbody>
</table>

Total Major Units 41.0

CERTIFICATE PROGRAM
ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT CERTIFICATE
Foury-one (41.0) 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 (41.0)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POST 160</td>
<td>10.0</td>
</tr>
<tr>
<td>POST 162</td>
<td>13.5</td>
</tr>
<tr>
<td>POST 164</td>
<td>17.5</td>
</tr>
</tbody>
</table>

Total Certificate Units 41.0
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 60 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 – CSU and UC Articulation Agreements and Majors Search Engine
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www.aiucc.edu - California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

FINANCIAL AID
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# 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

<table>
<thead>
<tr>
<th>I. Units/GPA</th>
<th>Must complete 60 CSU transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework. <strong>NOTE</strong>: 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.</th>
</tr>
</thead>
</table>
| 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 (13.0-14.0 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 (9.0-10.0 units)** |  
  | **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 (0.0-6.0 units)** |  
  | Any course not already used 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-B or IGETC Pattern** |  
  | 37.0-39.0  
  **Electives (as needed to reach 60 CSU transferable units)** |  
  **Total Maximum Units:** |  
  | 60.0 |
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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# AGRICULTURE BUSINESS MANAGEMENT

## CERTIFICATE PROGRAM

### AGRICULTURE BUSINESS MANAGEMENT

Eighteen to Ninteen (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)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 120</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AG 130</td>
<td>Agricultural Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>AG 134</td>
<td>Agricultural Business Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>AG 136</td>
<td>Agricultural Sales, Communication, and Service Management</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Introduction to Macro Economics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 138</td>
<td>Computer Applications in Agriculture (3.0)</td>
</tr>
<tr>
<td>AG 140</td>
<td>Principles of Plant Science (4.0)</td>
</tr>
</tbody>
</table>

**Total Certificate Units** 18.0-19.0
AGRICULTURE PLANT SCIENCE (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Agriculture Plant Science for Transfer (AS-T)

DESCRIPTION
The Associate in Science in Agriculture Plant Science for Transfer Degree provides for 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 transfer and prepare to seek employment. Careers may include Agricultural Products Inspector, Crop Consultant, Soil Surveyor, Farm Manager/Operator, Land-Use Planner, Plant Breeder, and Organic Certification Specialist.

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 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 commonly used in production.
3. Demonstrate understanding of scientific research and display critical thinking skills related to hypothesis development and data interpretation as applied to the decision making process related to 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 60 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.

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.

- Agrimarketing Representative
- Agricultural Products Inspector
- Agronomist
- Agricultural Chemical Fertilizer Sales
- Farm and Ranch Management
- Cooperative Extension Agent
- Crop Consultant
- Crop Production
- Agronomic Production Manager
- County Agricultural Extension Agents
- Plant Breeder
- Soil Surveyor Vocational Agriculture Teacher
- Crop Scout/Consultant
- Education Specialist
- Farm Manager
- 4-H Association Youth Specialist
- Cooperative Manager
- International Agronomist
- Land Reclamation Specialist
- Land-Use Planner
- Agronomic Production Manager
- Conservation/Environmental Technician
- High School Agriculture Teacher
- Plant Breeder Post secondary Teacher
- Seed, Chemical and Fertilizer Consultant

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/](http://www.imperial.edu/courses-and-programs/programs-of-study/)

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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.
# AGRICULTURE PLANT SCIENCE (For Transfer)

**ASSOCIATE DEGREE PROGRAM**

**AGRICULTURE PLANT SCIENCE**
Associate in Science Degree in Agriculture Plant Science for Transfer (AS-T) – 21.0-28.0 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 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. Interssegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. **Twenty-one to Twenty-eight (21-28) units required for the major**

<table>
<thead>
<tr>
<th>Required for the Major (18.0-19.0 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 120 Soil Science 3.0</td>
</tr>
<tr>
<td>CHEM 100 Introduction to Chemistry 4.0</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>CHEM 200 General Inorganic Chemistry I 5.0</td>
</tr>
<tr>
<td>AG 130 Agricultural Economics 3.0</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>ECON 101 Introduction to Micro Economics 3.0</td>
</tr>
<tr>
<td>MATH 119 Elementary Statistics 4.0</td>
</tr>
<tr>
<td>AG 140 Principles of Plant Science 4.0</td>
</tr>
</tbody>
</table>

**List A: Select one course (3.0 units)**

| AG 245 Plant Propagation/Production 3.0 |

**List B: Select (0.0-6.0 units)**

Any course not already used above.

| AG 170 Irrigation and Drainage (3.0) |
| AG 220 Irrigation and Drainage (3.0) |
| AG 230 Fertilizer and Soil Amendments (3.0) |

Total Major Units 21.0-28.0

CSU GE-B or IGETC Pattern 37.0-39.0

Electives (as needed to reach 60 CSU transferable units)

**Total Maximum Units:** 60.0
AGRICULTURE PLANT SCIENCE

DEGREES, CERTIFICATES AND AWARDS
Certificate of Achievement

DESCRIPTION
Agriculture Plant Science encompasses the study of the plant, soil, and water resources that are foundational to all agro-ecosystems and prepares the student 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.

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 Agent
• 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

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TRANSFER PREPARATION
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CERTIFICATE PROGRAM

AGRICULTURE PLANT SCIENCE

Nineteen (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 (10.0)
- AG 120 Soil Science 3.0
- AG 140 Principles of Plant Science 4.0
- AG 245 Plant Propagation/Production 3.0

II. Acceptable courses for the certificate (select a minimum of 9 units)
- AG 134 Agricultural Business Organization (3.0)
- AG 138 Computer Applications in Agriculture (3.0)
- AG 170 Principles of Entomology (3.0)
- AG 220 Irrigation and Drainage (3.0)

Total Major Units 19.0
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 OHSA 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
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.

TRANSFER PREPARATION
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www.aiicu.edu – California Independent Colleges and Universities, Association of
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## 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 101</td>
<td>Air Conditioning and Refrigeration Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 102</td>
<td>Residential Air Conditioning Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 103</td>
<td>Air Conditioning Electrical Circuits and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 104</td>
<td>Air Conditioning Heating Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 105</td>
<td>Heat Load Calculation and Measurements</td>
<td>2.0</td>
</tr>
<tr>
<td>ACR 106</td>
<td>Air Conditioning Ventilation Duct Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>BLDC 130</td>
<td>Carpentry Layout and Framing</td>
<td>4.0</td>
</tr>
<tr>
<td>EWIR 110</td>
<td>Electrical Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD 100</td>
<td>Welding Technology</td>
<td>5.0</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 101</td>
<td>Air Conditioning &amp; Refrigeration Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 102</td>
<td>Residential Air Conditioning Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 103</td>
<td>Air Conditioning Electrical Circuits and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 104</td>
<td>Air Condition Heating Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>ACR 105</td>
<td>Heat Load Calculation and Measurements</td>
<td>2.0</td>
</tr>
<tr>
<td>ACR 106</td>
<td>Air Conditioning Ventilation Duct Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 17.0
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.

FINANCIAL AID
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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.

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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CERTIFICATE PROGRAM

ALTERNATIVE ENERGY-SOLAR TECHNOLOGY
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLDC 101</td>
<td>Safety Standards (Cal/OSHA) 30-Hour Card</td>
<td>3.0</td>
</tr>
<tr>
<td>EWIR 110</td>
<td>Electrical Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>RNEW 118</td>
<td>Alternative Energies</td>
<td>4.0</td>
</tr>
<tr>
<td>RNEW 150</td>
<td>Solar Energy Systems PV1</td>
<td>3.0</td>
</tr>
<tr>
<td>RNEW 151</td>
<td>Solar Electrical Systems PV2</td>
<td>3.0</td>
</tr>
<tr>
<td>RNEW 152</td>
<td>Solar Heating (SH)</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 22.0
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 60 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
- Ethnologist
- Bilingual Education Consultant
- Medical Anthropologist
- Primatologist
- Zoo Director
- Museum Program Director
- Museum Registrar
- Forensic Anthropologist
- Folklorist

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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 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.

#### Required for the Major (13.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 100</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 102</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 120</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 119</td>
<td>4.0</td>
</tr>
</tbody>
</table>

#### List A. Select one (4.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>List A.</td>
<td>Select one (4.0 units)</td>
</tr>
<tr>
<td>GEOL 100</td>
<td>General Geology</td>
</tr>
<tr>
<td>PSY 212</td>
<td>Research Methods in Psychology</td>
</tr>
</tbody>
</table>

#### List B. Select one course (3.0-4.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>List B.</td>
<td>Select one course (3.0-4.0 units)</td>
</tr>
<tr>
<td>AJS</td>
<td>Indians of North America</td>
</tr>
<tr>
<td>AJS</td>
<td>Indians of the Southwest</td>
</tr>
<tr>
<td>HIST/LAS 130</td>
<td>Early Latin America</td>
</tr>
<tr>
<td>HIST/LAS 131</td>
<td>Modern Latin America</td>
</tr>
<tr>
<td>HIST/LAS 132</td>
<td>History of Mexico</td>
</tr>
<tr>
<td>HIST 140</td>
<td>East Asian History</td>
</tr>
<tr>
<td>HIST 150</td>
<td>Survey of African History</td>
</tr>
<tr>
<td>HIST 160</td>
<td>Middle East from 600</td>
</tr>
<tr>
<td>HIST 220</td>
<td>Women in American History</td>
</tr>
<tr>
<td>HIST/LAS 225</td>
<td>Mexican American History</td>
</tr>
<tr>
<td>RELS 100</td>
<td>Religions of the Modern World</td>
</tr>
</tbody>
</table>

Total Major Units: 19.0-20.0

CSU GE-B or IGETC Pattern: 37.0-39.0

Electives (as needed to reach 60 CSU transferable units)

Total Maximum Units: 60.0
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.

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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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 110</td>
<td>Engine Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 125</td>
<td>Automotive Brakes</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 130</td>
<td>Automotive Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 150</td>
<td>Automotive Electronics II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 155</td>
<td>Suspension &amp; Wheel Alignment</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 160</td>
<td>Engine Performance Tune-Up</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 170</td>
<td>Engine Diagnosis &amp; Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 180</td>
<td>Manual Trans &amp; Power Trains</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 210</td>
<td>Automotive Air Conditioning</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 220</td>
<td>Mechanical Automatic Transmissions</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 230</td>
<td>Emissions Control &amp; Computer Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AUT 110</td>
<td>Engine Technology</td>
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</tr>
<tr>
<td>AUT 125</td>
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</tr>
<tr>
<td>AUT 130</td>
<td>Automotive Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 150</td>
<td>Automotive Electronics II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 155</td>
<td>Suspension &amp; Wheel Alignment</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 160</td>
<td>Engine Performance Tune-Up</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 170</td>
<td>Engine Diagnosis &amp; Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 180</td>
<td>Manual Trans &amp; Power Trains</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 210</td>
<td>Automotive Air Conditioning</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 220</td>
<td>Mechanical Automatic Transmissions</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 230</td>
<td>Emissions Control &amp; Computer Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 39.0
BRAKES, SUSPENSION AND STEERING SPECIALIZATION
(Auto Technology)

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
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/

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/
## BRAKES, SUSPENSION AND STEERING SPECIALIZATION (Auto Technology)

### CERTIFICATE PROGRAM

**BRAKES, SUSPENSION AND STEERING SPECIALIZATION**
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:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU T 125</td>
<td>Automotive Brakes</td>
<td>4.0</td>
</tr>
<tr>
<td>AU T 130</td>
<td>Automotive Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>AU T 135</td>
<td>Automotive Techniques and Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>AU T 155</td>
<td>Suspension &amp; Wheel Alignment Manual</td>
<td>4.0</td>
</tr>
<tr>
<td>AU T 180</td>
<td>Transmissions and Power Trains</td>
<td>4.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Certificate Units** 20.0
ELECTRICAL/ELECTRONIC AND AIR CONDITIONING SPECIALIZATION (Auto Technology)

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.

FINANCIAL AID
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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/
# ELECTRICAL/ELECTRONIC AND AIR CONDITIONING SPECIALIZATION (Auto Technology)

**CERTIFICATE PROGRAM**

**ELECTRICAL/ELECTRONIC AND AIR CONDITIONING SPECIALIZATION**

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 085</td>
<td>Automotive Maintenance and Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 130</td>
<td>Automotive Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 150</td>
<td>Automotive Electronics II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 210</td>
<td>Automotive Air Conditioning</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 235</td>
<td>Auto Electrical/Electronic Instruments</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Certificate Units:** 18.0
ENGINE PERFORMANCE AND DRIVABILITY SPECIALIZATION
(Auto Technology)

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; determine 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; determine 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.

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/

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.

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/
ENGINE PERFORMANCE AND DRIVABILITY SPECIALIZATION
(Auto Technology)

CERTIFICATE PROGRAM

ENGINE PERFORMANCE AND DRIVABILITY SPECIALIZATION
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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 130</td>
<td>Automotive Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 150</td>
<td>Automotive Electronics II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 160</td>
<td>Engine Performance Tune-Up</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 170</td>
<td>Engine Diagnosis and Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 230</td>
<td>Emissions Control &amp; Computer Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 231</td>
<td>Auto Emission Control System</td>
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</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 22.0
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.

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:
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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/
ENGINE REPAIR AND MACHINIST SPECIALIZATION  
(Auto Technology)

CERTIFICATE PROGRAM

ENGINE REPAIR AND MACHINIST SPECIALIZATION
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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 075</td>
<td>Basic Shop Skills</td>
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</tr>
<tr>
<td>AUT 110</td>
<td>Engine Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 120</td>
<td>Automotive Machine Shop</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 122</td>
<td>High Performance Engine Blueprinting I</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD 100</td>
<td>Welding Technology</td>
<td>5.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 22.0
TRANSMISSION AND POWER TRAIN SPECIALIZATION
(Auto Technology)

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
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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.

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
(Auto Technology)

CERTIFICATE PROGRAM

TRANSMISSION AND POWER TRAIN SPECIALIZATION
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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 130</td>
<td>Automotive Electronics I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 135</td>
<td>Automotive Techniques and Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 180</td>
<td>Manual Transmissions and Power Trains</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 220</td>
<td>Mechanical Automatic Transmissions</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 250</td>
<td>Electronic Automatic Transmissions</td>
<td>4.0</td>
</tr>
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<td>WE 201</td>
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<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
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</tr>
</tbody>
</table>

Total Certificate Units 20.0
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
- Law Enforcement Officer
- Mental Health Counselor
- Interviewer/Researcher
- Social Program Planner
- Market Researcher
- 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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiicc.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

FINANCIAL AID
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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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 100</td>
<td>Physical Anthropology</td>
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</tr>
<tr>
<td>ANTH 102</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 100</td>
<td>Principles of Biological Science</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 122</td>
<td>General Zoology II</td>
<td>4.0</td>
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### Psychology and Child Development

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<th>Units</th>
</tr>
</thead>
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<td>3.0</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics</td>
<td>4.0</td>
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</tbody>
</table>

### OR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 214</td>
<td>Statistical Methods in Behavioral Sciences</td>
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</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY/CDEV 104</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY/ADS  120</td>
<td>Introduction to Counseling</td>
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</tr>
<tr>
<td>PSY 142</td>
<td>Psychology of Adjustment</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 144</td>
<td>The Psychology of Interpersonal Relationships</td>
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</tr>
<tr>
<td>PSY 146</td>
<td>Psychology of Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 200</td>
<td>Biological Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 202</td>
<td>Learning</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 204</td>
<td>Developmental Psychology: Conception to Death</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY/SOC  206</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 208</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 212</td>
<td>Research Methods in Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY/ADS  220/221</td>
<td>Practicum</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Sociology and Social Work

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 102</td>
<td>Contemporary Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 110</td>
<td>Marriage and the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC/ADS  150</td>
<td>Sociology of Minority Groups</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC/PSY  206</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC/AJ   224</td>
<td>Criminology (Formerly SOC/AJ 124)</td>
<td>3.0</td>
</tr>
<tr>
<td>SW 220</td>
<td>Introduction to Social Work</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Major Units** 18.0
BIOLOGY (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Biology for Transfer (AS-T)

DESCRIPTION
Biology 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 Biology.

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 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 (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 60 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.

- 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

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.aicu.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/
# BIOLOGY (For Transfer)

## ASSOCIATE DEGREE PROGRAM

### BIOLOGY

Associate in Science Degree in Biology for Transfer (AS-T) – 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 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:
  - California State University General Education Breadth Pattern (CSU GE-B) for STEM – 33 units minimum
  - Intersegmental General Education Transfer Curriculum (IGETC) for STEM – 31 units minimum

#### III. Thirty (30) units required for the major

**Required for the Major (30.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 180</td>
<td>General Biology: Molecules, Cells, and Genetics</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 182</td>
<td>General Biology: Organismal Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 200</td>
<td>General Inorganic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Inorganic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 192</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 200</td>
<td>General Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>General Physics II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Major Units:** 30.0

**CSU GE-B or IGETC for STEM Pattern:** 31.0-33.0

**Electives (as needed to reach 60 CSU transferable units):**

**Total Maximum Units:** 60.0
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 project 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
The Associate in Arts (AA) or the Associate in Science (AS) Degree involves satisfactory completion of at least 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 require the completion of degree requirements at 4-year colleges and universities.

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

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 – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.siccu.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/
## 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)

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

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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLDC 101</td>
<td>Safety Standards (Cal/OSHA) 30-Hour Card</td>
<td>3.0</td>
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<td>BLDC 110</td>
<td>Construction Blueprints, Specifications, Measurements and Codes</td>
<td>3.0</td>
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<td>BLDC 130</td>
<td>Carpentry Layout and Framing</td>
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</tr>
<tr>
<td>BLDC 135</td>
<td>Residential Plumbing Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>BLDC 140</td>
<td>Building Construction Methods and Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>BLDC 145</td>
<td>Concrete Formwork, Layout and Setting</td>
<td>3.0</td>
</tr>
<tr>
<td>BLDC 170</td>
<td>Essentials of Efficient Green Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>BLDC 180</td>
<td>Building Planning and Cost Estimation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 25.0
SPECIALIZATION CERTIFICATES
The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Building Construction Technology.

ALL COURSES FOR THESE CERTIFICATES 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 7.0
Total Certificate Units: 32.0

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 LxWxD/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 8.0
Total Certificate Units: 33.0
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
- Franchise Tax Board Agent
- Government Accountant
- Government Auditor
- Internal Auditor
- Investment Analyst
- Loan Officer
- Tax Accountant
- Tax Consultant
- Treasurer
- FBI Agent
- Internal Revenue Service 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
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- www.CSU Mentor.edu – CSU System Information
- www.universityofcalifornia.edu/admissions/index.html – UC System Information
- www.acicc.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/
# 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>Practical Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Office Math</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Records Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS 172</td>
<td>Office Procedures for the Workplace</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 180</td>
<td>Microsoft Office Suite for the Workplace</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 210**</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 240</td>
<td>Computer Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 125</td>
<td>EXCEL II</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 201*</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220*</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* **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. Select one course from the following (3.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 063</td>
<td>Essentials in Workplace Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 108</td>
<td>Volunteer Income Tax Preparation (VITA)</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 164</td>
<td>Microsoft Word for the Workplace</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>Practical Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Office Math</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Records Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS 172</td>
<td>Office Procedures for the Workplace</td>
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<td>EXCEL II</td>
<td>1.0</td>
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</tr>
<tr>
<td>WE 220*</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* 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. Select one course from the following (3.0 units)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>BUS 063</td>
<td>Essentials in Workplace Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 108</td>
<td>Volunteer Income Tax Preparation (VITA)</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 164</td>
<td>Microsoft Word for the Workplace</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* 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
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 qualitative 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 60 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/

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/
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 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.
   Required for the Major (17.0 units)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 126</td>
<td>Business and the Legal Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 220</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Introduction to Micro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Intro to Macro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics (4.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 122</td>
<td>Finite Mathematics (3.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 170</td>
<td>Introductory Calculus with Applications (4.0)</td>
<td></td>
</tr>
</tbody>
</table>

List A: Select one course (3.0-4.0 units)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics (4.0)</td>
<td>3.0-4.0</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Finite Mathematics (3.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 170</td>
<td>Introductory Calculus with Applications (4.0)</td>
<td></td>
</tr>
</tbody>
</table>

List B: Select two courses (6.0 units)
   Any list A course not already used.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems (3.0)</td>
<td></td>
</tr>
<tr>
<td>BUS 124</td>
<td>Introduction to Business (3.0)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Total Major Units 26.0-27.0
CSU GE-B or IGETC Pattern 37.0-39.0
Units that may be double counted 17.0
Electives (as needed to reach 60 CSU transferable units) __________

Total Maximum Units: 60.0
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
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.

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 – CSUs and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
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/

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/
ASSOCIATE DEGREE PROGRAM

BUSINESS ADMINISTRATIVE ASSISTANT MAJOR – A.S. DEGREE
Thirty (30.0) 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 (30.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 105</td>
<td>Business Office Math</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 136</td>
<td>Human Relations in Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Human Resources Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Records Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS 172</td>
<td>Office Procedures for the Workplace</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 180</td>
<td>Microsoft Office Suite for the Workplace</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 210**</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201*</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220*</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* 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 30.0

CERTIFICATE PROGRAM

BUSINESS ADMINISTRATIVE ASSISTANT 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 063</td>
<td>Essentials in Workplace Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Practical Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 105</td>
<td>Business Office Math</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 136</td>
<td>Human Relations in Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Records Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS 172</td>
<td>Office Procedures for the Workplace</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 180</td>
<td>Microsoft Office Suite for the Workplace</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201*</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220*</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* 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 26.0
DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree (A.S.)
Certificate of Achievement

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

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www.universityofcalifornia.edu/admissions/index.html - UC System Information
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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 124</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 126</td>
<td>Business and the Legal Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 132</td>
<td>Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 063</td>
<td>Essentials in Workplace Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Practical Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 120</td>
<td>Retail Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 134</td>
<td>Management Concepts of Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 136</td>
<td>Human Relations in Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 144</td>
<td>Principals of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Human Resources Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 148</td>
<td>Personal Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 220</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 240</td>
<td>Computer Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Excel I (1.0)</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 125</td>
<td>Excel II (1.0)</td>
<td>1.0</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Intro to Micro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Intro to Macro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Major Units 25.0**

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## 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 124</td>
<td>Introduction to Business</td>
<td>3.0</td>
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<tr>
<td>BUS 126</td>
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<tr>
<td>BUS 132</td>
<td>Business Management</td>
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</tr>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Intro to Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
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<th>Units</th>
</tr>
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<tr>
<td>BUS 145</td>
<td>Human Resources Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 148</td>
<td>Personal Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 220</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 240</td>
<td>Computer Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Excel I (1.0)</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 125</td>
<td>Excel II (1.0)</td>
<td>1.0</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Intro to Micro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Intro to Macro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**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.
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/](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](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/

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
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/

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.**

<table>
<thead>
<tr>
<th>CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION BREATH (CSU GE-B) REQUIREMENTS</th>
<th>Minimum Units Required Per Area</th>
</tr>
</thead>
</table>
| **Area A – English Language Communication and Critical Thinking**  
(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 |
| **Area B – Scientific Inquiry and Quantitative Reasoning**  
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 |
| **Area C – Arts and Humanities** - Nine (9) semester or 12/15 quarter units  
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; and, one more course from either Area C1 or C2. | 9 |
| **Area D – American Institutions (AI) and Social Science** (Areas D0 thru D9)  
Nine (9) semester or 12/15 quarter units.  
A least three courses from at least two (2) academic disciplines. |  |
| Area D1/DI (US-1): History (HIST) 120 or 121 | 3 |
| Area D: Human Social, Political and Economic Institutions and Behavior – One course required | 3 |
| **Area E – Lifelong Understanding and Self-Development**  
One Course (3 semester/4 quarter units) |  |
| Area E: Understanding and Self Development | 3 |
| **Total Minimum Units Required** | 39 |

**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.
CHEMISTRY (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Chemistry for Transfer (AS-T)

DESCRIPTION
Chemistry is the study of matter and its transformations. This curriculum provides the beginning basics of a two-year transfer program with emphasis on the chemical nature of matter. This program fulfills the lower division requirements for such majors as chemistry, dentistry, medicine, pharmacy, and environmental science.

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 critical thinking skills related to the scientific methods such as hypothesis development, experimentation, and data interpretation.
2. Articulate fundamental chemical concepts and knowledge as related to natural and chemical phenomena at large.
3. Perform experiments using standard laboratory glasswares and techniques used in the chemical sciences.

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 60 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.

- Agrochemistry
- Analytical Chemistry
- Astrochemistry
- Atmospheric Chemistry
- Biochemistry
- Biotechnology
- Chemical Engineering
- Chemical Technology
- Chemical Sales
- Environmental Chemistry
- Ethnobotany
- Food Chemistry
- Forensic Science
- Materials Science
- Medicine
- Oceanography
- Organic Chemist
- Pharmaceuticals
- Physical Chemistry
- Plastics Industry
- R&D Management
- Science Writer
- Surface Chemistry
- Science Teacher
- Textile Industry

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TRANSFER PREPARATION
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## CHEMISTRY (For Transfer)

### ASSOCIATE DEGREE PROGRAM

**CHEMISTRY**

Associate in Science Degree in Chemistry for Transfer (AS-T) – 36.0 units

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

### REQUIREMENTS FOR THE DEGREE

1. **Units/GPA** – Must complete 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.*

2. **General Education** – Must complete the Intersegmental General Education Transfer Curriculum (IGETC) for STEM – 31 units minimum

3. **Thirty-six (36) units required for the major**

   **Required for the Major (36.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 200</td>
<td>General Inorganic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Inorganic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 204</td>
<td>Organic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 206</td>
<td>Organic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 200</td>
<td>General Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>General Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 192</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 194</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

   **Total Major Units** 36.0

   **IGETC for STEM Pattern** 31.0

   **Electives (as needed to reach 60 CSU transferable units)**

   **Total Maximum Units:** 60.0
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.

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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 and may require additional education beyond the baccalaureate degree.

- Adoption Counselor
- Child Advocacy
- Child Care Coordinator
- Camp Counselor
- Child Life Specialist
- Children’s Hospital Worker
- Child Life Specialist
- Before/After School Teacher/Director
- Child Development Specialist
- Community College Instructor
- Consultant to Educational Toy Producers
- Distributor of Educational Toys
- Early Childhood Instructional Aide
- Elementary School Teacher
- Employer-Sponsored Child Care Teacher/Director
- Infant Day Care Teacher/Director
- K-12 Instructional Assistant
- Parent/Adult Education Instructor
- Planned Parenthood Worker
- Playground/Environment Designer
- Preschool Teacher or Administrator
- Resource and Referral Coordinator

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# CHILD DEVELOPMENT

## ASSOCIATE DEGREE PROGRAM

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

Thirty to Thirty One (30.0 - 31.0) 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)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 100</td>
<td>Principles &amp; Practices of Teaching Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 101</td>
<td>Health, Safety and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 102</td>
<td>First Aid &amp; CPR for Teachers of Young Children</td>
<td>1.0</td>
</tr>
<tr>
<td>CDEV 103</td>
<td>Children, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV/PSY 104</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 105</td>
<td>Introduction to Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 106</td>
<td>Observation and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 107</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 200</td>
<td>Practicum-Field Experience</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 120</td>
<td>Language &amp; Literature for Early Childhood</td>
<td>2.0</td>
</tr>
<tr>
<td>CDEV 121</td>
<td>Art for Young Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CDEV 122</td>
<td>Science and Math for Early Childhood</td>
<td>2.0</td>
</tr>
<tr>
<td>CDEV 123</td>
<td>Music &amp; Movement for Early Childhood</td>
<td>2.0</td>
</tr>
<tr>
<td>CDEV 124</td>
<td>Creative Cooking for Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CDEV 125</td>
<td>Multilingual &amp; Multicultural Curriculum for Young Children</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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.**

I. **Required Courses for the certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 101</td>
<td>Health, Safety and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 102</td>
<td>First Aid and CPR for Teachers of Young Children</td>
<td>1.0</td>
</tr>
<tr>
<td>CDEV 103</td>
<td>Children, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV/PSY 104</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 105</td>
<td>Introduction to Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 106</td>
<td>Observation and Assessment</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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**
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 coursework 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
Total Certificate Units: 39.0-40.0

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. Design and implement strategies that support and empower families, promote inclusion and a sense of belonging for all children.
2. Use observations, documentation, assessment, and intervention strategies that supports collaborative practices to reach the full potential of all children.
3. Demonstrate an understanding of young children's diverse characteristics, needs, abilities, and multiple interacting influences to create curriculum and environments that challenge and support individualized learning.
4. Summarize laws, regulations, ethical standards, and referral processes.

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
Total Certificate Units: 36.0-37.0
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 3.0  Infant/Toddler Development
   CDEV 221 3.0  Infant/Toddler Curriculum

Total Major Units 30.0-31.0
Child Development Infant/Toddler Specialization Units 6.0
Total Certificate Units: 36.0-37.0

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 3.0  School-Age Development
   CDEV 231 3.0  School-Age Curriculum

Total Major Units 30.0-31.0
Child Development School-Age Specialization Units 6.0
Total Certificate Units: 36.0-37.0
CISCO CCNA DISCOVERY

DEGREES, CERTIFICATES AND AWARDS
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.

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSU Mentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
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). 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/

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

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/
CISCO CCNA DISCOVERY

CERTIFICATE PROGRAM

CISCO CCNA DISCOVERY CERTIFICATE
Fourteen to seventeen (14.0-17.0) 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 (14.0-17.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 160</td>
<td>CISCO IT Essentials: Hardware and Software</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 162</td>
<td>CISCO CCNA Discovery 1: Introduction to Networks</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 163</td>
<td>CISCO CCNA Discovery 2: Routing and Switching Essentials</td>
<td>4.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0-4.0</td>
</tr>
</tbody>
</table>

Total Certificate Units 14.0-17.0
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 60 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 – CSU and UC Articulation Agreements and Majors Search Engine
- www.CSUMentor.edu – CSU System Information
- www.universityofcalifornia.edu/admissions/index.html - UC System Information
- 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.

- 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
- Politician
- Lawyer
- Fund Raiser
- Health Educator
- Staff Analyst
- Focus Group Leader
- Political Campaign Staff
- Public Affairs Director
- Advertising Account Executive
- Media Consultant
- Marketing Manager
- Sales Representative
- Account Executive
- Corporate 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/
## 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 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 (18.0) units required for the major.**

**Required for the Major (3.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 100</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**List A: Select two courses (6.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 125</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 130</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 180</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**List B: Select two courses (6.0 units)**

Only List A course not already used.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 150</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**List C: Select one course (3.0 units)**

Only List A or B course not already used.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 102</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 201</td>
<td>3.0</td>
</tr>
<tr>
<td>JRN 100</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 101</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 101</td>
<td>3.0</td>
</tr>
</tbody>
</table>

| Total Major Units | 18.0 |
| CSU GE-B or IGETC Pattern | 37.0-39.0 |
| Electives (as needed to reach 60 CSU transferable units) | 30.0-40.0 |
| Total Maximum Units | 60.0 |
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
- Computing Support 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
- Applications Specialist

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/](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 – CSU System Information
- www.universityofcalifornia.edu/admissions/index.html - UC System Information
- www.aiicc.edu – California Independent Colleges and Universities, Association of
- [http://wiche.edu/wue - Western Undergraduate Exchange Programs](http://wiche.edu/wue)

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/)
# 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 126</td>
<td>Business and the Legal Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 220</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 125</td>
<td>Excel II</td>
<td>1.0</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Introduction to Micro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Introduction to Macro Economics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select six (6.0) programming units:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 202*</td>
<td>Programming in Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 210*</td>
<td>Programming in C++</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 170*</td>
<td>Introduction to Unix/Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 221*</td>
<td>Introduction to Object-Oriented Programming in Java</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 240</td>
<td>Computer Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Excel I</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 128</td>
<td>Microsoft Access</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 137</td>
<td>Web Development Tools</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 155</td>
<td>Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 160</td>
<td>CISCO IT Essentials: Hardware &amp; Software</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 202*</td>
<td>Programming in Visual Basic</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 210*</td>
<td>Programming in C++</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Web Development Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 214</td>
<td>PHP and MySQL</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 170*</td>
<td>Introduction to Unix/Linux</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 221*</td>
<td>Introduction to Object-Oriented Programming in Java</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0-4.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0-4.0</td>
</tr>
</tbody>
</table>

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

**Total Major Units**: 30.0
COMPUTER SCIENCE (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Computer Science for Transfer (AS-T)

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.

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. 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 (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 60 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.

• 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

• Information Specialist
• Programmer Specialist
• Software Engineer
• Systems Manager
• Systems Programmer
• Technical Control Specialist
• Engineer Security Specialist
• Data Mining Analyst

• Technical Product Support Personnel
• Management Information Specialist
• Computer Operations Manager
• Data Communications Manager

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
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/
ASSOCIATE DEGREE PROGRAM

COMPUTER SCIENCE
Associate in Science Degree in Computer Science for Transfer (AS-T) – 28.0 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 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-eight (28) units required for the major

   Required for the Major
   
   CS 221  Introduction to Object Oriented Programming in Java  3.0
   CS 231  Introduction to Data Structures  3.0
   CS 281  Assembly Language and Machine Organization  3.0
   MATH 192  Analytic Geometry and Calculus I  4.0
   MATH 194  Analytic Geometry and Calculus II  4.0
   MATH 240  Discrete Mathematics  3.0
   PHYS 200  General Physics I  4.0
   PHYS 202  General Physics II  4.0

   Total Major Units 28.0
   CSU-GE or IGETC Pattern 37.0-39.0

   Electives (as needed to reach 60 CSU transferable units)  

   Total Maximum Units: 60.0
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

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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Transfer Resources:
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www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.sccu.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/
# 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)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 108</td>
<td>Public Safety Report Writing (Formerly AJ 120)</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 100</td>
<td>Introduction to Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 104</td>
<td>Concepts of Probation and Parole</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 206</td>
<td>Correctional Interviewing and Counseling (Formerly CSI 106)</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 208</td>
<td>Control and Supervision of Inmates (Formerly CSI 108)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 100</td>
<td>Introduction to Administration of Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 102</td>
<td>Concepts of Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 110</td>
<td>Law Enforcement Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 141</td>
<td>Arrest and Firearms</td>
<td>3.5</td>
</tr>
<tr>
<td>AJ 222</td>
<td>Criminal Investigation (Formerly AJ 122)</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 223</td>
<td>Juvenile Control (Formerly AJ 123)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 108</td>
<td>Public Safety Report Writing (Formerly AJ 120)</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 100</td>
<td>Introduction to Corrections</td>
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</tr>
<tr>
<td>CSI 104</td>
<td>Concepts of Probation and Parole</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 206</td>
<td>Correctional Interviewing and Counseling (Formerly CSI 106)</td>
<td>3.0</td>
</tr>
<tr>
<td>CSI 208</td>
<td>Control and Supervision of Inmates (Formerly CSI 108)</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 110</td>
<td>Composition and Reading</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 100</td>
<td>Introduction to Administration of Justice</td>
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</tr>
<tr>
<td>AJ 102</td>
<td>Concepts of Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 110</td>
<td>Law Enforcement Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 141</td>
<td>Arrest and Firearms</td>
<td>3.5</td>
</tr>
<tr>
<td>AJ 222</td>
<td>Criminal Investigation (Formerly AJ 122)</td>
<td>3.0</td>
</tr>
<tr>
<td>AJ 223</td>
<td>Juvenile Control (Formerly AJ 123)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Certificate Units** 25.0
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 locomotive 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
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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/
CERTIFICATE PROGRAM

DIESEL FARM MACHINERY AND HEAVY EQUIPMENT

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.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT</td>
<td>110</td>
<td>Engine Technology</td>
</tr>
<tr>
<td>AUT</td>
<td>140</td>
<td>Diesel Engine Maintenance and Repair</td>
</tr>
<tr>
<td>AUT</td>
<td>165</td>
<td>Diesel Preventive Maintenance and Inspection</td>
</tr>
<tr>
<td>AUT</td>
<td>240</td>
<td>Diesel Engine Tune-Up</td>
</tr>
<tr>
<td>AUT</td>
<td>285</td>
<td>Alternative Fuels for Diesel Engines</td>
</tr>
<tr>
<td>WE</td>
<td>201</td>
<td>Employment Readiness</td>
</tr>
</tbody>
</table>

Total Certificate Units 20.0
**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 entrylevel 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 freelance or 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.

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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.

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

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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)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 160</td>
<td>Graphic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 137</td>
<td>Web Development Tools</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 149</td>
<td>Computer Graphics - Photoshop</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 150</td>
<td>Computer Graphics - Illustrator</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 155</td>
<td>Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 180</td>
<td>Advanced Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 260</td>
<td>Advertising/Graphic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Web Development Programming</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 122</td>
<td>Business Plan Development</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS 144</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Graphic Design</td>
<td>3.0</td>
</tr>
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<td>Web Development Tools</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 149</td>
<td>Computer Graphics - Photoshop</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 150</td>
<td>Computer Graphics - Illustrator</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 155</td>
<td>Flash</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 180</td>
<td>Advanced Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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

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<td>3.0</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Web Development Programming</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Certificate Units**  
22.0-23.0
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 60 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.assistance.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.sccue.org – 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/
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 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEV 100</td>
<td>Principles &amp; Practices of Teaching Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 101</td>
<td>Health, Safety and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 103</td>
<td>Children, Family and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV/PSY 104</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 105</td>
<td>Introduction to Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 106</td>
<td>Observation and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 107</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>CDEV 200</td>
<td>Practicum-Field Experience</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Major Units: 25.0

CSU-GE or IGETC Pattern: 37.0-39.0

Electives (as needed to reach 60 CSU transferable units)

Total Maximum Units: 60.0
ECONOMICS (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Arts Degree in Economics for Transfer (AA-T)

DESCRIPTION
Economics is the study of how individuals and societies choose to use limited resources for production of goods and services and how they distribute them for current and future consumption. Economics is divided into two major areas: macroeconomics and microeconomics. Macroeconomics studies decision-making at the national level. Macroeconomics topics include gross domestic product, unemployment, inflation, and money and banking. Microeconomics studies decision-making at the individual household, business firm, and industry levels. Microeconomics topics include supply and demand, theories of the firm and consumer behaviors.

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 current economic models and use economic reasoning skills to evaluate real world problems.

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 60 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.

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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.

- Investment banker
- Financial Analyst
- Insurance Broker
- Consultant
- Economic Analyst
- Litigation Analysis
- Forensic Economics
- Statistician

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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ECONOMICS (For Transfer)

ASSOCIATE DEGREE PROGRAM

ECONOMICS
Associate in Arts Degree in Economics for Transfer (AA-T) – 20.0-22.0 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 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 to twenty-two (20-22) units required for the major.

Required for the Major (14.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 101</td>
<td>Introduction to Micro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Introduction to Macro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 170</td>
<td>Introductory Calculus with Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 192</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

List A: Select one course (3.0-4.0 units)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting (4.0)</td>
<td></td>
</tr>
<tr>
<td>BUS 220</td>
<td>Principles of Managerial Accounting (4.0)</td>
<td></td>
</tr>
<tr>
<td>BUS 260</td>
<td>Business Communications (3.0)</td>
<td></td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems (3.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 122</td>
<td>Finite Mathematics (3.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 194</td>
<td>Analytic Geometry and Calculus I</td>
<td></td>
</tr>
</tbody>
</table>

List B: Select two courses (3.0-4.0 units)

Any list A course not already used.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 210</td>
<td>Multivariable Calculus (4.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 230</td>
<td>Introduction to Linear Algebra with Applications (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Total Major Units: 20.0-22.0

CSU GE-B or IGETC Pattern: 37.0-39.0

Electives (as needed to reach 60 CSU transferable units): ___

Total Maximum Units: 60.0
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.

TRANSFER PREPARATION
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www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiccu.edu - California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

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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).**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLDC 101</td>
<td>Safety Standards (Cal/OSHA) 30-Hour Card</td>
<td>3.0</td>
</tr>
<tr>
<td>ELTR 120</td>
<td>Electronic Devices</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTR 140</td>
<td>Electronic Circuits &amp; Semiconductor</td>
<td>4.0</td>
</tr>
<tr>
<td>EWIR 110</td>
<td>Electrical Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>EWIR 115</td>
<td>Electrical Wiring and Protection</td>
<td>4.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total Major Units** 20.0

### 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).**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Electronic Devices</td>
<td>4.0</td>
</tr>
<tr>
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<td>Electronic Circuits &amp; Semiconductor</td>
<td>4.0</td>
</tr>
<tr>
<td>EWIR 110</td>
<td>Electrical Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>EWIR 115</td>
<td>Electrical Wiring and Protection</td>
<td>4.0</td>
</tr>
<tr>
<td>WE 201</td>
<td>Employment Readiness</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**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 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWIR 125</td>
<td>Electrical Feeder Services and Circuits</td>
<td>4.0</td>
</tr>
<tr>
<td>EWIR 135</td>
<td>Electrical Equipment &amp; Special Conditions</td>
<td>4.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Major Units: 20.0
Electrical Technology: Electrical Wiring Specialization Units: 9.0
Total Certificate Units: 29.0

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTR 220</td>
<td>Digital Instrumentation Measurements</td>
<td>3.0</td>
</tr>
<tr>
<td>ELTR 240</td>
<td>Digital Logic Circuits</td>
<td>3.0</td>
</tr>
<tr>
<td>WE 220</td>
<td>Internship</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Major Units: 20.0
Electrical Technology: Electronics Specialization Units: 7.0
Total Certificate Units: 27.0
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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, guyin 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 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
- Systems Protection Technician 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

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## 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)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLDC 101</td>
<td>Safety Standards (Cal/OSHA) 30-Hour Card</td>
<td>3.0</td>
</tr>
<tr>
<td>ELTT 101</td>
<td>Electrical Trades I</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTT 102</td>
<td>Electrical Trades II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTT 103</td>
<td>Electrical Trades III</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTT 104</td>
<td>Electrical Trades IV</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Major Units** 19.0

## 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)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTT 101</td>
<td>Electrical Trades I</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTT 102</td>
<td>Electrical Trades II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTT 103</td>
<td>Electrical Trades III</td>
<td>4.0</td>
</tr>
<tr>
<td>ELTT 104</td>
<td>Electrical Trades IV</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**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 Degree 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 60 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.Ass ociation.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSU Mentor.edu – CSU System Information
www.Universityofcalifornia.edu/admissions/index.html - UC System Information
www.AICCU.edu – California Independent Colleges and Universities, Association of
http://wieche.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/

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

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/
# 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 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)

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

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 201</td>
<td>3.0</td>
<td>Advanced Composition</td>
<td></td>
</tr>
<tr>
<td>READ 111</td>
<td>3.0</td>
<td>Reading IV: Analytical and Critical Reading</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 102</td>
<td>3.0</td>
<td>History of Art II</td>
<td></td>
</tr>
<tr>
<td>MUS 102</td>
<td>3.0</td>
<td>Introduction to Music Literature and Listening</td>
<td>3.0</td>
</tr>
<tr>
<td>THEA 100</td>
<td>3.0</td>
<td>Introduction to Theatre</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Title</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 102</td>
<td>3.0</td>
<td>Health Education</td>
<td></td>
</tr>
<tr>
<td>MATH 112</td>
<td>3.0</td>
<td>Geometry in Elementary Mathematics</td>
<td></td>
</tr>
<tr>
<td>MATH 114</td>
<td>1.0</td>
<td>Children's Mathematical Thinking</td>
<td></td>
</tr>
<tr>
<td>MUS 100</td>
<td>3.0</td>
<td>Introduction to Music</td>
<td></td>
</tr>
<tr>
<td>PE 211</td>
<td>3.0</td>
<td>Physical Education in the Elementary School</td>
<td></td>
</tr>
</tbody>
</table>

Total Major Units: 48.0-60.0

CSU-GE or IGETC Pattern: 37.0-39.0

Electives (as needed to reach 60 CSU transferable units):

Total Maximum Units: 60.0
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
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.

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.AASCE1.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.accce.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

FINANCIAL AID
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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 (EMT-P) and to care for the sick and injured at the scene of an emergency and/or during transport to a healthcare facility.

• Paramedic

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/
## ASSOCIATE DEGREE PROGRAM
### EMERGENCY MEDICAL SERVICES MAJOR - A.S. DEGREE
Thirty-nine and one-half (39.5) 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.

### I. Prerequisites for the major (10.5 units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>Human Anatomy and Physiology for Health Professionals</td>
<td>3.0</td>
</tr>
<tr>
<td>EMT</td>
<td>Emergency Medical Technician I (or state certification)</td>
<td>7.5</td>
</tr>
</tbody>
</table>

### II. Required courses for the major (39.5 units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP</td>
<td>Introduction to Advanced Prehospital Care - Paramedic</td>
<td>9.0</td>
</tr>
<tr>
<td>EMTP</td>
<td>Trauma Emergencies - Paramedic</td>
<td>3.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>Medical Emergencies - Paramedic</td>
<td>6.0</td>
</tr>
<tr>
<td>EMTP</td>
<td>Emergency Medical Services Operations - Paramedic</td>
<td>5.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>EMT- Paramedic Clinical 1</td>
<td>3.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>EMT- Paramedic Field 1</td>
<td>6.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>EMT- Paramedic Field 2</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Total Major Units 39.5

## CERTIFICATE PROGRAM
### EMERGENCY MEDICAL SERVICES CERTIFICATE
Thirty-nine and one-half (39.5) 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.

### I. Prerequisites for the major (10.5 units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>Human Anatomy and Physiology for Health Professionals</td>
<td>3.0</td>
</tr>
<tr>
<td>EMT</td>
<td>Emergency Medical Technician I (or state certification)</td>
<td>7.5</td>
</tr>
</tbody>
</table>

### II. Required courses for the major (39.5 units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP</td>
<td>Introduction to Advanced Prehospital Care - Paramedic</td>
<td>9.0</td>
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<tr>
<td>EMTP</td>
<td>Trauma Emergencies - Paramedic</td>
<td>3.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>Medical Emergencies - Paramedic</td>
<td>6.0</td>
</tr>
<tr>
<td>EMTP</td>
<td>Emergency Medical Services Operations - Paramedic</td>
<td>5.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>EMT- Paramedic Clinical 1</td>
<td>3.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>EMT- Paramedic Field 1</td>
<td>6.5</td>
</tr>
<tr>
<td>EMTP</td>
<td>EMT- Paramedic Field 2</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Total Certificate Units 39.5
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 60 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
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Transfer Resources:
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www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.aiicc.edu – California Independent Colleges and Universities, Association of
http://wich.edu/wue - Western Undergraduate Exchange Programs

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# 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 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:
   - California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
   - Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. **Eighteen (18) units required for the major.**

   **Required for the major (6.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102</td>
<td>Introduction to Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 201</td>
<td>Advanced Composition</td>
<td>3.0</td>
</tr>
</tbody>
</table>

   **List A: Select two courses (6.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 220</td>
<td>Survey of American Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 221</td>
<td>Survey of American Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 222</td>
<td>Survey of World Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 223</td>
<td>Survey of World Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 224</td>
<td>Survey of British Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 225</td>
<td>Survey of British Literature II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

   **List B: Select one course (3.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL/HUM 226</td>
<td>Introduction to Mythology</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 250</td>
<td>Creative Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

   **List C: Select one course (3.0 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 260</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 270</td>
<td>Introduction to Linguistics</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 100</td>
<td>Intro to the Humanities</td>
<td>3.0</td>
</tr>
<tr>
<td>THEA 100</td>
<td>Introduction to Theatre</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Major Units**  18.0

**CSU GE-B or IGETC Pattern**  37.0-39.0

**Electives (as needed to reach 60 CSU transferable units)**

**Total Maximum Units:**  60.0
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.

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

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/
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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 100</td>
<td>Fire Protection Organization</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 101</td>
<td>Fire Prevention Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 102</td>
<td>Fire Protection Equipment &amp; Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 103</td>
<td>Building Construction for the Fire Protection</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 104</td>
<td>Fire Behavior and Combustion</td>
<td>3.0</td>
</tr>
<tr>
<td>FIRE 108</td>
<td>Fire &amp; Emergency Services Safety and Survival</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 108*</td>
<td>Public Safety Report Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>EMT105**</td>
<td>Emergency Medical Technician I</td>
<td>7.5</td>
</tr>
<tr>
<td>FIRE 109*</td>
<td>Hazardous Materials 1st Responder</td>
<td>2.0</td>
</tr>
<tr>
<td>FIRE 220**</td>
<td>Fire Apparatus 1A</td>
<td>2.5</td>
</tr>
<tr>
<td>FIRE 221**</td>
<td>Fire Apparatus 1B</td>
<td>2.5</td>
</tr>
<tr>
<td>FIRE 222**</td>
<td>Fire Investigation 1A</td>
<td>2.5</td>
</tr>
<tr>
<td>FIRE 223**</td>
<td>Fire Investigation 1B</td>
<td>2.5</td>
</tr>
<tr>
<td>FIRE 231**</td>
<td>Incident Command System (ICS 300)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

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

Total Major Units 33.0
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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Fire Protection Organization</td>
<td>3.0</td>
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<td>FIRE 103</td>
<td>Building Construction for the Fire Protection</td>
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<td>FIRE 104</td>
<td>Fire Behavior and Combustion</td>
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</tr>
<tr>
<td>FIRE 108</td>
<td>Fire &amp; Emergency Services Safety and Survival</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Public Safety Report Writing</td>
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</tr>
<tr>
<td>FIRE 222**</td>
<td>Fire Investigation 1A</td>
<td>2.5</td>
</tr>
<tr>
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<td>2.5</td>
</tr>
<tr>
<td>FIRE 231**</td>
<td>Incident Command System (ICS 300)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

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

Total Certificate Units 33.0
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.

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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/
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 (22.5 units)
   FIRE 140 Fire - First Responders 9.5
   FIRE 142 Firefighter Academy 1 10.0
   FIRE 144 Firefighter Academy 2 3.0

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. Acquire the ability to use French for oral understanding, speaking, reading and writing.
2. Acquire knowledge about French culture.

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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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
• Foreign Business Personnel • International Business Personnel

• Airlines Personnel • Travel Industry
• Media Personnel • Foreign Correspondent
• Public Relations • U.S. Immigration/Customs

• U.S. Information Agency • Peace Corps
• Language Teacher • Bilingual/Foreign Secretary

• Research Assistant • Foreign Publications/Textbook Editor

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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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 100</td>
<td>Elementary French I</td>
<td>5.0</td>
</tr>
<tr>
<td>FREN 110</td>
<td>Elementary French II</td>
<td>5.0</td>
</tr>
<tr>
<td>FREN 201</td>
<td>Intermediate French I</td>
<td>5.0</td>
</tr>
<tr>
<td>FREN 211</td>
<td>Intermediate French II</td>
<td>5.0</td>
</tr>
</tbody>
</table>

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
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.

- 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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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
GEOGRAPHY (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Arts Degree in Geography for Transfer (AA-T)

DESCRIPTION
The Associate in Arts in Geography for Transfer Degree will provide fundamental geographic knowledge to students who wish to transfer to a CSU to earn a Baccalaureate Degree in Geography. Geography majors go on to pursue a wide range of career opportunities in fields such as urban planning, market research, land use analysis, transportation, tourism and education, along with potential careers in public and government agencies such as the Bureau of Census, Central Intelligence Agency, Drug Enforcement Agency, United States Geologic Survey, Department of Immigration and Naturalization and the Department of State.

The Associate in Science 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. Acquire and utilize terminology and vocabulary appropriate to geography as a field of study and academic discipline;
2. Establish and exercise the skills necessary to express and interpret spatial relations and patterns via maps and/or other geo-spatial representational media;
3. Identify and demonstrate the major concepts associated with Cultural, Physical, and Regional Geography in written and oral formats;
4. Explain fundamental physical relationships among the atmosphere, hydrosphere, lithosphere and biosphere, within the context of the scientific method;
5. Demonstrate critical thinking skills necessary to utilize a geographic perspective in explaining geo-spatial relationships, distributions, and impacts in scalar terms.

ASSOCIATE DEGREE PROGRAM (For Transfer)
The Associate in Arts for Transfer (AA-1) or the Associate in Science for Transfer (AS-1) 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 60 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.

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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. Some positions however require a four-year degree for which IVC’s program is a good base for transfer.

• Urban planning
• Market research
• Land use analysis
• Transportation
• Tourism and education
• Government agencies such as: Bureau of Census, Central Intelligence Agency, Drug Enforcement Agency, United States Geologic Survey, Department of Immigration and Naturalization, and the Department of State

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/
GEOGRAPHY (For Transfer)

ASSOCIATE DEGREE PROGRAM

GEOGRAPHY
Associate in Arts Degree in Geography 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 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.

Required for the Major (7.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 100</td>
<td>Physical Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 111</td>
<td>Physical Geography Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOG 102</td>
<td>Cultural Geography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

List A: Select two courses (6.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 108</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 140</td>
<td>California Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 130</td>
<td>Climate and Weather</td>
<td>3.0</td>
</tr>
</tbody>
</table>

List B: Select two courses (6.0-7.0 units)

Any List A course not already used

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 102</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 100</td>
<td>General Geology</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Major Units: 19.0-20.0

CSU GE-B or IGETC Pattern: 37.0-39.0

Electives (as needed to reach 60 CSU transferable units)

Total Maximum Units: 60.0
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. Display knowledge of important societies, cultures, people, and events in the history of the world, describing the causes and impacts of key historical events.
2. Identify and describe how and why different people, societies, and cultures have interacted with each other and how those interactions changed and influenced human communities in different times and places.
3. Research, evaluate, analyze, and interpret different types of historical texts and information and effectively present conclusions and results in well-crafted oral and/or written forms.

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 60 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.AAAAT.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSU Mentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.aimcc.org – 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/

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/
# 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 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:
   - California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
   - 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):
   - **Select one from:**
     - **HIST 100** Early World History (3.0)
   - **OR**
     - **HIST 110** Early Western Civilizations (3.0)
   - **AND**
     - **Select one from:**
     - **HIST 101** Modern World History (3.0)
     - **OR**
     - **HIST 111** Modern Western Civilizations (3.0)

   **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)
   - **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)
   - **POL S 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)**

<table>
<thead>
<tr>
<th>Area 2 (3 units):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 102</td>
<td>Cultural Anthropology (3.0)</td>
</tr>
<tr>
<td>ANTH 120</td>
<td>Introduction to Archaeology (3.0)</td>
</tr>
<tr>
<td>ART 100</td>
<td>History of Art I (3.0)</td>
</tr>
<tr>
<td>ART 102</td>
<td>History of Art II (3.0)</td>
</tr>
<tr>
<td>ART 104</td>
<td>History of Modern Art (3.0)</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Introduction to Microeconomics (3.0)</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Introduction to Macroeconomics (3.0)</td>
</tr>
<tr>
<td>GEOG 102</td>
<td>Cultural Geography (3.0)</td>
</tr>
<tr>
<td>HIST 100*</td>
<td>Early World History (3.0)</td>
</tr>
<tr>
<td>HIST 101*</td>
<td>Modern World History (3.0)</td>
</tr>
<tr>
<td>HIST 110*</td>
<td>Early Western Civilizations (3.0)</td>
</tr>
<tr>
<td>HIST 111*</td>
<td>Modern Western Civilizations (3.0)</td>
</tr>
<tr>
<td>HIST/LAS 130*</td>
<td>Early Latin America (3.0)</td>
</tr>
<tr>
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</tr>
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</tr>
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</tr>
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</tr>
<tr>
<td>HIST 222</td>
<td>History of California (3.0)</td>
</tr>
<tr>
<td>HIST/LAS 225*</td>
<td>Mexican American History (3.0)</td>
</tr>
<tr>
<td>HUM 100</td>
<td>Introduction to Humanities (3.0)</td>
</tr>
<tr>
<td>HUM/SPAN 262*</td>
<td>Introduction to Chicano/a Studies (3.0)</td>
</tr>
<tr>
<td>PHIL 100</td>
<td>Introduction to Philosophy I (3.0)</td>
</tr>
<tr>
<td>PHIL 102</td>
<td>Introduction to Philosophy II (3.0)</td>
</tr>
<tr>
<td>POLS 100</td>
<td>Introduction to Political Science (3.0)</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology (3.0)</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology (3.0)</td>
</tr>
</tbody>
</table>

*If not used from List A or List B Area 1

| Total Major Units            | 18.0-20.0 |
| CSU-GE or IGETC Pattern      | 37.0-39.0 |
| Electives (as needed to reach 60 CSU transferable units) | |
| Total Maximum Units:         | 60.0     |
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 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:
www.ASIS1.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.aiucc.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

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


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/
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

   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
      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

   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

   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 Creative 3.0
      ENGL 250 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/

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:
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www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiccu.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

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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.

<table>
<thead>
<tr>
<th>AREA 1. ENGLISH COMMUNICATION</th>
<th>Minimum Units Required Per Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSU – Three Courses Required:</td>
<td></td>
</tr>
<tr>
<td>UC – Two Courses Required:</td>
<td></td>
</tr>
<tr>
<td>NAU – Three Courses Required:</td>
<td></td>
</tr>
<tr>
<td>1A: English Composition (3 semester/4.5 Quarter Units Minimum)</td>
<td>3</td>
</tr>
<tr>
<td>1B: Critical Thinking–English Composition (3 semester/4.5 Quarter Units Minimum)</td>
<td>3</td>
</tr>
<tr>
<td>1C: Oral Communication (3 semester/4.5 Quarter Units Minimum)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 2. MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Course: 3 Semester/4.5 Quarter Units Minimum</td>
</tr>
<tr>
<td>2A: Mathematical Concepts and Quantitative Reasoning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 3. ARTS AND HUMANITIES – Nine (9) semester or 12/15 quarter units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three (3) courses, with at least one course from the Arts and one Course from the Humanities. The third course from either area.</td>
</tr>
<tr>
<td>3A: Arts; 3B: Humanities+; and, 3A: Arts or 3B: Humanities+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 4. SOCIAL AND BEHAVIORAL SCIENCES – Nine (9) semester or 12/15 quarter units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three (3) courses from at least two (2) academic areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 5. PHYSICAL AND BIOLOGICAL SCIENCES – Minimum – 7/9 semester or 9/12 quarter units</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Physical Science course and One Biological Science course with at least one lab course from either area to be included.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA 6A: Language Other Than English (LOTE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>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:</td>
</tr>
<tr>
<td>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 &quot;C&quot; or better in each course. The two years must be in the same language.</td>
</tr>
<tr>
<td>2) Satisfactory completion of a course (or courses) at a college or university with a grade of &quot;C&quot; or better in each course.</td>
</tr>
<tr>
<td>IVC courses: American Sign Language 100 or French 100 or Spanish 100 will satisfy this requirement.</td>
</tr>
<tr>
<td>3) Satisfactory completion, with &quot;C&quot; 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.</td>
</tr>
<tr>
<td>4) Satisfactory score on the SAT II: Subject Test in languages other than English.</td>
</tr>
<tr>
<td>5) Satisfactory score, 3 or higher, in the College Board Advanced Placement examination in languages other than English.</td>
</tr>
<tr>
<td>NOTE: The student is advised to see a counselor for assistance determining the completion of the IGETC Language Other Than English AREA 6A requirement.</td>
</tr>
<tr>
<td>5A Physical Science; 5B Biological Science (One course MUST have a laboratory component.)</td>
</tr>
</tbody>
</table>

| Total Certificate Units | 37.0 |
| Total Minimum Units:    | 37.0 |

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 60 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 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.Assists1.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiicc.us – 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/

CAREER OPPORTUNITIES

<table>
<thead>
<tr>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Certified Athletic Trainer</td>
</tr>
<tr>
<td>• Referee</td>
</tr>
<tr>
<td>• Competitor</td>
</tr>
<tr>
<td>• Correctional Officer</td>
</tr>
<tr>
<td>• Teacher</td>
</tr>
<tr>
<td>• Exercise Test Technologist</td>
</tr>
<tr>
<td>• Coach</td>
</tr>
<tr>
<td>• Recreation and Fitness Worker</td>
</tr>
<tr>
<td>• Playground Director</td>
</tr>
<tr>
<td>• Strength Conditioning Specialist</td>
</tr>
</tbody>
</table>

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/
## ASSOCIATE DEGREE PROGRAM

### KINESIOLOGY
Associate in Arts Degree in Kinesiology for Transfer (AA-T) - 21.0-23.0

### REQUIREMENTS FOR THE DEGREE

I. Units/GPA – Must complete 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**

   Required for the Major (11.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 209</td>
<td>Introduction to Kinesiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 204</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 206</td>
<td>Human Physiology</td>
<td>4.0</td>
</tr>
</tbody>
</table>

   Movement-Based Courses: Select one course from at least three areas for a minimum of three units:

   **Area 1: Aquatics**
   - PE 121: Beginning to Intermediate Swimming (1.0)
   - PE 142: Advanced Swimming (1.0)

   **Area 2: Fitness**
   - PE 104: Weight Training (1.0)
   - PE 106: Walking/Jogging Fitness (1.0)
   - PE 111: Aerobics - Step (1.0)

   **Area 3: 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)

   **Area 4: Team Sports**
   - PE 112: Basketball Co-Ed (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: Basketball - Women (1.0)
   - PE 170*: Bowling (1.0)
   - PE 171*: Intermediate Bowling (1.0)
   - PE 172*: Advanced Bowling (1.0)

   **List A:** Select two courses (7.0-9.0 units)
   - BIOL 100: Principles Of Biological Science (4.0)
   - CHEM 100: Introduction To Chemistry (4.0)
   - OR CHEM 200: General Inorganic Chemistry I (5.0)
   - HE 104: First Aid and CPR (3.0)
   - MATH 119: Elementary Statistics (4.0)
   - PHYS 200: 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-B or IGETC Pattern

37.0-39.0

### Electives (as needed to reach 60 CSU transferable units)

---

### Total Maximum Units

60.0
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 60 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.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aicu.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

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
• Actuary
• Appraiser
• Assessor
• Biology/Agriculture
• Budget Analyst
• Business/Economics
• Casualty Rating
• Chemistry
• Controller
• Education

• Engineer
• Engineering Analyst
• Finance Director
• Financial Analyst
• Industry
• Investment Analyst
• Loan Officer
• Marketing/Advertising
• Mathematician
• Mathematics
• Numerical Analyst

• Operations Analyst
• Opinion Polling
• Physical Science
• Public Health
• Sociology
• Statistician
• Systems Analyst
• Tax Collector
• Teacher
• Technical Writer

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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www.imperial.edu/students/financial-aid-and-scholarships/
MATHEMATICS (For Transfer)

ASSOCIATE DEGREE PROGRAM

MATHEMATICS
Associate in Science Degree in Mathematics for Transfer (AS-1) – 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 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 (12.0 units)
   MATH 192 Analytic Geometry and Calculus I 4.0
   MATH 194 Analytic Geometry and Calculus II 4.0
   MATH 210 Multivariable Calculus 4.0

   List A: Select one course (3.0 units)
   MATH 220 Elementary Differential Equations (3.0)
   MATH 230 Introduction to Linear Algebra with Applications (3.0)

   List B: Select one course (3.0-4.0 units)
   Any List A course not already used.
   CIS 210 Programming in C++ (3.0)
   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 240 Discrete Mathematics (3.0)
   PHYS 200 General Physics I (4.0)

Total Major Units: 18.0-19.0
CSU GE-B or IGETC Pattern: 37.0-39.0
Electives (as needed to reach 60 CSU transferable units): ___________

Total Maximum Units: 60.0
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

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/
# 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHP 100</td>
<td>Medical Terminology</td>
<td>3.0</td>
</tr>
<tr>
<td>MA 070</td>
<td>Administrative Medical Assistant I</td>
<td>4.5</td>
</tr>
<tr>
<td>MA 072</td>
<td>Administrative Medical Assistant II</td>
<td>4.5</td>
</tr>
<tr>
<td>MA 074</td>
<td>Clinical Externship I</td>
<td>2.0</td>
</tr>
<tr>
<td>MA 080</td>
<td>Specimen Collection &amp; Lab Procedures</td>
<td>3.5</td>
</tr>
<tr>
<td>MA 082</td>
<td>Exam Room Procedures</td>
<td>3.5</td>
</tr>
<tr>
<td>MA 084</td>
<td>Pharmacology &amp; Administration</td>
<td>3.5</td>
</tr>
<tr>
<td>MA 086</td>
<td>Clinical Externship II</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Certificate Units**

26.5

www.imperial.edu Imperial Valley College Catalog 2018-2019
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 emphasizes 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)
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 60 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
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

Gainful Employment: Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on 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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ASSOCIATE DEGREE PROGRAM

MUSIC
Associate in Arts Degree in Music for Transfer (AA-1) – 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 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 110</td>
<td>Beginning musicianship I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Beginning musicianship II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 120</td>
<td>Beginning Harmony I</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 122</td>
<td>Beginning Harmony II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 210</td>
<td>Intermediate musicianship I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 212</td>
<td>Intermediate musicianship II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 220</td>
<td>Intermediate Harmony I</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 222</td>
<td>Intermediate Harmony II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 163</td>
<td>Applied Music I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 164</td>
<td>Applied Music II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 165</td>
<td>Applied Music III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 166</td>
<td>Applied Music IV</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Ensemble (4.0 units) 4.0

Students must sign up for one performance ensemble from the following list for each semester enrolled.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 156</td>
<td>Beginning College Chorus (1.0)</td>
</tr>
<tr>
<td>MUS 157</td>
<td>Intermediate College Chorus (1.0)</td>
</tr>
<tr>
<td>MUS 171</td>
<td>Chamber Orchestra (1.0)</td>
</tr>
<tr>
<td>MUS 172</td>
<td>College-Community Band (1.0)</td>
</tr>
<tr>
<td>MUS 175</td>
<td>Instrumental Ensemble (1.0)</td>
</tr>
<tr>
<td>MUS 177</td>
<td>Stage Band (1.0)</td>
</tr>
<tr>
<td>MUS 178</td>
<td>Symphony Orchestra (1.0)</td>
</tr>
</tbody>
</table>

Total Major Units 24.0
CSU GE-B or IGETC Pattern 37.0-39.0
Electives (as needed to reach 60 CSU transferable units)

Total Maximum Units: 60.0
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.

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

FINANCIAL AID
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www.imperial.edu/students/financial-aid-and-scholarships/
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 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
   - BIOL 220 General Microbiology 5.0
   - SOC 101 Introduction to Sociology 3.0
   OR
   - ANTH 102 Cultural Anthropology 3.0
   - COMM 100 Oral Communication 3.0
   - NURS 100 Medication Mathematics 1.0
   - PSY 204 Developmental Psychology: Conception to Death 3.0
   - Math Competency: Transfer level placement or satisfactory completion of MATH 091 or higher level course with a grade of "C" or better.
   - Reading and Written Competency: Transfer level placement or ENGL 110 or an course fulfilling the A1 requirement with a grade of "C" or better.

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 BLS/CPR Certification: Must be current.

Additional Program Requirements

1. Degree Requirements
   - 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 7.0
   - NURS 109 Pharmacology 1.0
   Semester 2:
   - NURS 127 Medical Surgical Nursing I 4.0
   - NURS 128 Nursing Care of the Childbearing Family 4.0
   Semester 3:
   - NURS 218 Nursing Care of the Childbearing Family 3.5
   - NURS 219 Psychiatric and Mental Health Nursing * 3.0
   - NURS 223 Medical Surgical and Geriatric Nursing 5.0
   *NURS 219 may be taken summer before or after 3rd semester
   Semester 4:
   - NURS 227 Medical-Surgical Nursing III/Preceptorship 8.0

   NOTE: Clinical experience may include a rotation outside of county.

Total Nursing Units 37.0
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 200 Human Anatomy and Physiology I 4.0
   and
   • BIOL 202 Human Anatomy and Physiology II 4.0
   OR
   • BIOL 204 Human Anatomy 4.0
   and
   • BIOL 206 Human Physiology 4.0
   • BIOL 220 General Microbiology 5.0
   • ENGL 110 Composition and Reading 4.0
   • PSY 101 Introduction to Psychology 3.0
   • PSY 204 Developmental Psychology: Conception to Death 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 BLS/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
   • Math Competency: Transfer level placement or satisfactory completion of MATH 091 or higher level course with a grade of "C" or better.
   • Reading and Written Competency: Transfer level placement or ENGL 110 or an course fulfilling the A1 requirement with a grade of "C" or better.

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 Patient Care I 5.0
   VN 112 Introduction to Patient Care II 5.0
   VN 114 Pharmacology I 1.5
   Semester 2:
   VN 120 The Maternity Cycle 5.5
   VN 122 Common Health Problems I 5.5
   VN 124 Pharmacology II 2.0
   Semester 3:
   VN 116 Patient Care Management & Critical Thinking 2.5
   VN 130 Common Health Problems II 5.5
   VN 132 Common Health Problems III 5.5

Total Vocational Nursing Units 38.0
CERTIFICATE OF ACHIEVEMENT PROGRAM

NURSING – VOCATIONAL NURSING (V.N.) CERTIFICATE

Admission Requirements
1. Prerequisites for the major
   - AHP 100 Medical Terminology 3.0
   - BIOL 200 Human Anatomy and Physiology I 4.0
   - and
   - BIOL 202 Human Anatomy and Physiology II 4.0
   - OR
   - BIOL 204 Human Anatomy 4.0
   - and
   - BIOL 206 Human Physiology 4.0
   - BIOL 220 General Microbiology 5.0
   - ENGL 110 Composition and Reading 4.0
   - PSY 101 Introduction to Psychology 3.0
   - PSY 204 Developmental Psychology: Conception to Death 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 BLS/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 Patient Care I 5.0
   - VN 112 Introduction to Patient Care II 5.0
   - VN 114 Pharmacology I 1.5
   **Semester 2:**
   - VN 120 The Maternity Cycle 5.5
   - VN 122 Common Health Problems I 5.5
   - VN 124 Pharmacology II 2.0
   **Semester 3:**
   - VN 116 Patient Care Management & Critical Thinking 2.5
   - VN 130 Common Health Problems II 5.5
   - VN 132 Common Health Problems III 5.5

Total Vocational Nursing Units 38.0
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
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
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.

Transfer Resources:
www.ASSIST.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.aiccu.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue – Western Undergraduate Exchange Programs

FINANCIAL AID
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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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHP 100</td>
<td>Medical Terminology</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 108</td>
<td>Introduction to Pharmacy Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>PHT 120</td>
<td>Pharmacy Technician Body Systems I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 125</td>
<td>Pharmacy Technician Body Systems II</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 130</td>
<td>Calculation and Pharmacology for Pharmacy Technician</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 140</td>
<td>Pharmacy Technician Operations</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Total Major Units 18.5

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHP 100</td>
<td>Medical Terminology</td>
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<td>2.0</td>
</tr>
<tr>
<td>PHT 120</td>
<td>Pharmacy Technician Body Systems I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 125</td>
<td>Pharmacy Technician Body Systems II</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 130</td>
<td>Calculation &amp; Pharmacology for Pharmacy Technician</td>
<td>3.0</td>
</tr>
<tr>
<td>PHT 140</td>
<td>Pharmacy Technician Operations</td>
<td>4.5</td>
</tr>
</tbody>
</table>

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 shortterm 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
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www.universityofcalifornia.edu/admissions/index.html – UC System Information
www.acicu.edu – California Independent Colleges and Universities, Association of
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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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 100</td>
<td>Principles of Biological Science</td>
<td>4.0</td>
</tr>
<tr>
<td>HE 104</td>
<td>First Aid and CPR</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 209</td>
<td>Introduction to Physical Education</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 219</td>
<td>Introduction to Athletic Training</td>
<td>3.0</td>
</tr>
</tbody>
</table>

II. Activity Requirement

Select a minimum of one course from three (3) areas for a total of four (4.0) units:

<table>
<thead>
<tr>
<th>Area</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptive</td>
<td>PE 130 Adapted Physical Exercises</td>
<td>1.0</td>
</tr>
<tr>
<td>Aquatics</td>
<td>PE 131 Adapted Sports</td>
<td>1.0</td>
</tr>
<tr>
<td>Fitness</td>
<td>PE 102 Physical Fitness</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 103 Physical Fitness – Women</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 104 Weight Training</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 106 Walking/Jogging Fitness</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 111 Aerobics – Step</td>
<td>1.0</td>
</tr>
<tr>
<td>Individual/Team Sports</td>
<td>PE 112 Basketball – Co-Ed</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 120 Softball</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 126 Tennis</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 127 Tennis – Advanced</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 128 Co-Ed Volleyball I</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 129 Co-Ed Volleyball II</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 170 Bowling – Beginning</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 171 Bowling – Intermediate</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PE 172 Bowling – Advanced</td>
<td>1.0</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>ATHL 120 Intercollegiate Cross Country and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 121 Out-of-Season Intercollegiate Cross Country and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 122 Intercollegiate Volleyball and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 123 Out-of-Season Intercollegiate Volleyball and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 124 Intercollegiate Men’s Soccer and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 125 Out-of-Season Intercollegiate Men’s Soccer and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 126 Intercollegiate Women’s Soccer and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 127 Out-of-Season Intercollegiate Women’s Soccer and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 128 Intercollegiate Men’s Basketball and PE 1</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 129 Intercollegiate Men’s Basketball and PE 2</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 130 Intercollegiate Women’s Basketball and PE 1</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 131 Intercollegiate Women’s Basketball and PE 2</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 132 Out-of-Season Intercollegiate Baseball and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 133 Intercollegiate Baseball and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 134 Out-of-Season Intercollegiate Softball and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 135 Intercollegiate Softball and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 136 Out-of-Season Intercollegiate Men’s Tennis and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 137 Intercollegiate Men’s Tennis and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 138 Out-of-Season Intercollegiate Women’s Tennis and PE</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ATHL 139 Intercollegiate Women’s Tennis and PE</td>
<td>3.0</td>
</tr>
</tbody>
</table>

III. Theory/Practicum Requirement – Select one course (2.0-3.0 units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 200</td>
<td>Theory of Baseball</td>
<td>2.0</td>
</tr>
<tr>
<td>PE 201</td>
<td>Theory of Basketball</td>
<td>2.0</td>
</tr>
<tr>
<td>PE 202</td>
<td>Theory of Softball</td>
<td>2.0</td>
</tr>
<tr>
<td>PE 203</td>
<td>Theory of Volleyball</td>
<td>2.0</td>
</tr>
<tr>
<td>PE 207</td>
<td>PE in the Elementary School</td>
<td>3.0</td>
</tr>
<tr>
<td>PE 221</td>
<td>Psychology of Coaching</td>
<td>2.0</td>
</tr>
<tr>
<td>PE 222</td>
<td>Sports Officiating</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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
- Geographer
- Telescope Operator
- Science Educator
- Meteorologist
- Astronaut
- Chemist
- Technical Writer
- Space Engineer
- Geologist
- Research Physicist
- Space Scientist
- Agriculturist
- Applied Physicist
- Scientific Computer Programmer

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/](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.acicc.edu](http://www.acicc.edu) – California Independent Colleges and Universities, Association of
- [http://wiche.edu/wue](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/)
## 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 200</td>
<td>General Inorganic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Inorganic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 192</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
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<tr>
<td>MATH 194</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
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<tr>
<td>PHYS 200</td>
<td>Principles of Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Principles of Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 204</td>
<td>Principles of Physics III</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### II. Five (5.0) units selected from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG/ENVS 110</td>
<td>Environmental Science (3.0)</td>
<td>3.0</td>
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<tr>
<td>ASTR 100</td>
<td>Principles of Astronomy (3.0)</td>
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<td>CHEM 204</td>
<td>Organic Chemistry I (5.0)</td>
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<td>CHEM 206</td>
<td>Organic Chemistry II (5.0)</td>
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<td>GEOG 100</td>
<td>Physical Geography (3.0)</td>
<td>3.0</td>
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<tr>
<td>GEOL 100</td>
<td>General Geology (4.0)</td>
<td>4.0</td>
</tr>
<tr>
<td>GEOL 110</td>
<td>Earth and Space Science (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 130</td>
<td>Climate and Weather (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics (4.0)</td>
<td>4.0</td>
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<tr>
<td>MATH 210</td>
<td>Multivariable Calculus (4.0)</td>
<td>4.0</td>
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<tr>
<td>MATH 220</td>
<td>Elem Differential Equations (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 230</td>
<td>Intro to Linear Algebra w/App (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSC 110</td>
<td>Physical Science (3.0)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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) 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 60 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
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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 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.**

   Required for the Major (3.0 units)
   - POLS 102 American Government & Politics 3.0

   **List A: Select three courses (9.0-10.0 units)**
   - POLS 100 Introduction to Political Science (3.0)
   - POLS 104 Comparative Politics (3.0)
   - POLS 106 Introduction to International Relations (3.0)
   - MATH 119 Elementary Statistics (4.0)

   **List B: Select two courses (6.0 units)**
   - ANTH 102 Cultural Anthropology (3.0)
   - ECON 101 Introduction to Micro Economics (3.0)
   - ECON 102 Intro to Macro Economics (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 Civilization (3.0)
   - HIST 111 Modern Western Civilization (3.0)

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<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>POLS 102</td>
<td>3.0</td>
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<tr>
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<td>POLS 104</td>
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<tr>
<td>HIST 110</td>
<td>3.0</td>
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<tr>
<td>HIST 111</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Major Units** 18.0-19.0

**CSU-GE or IGETC Pattern** 37.0-39.0

**Electives (as needed to reach 60 CSU transferable units)**

**Total Maximum Units:** 60.0
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.

TRANSFER PREPARATION
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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/
### 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. Sixteen (16.0) 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)
   - MATH 230* Introduction to Linear Algebra w/Applications (3.0)

III. Three (3.0) units selected from:
   - ENGR 212* Dynamics (3.0)
   - ENGR 240* Electronic Circuit Analysis (3.0)

IV. Five (5.0) units selected from:
   - CHEM 202 General Inorganic Chemistry II (5.0)
   - CHEM 204 Organic Chemistry I (5.0)
   - CHEM 206 Organic Chemistry II (5.0)
   - CIS 210 Programming in C++ (3.0)
   - CS 221 Introduction to Object-Oriented Programming in Java (3.0)
   - ENGR 212* Dynamics (3.0)
   - ENGR 240* Electronic Circuit Analysis (3.0)
   - MATH 119 Elementary Statistics (4.0)
   - MATH 220* Elementary Differential Equations (3.0)
   - MATH 230* Introduction to Linear Algebra w/Applications (3.0)
   - PHYS 202 Principles of Physics II (4.0)
   - PHYS 204 Principles of Physics III (4.0)

* If not used for required courses under sections II. or III. above.

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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 an 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 60 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.

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www.imperial.edu/student/financial-aid-and-scholarships/

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
- Public Health Statistician Trainee
- Community College Instructor
- Marriage and Family Therapist
- Marriage, Family, Child Counselor
- Community College Counselor
- Test Validation and Development Specialist
- Personnel Analyst/Manager
- Student Affairs Officer
- Probation Officer
- Research Director
- Social Research Trainee
- Drug Abuse Counselor
- Training Officer
- Personnel Analyst
- Psychometrist
- Administrator
- Therapist
- Public Health Statistician
- Marriage and Family Therapist
- Community College Counselor

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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 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

   OR
   MATH 119 Elementary Statistics (4.0)
   PSY 101 Introduction to Psychology 3.0
   PSY 212 Research Methods in Psychology 3.0

   List A: Select one course (3-4 units): 3.0-4.0
   BIOL 100 Principles of Biological Science (4.0)
   BIOL 180 General Biology: Molecules, Cells and Genetics (4.0)
   PSY 200 Biological Psychology (3.0)

   List B: Select one course (3 units): 3.0-4.0
   Any List A course not already used.
   PSY 202 Learning (3.0)

   List C: Select one (3 units): 3.0
   Any List A or B course not already used.
   PSY 204 Developmental Psych: Conception to Death (3.0)
   PSY/SOC 206 Social Psychology (3.0)
   PSY 208 Abnormal Psychology (3.0)

Total Major Units 19.0-20.0
CSU-GE or IGETC Pattern 37.0-39.0
Electives (as needed to reach 60 CSU transferable units) __________
Total Maximum Units: 60.0
PUBLIC HEALTH SCIENCE (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Public Health Science for Transfer (AS-T)

DESCRIPTION
Public health is defined as the science of protecting the safety and improving the health of communities through education, policy making and research for disease and injury prevention. 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 Public Health Science.

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 be able to identify, assess, utilize and articulate credible information resources on personal and public health current issues, such as the Internet, social media, media outlets, and libraries.
2. Students will be able to effectively communicate strategies or tactics to improve health inequalities, such as advocacy, community organizing, and/or policy change.
3. Students will obtain a critical understanding and apply knowledge of Personal and Public Health in real life settings from the sub-disciplines of Human Anatomy and Physiology, Statistics, Chemistry, and Psychology.

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 60 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 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.

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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.

- Biostatistician
- Epidemiologist
- Medical Assistant
- Public Health Nurse
- Medical Microbiologist
- Environmental Health Officer
- Public Health Inspector
- Bioethicist
- Community Health Worker
- Environmental Scientist
- Health Educator

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/
ASSOCIATE DEGREE PROGRAM

PUBLIC HEALTH SCIENCE
Associate in Science Degree in Public Health Science for Transfer (AS-T) – 32.0-35.0 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 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. Thirty-two to Thirty-five (32-35) units required for the major.

Required for the Major (29.0-30.0 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 100</td>
<td>Principles of Biological Science</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 200</td>
<td>Human Anatomy &amp; Physiology I (4.0)</td>
<td>8.0</td>
</tr>
<tr>
<td>AND</td>
<td>Human Anatomy &amp; Physiology II (4.0)</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>Human Anatomy (4.0)</td>
<td>8.0</td>
</tr>
<tr>
<td>AND</td>
<td>Human Physiology (4.0)</td>
<td></td>
</tr>
<tr>
<td>CHEM 100</td>
<td>Introduction to Chemistry (4.0)</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>General Inorganic Chemistry I (5.0)</td>
<td></td>
</tr>
<tr>
<td>HE 102</td>
<td>Health Education</td>
<td>3.0</td>
</tr>
<tr>
<td>HE 103</td>
<td>Introduction to Public Health</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics</td>
<td>4.0</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

List A: Select one course (3.0-5.0) units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 102</td>
<td>Cultural Anthropology (3.0)</td>
<td></td>
</tr>
<tr>
<td>BIOL 220</td>
<td>Microbiology (5.0)</td>
<td></td>
</tr>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting (4.0)</td>
<td></td>
</tr>
<tr>
<td>ECON 101</td>
<td>Introduction to Micro Economics (3.0)</td>
<td></td>
</tr>
<tr>
<td>ECON 102</td>
<td>Introduction to Macro Economics (3.0)</td>
<td></td>
</tr>
<tr>
<td>PSY 146</td>
<td>Psychology of Human Sexuality (3.0)</td>
<td></td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Total Major Units: 32.0-35.0

CSU GE-B or IGETC Pattern: 37.0-39.0

Electives (as needed to reach 60 CSU transferable units)

Total Maximum Units: 60.0
RETAIL MANAGEMENT

DEGREES, CERTIFICATES AND AWARDS
Certificate of Achievement

DESCRIPTION
The Retail Management Certificate Program will equip students with valuable skills to start or advance their career in the retail and food chain industry. Students will gain a greater understanding of the retail industry including careers in: management and operations, sales and marketing, customer service, human resources, accounting, logistics and supply chain management and merchandising.

PROGRAM LEARNING OUTCOMES
1. Apply relevant information needed to perform job-related tasks and make retail business decisions including: an ability to set goals, to read and compose technical business documents and to use math skills to calculate and analyze financial information.
2. Explain, follow and enforce company policies, procedures, and perform job duties in an ethical manner.

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
- Management and Operations
- Sales and Marketing
- Customer Service
- Human Resources
- Logistics and Supply Chain Management
- Merchandising

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/
### RETAIL MANAGEMENT

#### CERTIFICATE OF ACHIEVEMENT

**RETAIL MANAGEMENT**

Twenty-five to Twenty-six (25.0-26.0) units required for the certificate.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 063</td>
<td>Essentials in Workplace Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 120</td>
<td>Retail Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 132</td>
<td>Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 136</td>
<td>Human Relations in Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 144</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Human Resources Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 180</td>
<td>Microsoft Office Suite for the Workplace</td>
<td>4.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 210</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Certificate Units** 25.0 - 26.0
**Social Science**

**Degrees, Certificates and Awards**

Associate in Arts 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.

**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
- Politian
- Public Relations
- Sociologist

**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 – CSU and UC Articulation Agreements and Majors Search Engine

www.CSUMentor.edu – CSU System Information

www.universityofcalifornia.edu/admissions/index.html – UC System Information

www.accjc.edu – California Independent Colleges and Universities, Association of

http://wiche.edu/wxe - 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/
# 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.

<table>
<thead>
<tr>
<th>American Indian Studies</th>
<th>AIS/ANTH 106</th>
<th>Indians of North America</th>
<th>3.0</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AIS/ANTH 108</td>
<td>Indians of the Southwest</td>
<td>3.0</td>
</tr>
<tr>
<td>Anthropology</td>
<td>ANTH 100</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ANTH 102</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ANTH/ANTH</td>
<td>Indians in North America</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ANTH/ANTH</td>
<td>Indians of the Southwest</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ANTH 120</td>
<td>Introduction to Archaeology</td>
<td>3.0</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON 101</td>
<td>Introduction to Micro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ECON 102</td>
<td>Introduction to Macro Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>Geography</td>
<td>GEOG 100</td>
<td>Physical Geography</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>GEOG 102</td>
<td>Cultural Geography</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>GEOG 108</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>History</td>
<td>HIST 100</td>
<td>Early World History</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 101</td>
<td>Modern World History</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 110</td>
<td>Early Western Civilization</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 111</td>
<td>Modern Western Civilization</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 120</td>
<td>United States History: Prehistory to Reconstruction</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 121</td>
<td>United States History: Reconstruction to Present</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST/LAS 130</td>
<td>Early Latin America</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST/LAS 131</td>
<td>Modern Latin America</td>
<td>3.0</td>
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<tr>
<td></td>
<td>HIST/LAS 132</td>
<td>History of Mexico</td>
<td>3.0</td>
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<tr>
<td></td>
<td>HIST 140</td>
<td>East Asian History</td>
<td>3.0</td>
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<tr>
<td></td>
<td>HIST 150</td>
<td>Survey of African History</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 160</td>
<td>Middle Eastern from 600</td>
<td>3.0</td>
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<tr>
<td></td>
<td>HIST 220</td>
<td>Woman in American History</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST 222</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>HIST/LAS 225</td>
<td>Mexican American History</td>
<td>3.0</td>
</tr>
<tr>
<td>Latino/Latina Studies</td>
<td>LAS/HIST 130</td>
<td>Early Latin America</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>LAS/HIST 131</td>
<td>Modern Latin America</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>LAS/HIST 132</td>
<td>History of Mexico</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>LAS/HIST 225</td>
<td>Mexican American History</td>
<td>3.0</td>
</tr>
<tr>
<td>Political Science</td>
<td>POLS 100</td>
<td>Introduction to Political Science</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>POLS 102</td>
<td>American Government and Politics</td>
<td>3.0</td>
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<tr>
<td></td>
<td>POLS 104</td>
<td>Comparative Politics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>POLS 106</td>
<td>Introduction to International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>RELS 100</td>
<td>Religions of the Modern World</td>
<td>3.0</td>
</tr>
<tr>
<td>Sociology</td>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>SOC 102</td>
<td>Contemporary Social Problems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**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 60 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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSIMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiicc.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.

- 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

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### ASSOCIATE DEGREE PROGRAM

**SOCIOMETRY**

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 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**

   **Required for the Major (3.0 units)**
   - SOC 101 Introduction to Sociology 3.0
   - Select two courses (6.0-7.0 units)
     - 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)

   **List A: Select two courses (6.0 units)**
   Any required course not already used.
   - 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)

   **List B: Select one course (3.0 units)**
   Any course not already used above.
   - ANTH 102 Cultural Anthropology (3.0)
   - GEOG 102 Cultural Geography (3.0)
   - PSY 101 Introduction to Psychology (3.0)

**Total Major Units** 18.0-19.0

**CSU GE-B or IGETC Pattern**

37.0-39.0

**Electives (as needed to reach 60 CSU transferable units)**

---

**Total Maximum Units:** 60.0
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 60 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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUmentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html – UC System Information
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.

- 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
- Realtor
- Research Assistant
- Sales Representative
- Social Worker
- Teacher
- Technical Writer
- Trade and Commerce Expert
- Travel Industry
- U.S. Immigration/Customs
- U.S. Information Agent
- International Business Personnel

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/
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 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-Three (18-23) units required for the major

Required for the Major (5-20 units)

* NOTE: Students placing out of required courses must select additional courses in order to reach the minimum units required for the major. Additional units may be selected from List A if not already used or from the Substitution Course list.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 100</td>
<td>Elementary Spanish I</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN 110</td>
<td>Elementary Spanish II</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN 200</td>
<td>Intermediate Spanish I</td>
<td>5.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 220</td>
<td>Spanish for Heritage Speakers I</td>
<td>5.0</td>
</tr>
<tr>
<td>SPAN 210</td>
<td>Intermediate Spanish II</td>
<td>5.0</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 221</td>
<td>Spanish for Heritage Speakers II</td>
<td>5.0</td>
</tr>
</tbody>
</table>

List A: Select one course (3 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 222</td>
<td>Bilingual Oral Spanish (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>SPAN 225</td>
<td>Introduction to Spanish American Literature (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>SPAN/HUM 262</td>
<td>Introduction to Chicano/a Studies (3.0)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Substitution Courses (select as needed to reach 18 units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 102</td>
<td>Cultural Anthropology (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 150</td>
<td>Intercultural Communication (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST/LAS 130</td>
<td>Early Latin America (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST/LAS 131</td>
<td>Modern Latin America (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST/LAS 132</td>
<td>History of Mexico (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST/LAS 225</td>
<td>Mexican American History (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology (3.0)</td>
<td>3.0</td>
</tr>
<tr>
<td>SPAN 223</td>
<td>Spanish Reading and Writing (4.0)</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Major Units 18.0-23.0
CSU GE-B or IGETC Pattern 37.0-39.0
Electives (as needed to reach 60 CSU transferable units) 60.0
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 60 semester units of CSU transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does not 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 designated “high-unit”). 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.

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/
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 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 course (3 units):
   ART 100  History of Art I (3.0)
   ART 104  History of Modern Art (3.0)
   List B: Select three courses (9 units):
   ART 122  Drawing II (3.0)
   ART 124  Painting I (3.0)
   ART 126  Painting II (3.0)
   ART 128  Watercolor Painting (3.0)
   ART 160  Graphic Design (3.0)
   ART 170  Photography – Beginning (3.0)
   ART 220  Drawing III (3.0)
   ART 222  Drawing IV (3.0)
   ART 260  Advertising/Graphic Design (3.0)

Total Major Units 24.0
CSU-GE or IGETC Pattern 37.0-39.0
Electives (as needed to reach 60 CSU transferable units) _____
Total Maximum Units: 60.0
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/

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:
www.ASSIST.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiiccu.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/

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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” of 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” of 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
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
PHIL 100, 102, 104, 106
RELS 100, 104
SPAN 100, 110, 200, 210, 220, 221, 225, 262
THEA 100
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AJ</td>
<td>100, 102, 106, 224</td>
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<tr>
<td>ADS</td>
<td>120, 150</td>
</tr>
<tr>
<td>AIS</td>
<td>106, 108</td>
</tr>
<tr>
<td>AMSL</td>
<td>110</td>
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<tr>
<td>ANTH</td>
<td>102, 106, 108, 120</td>
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<tr>
<td>CDEV</td>
<td>103, 104</td>
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<td>ECON</td>
<td>101, 102</td>
</tr>
<tr>
<td>GEOG</td>
<td>102, 108</td>
</tr>
<tr>
<td>HIST</td>
<td>100, 101, 110, 111, 120, 121, 130, 131, 132, 140, 150, 160, 220, 222, 225</td>
</tr>
<tr>
<td>LAS</td>
<td>130, 131, 132, 225</td>
</tr>
<tr>
<td>POLS</td>
<td>100, 102, 104, 106</td>
</tr>
<tr>
<td>PSY</td>
<td>101, 104, 120, 142, 144, 146, 200, 202, 204, 206, 208, 212</td>
</tr>
<tr>
<td>SW</td>
<td>220</td>
</tr>
<tr>
<td>SOC</td>
<td>101, 102, 110, 150, 206, 224</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>110, 120, 140, 170</td>
</tr>
<tr>
<td>ASTR</td>
<td>100</td>
</tr>
<tr>
<td>BIOL</td>
<td>100, 120, 122, 140, 150, 180, 182, 200, 202, 204, 206, 220</td>
</tr>
<tr>
<td>CHEM</td>
<td>100, 160, 200, 202</td>
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<tr>
<td>CIS</td>
<td>101, 202, 210</td>
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<tr>
<td>CS</td>
<td>221, 231, 281</td>
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<tr>
<td>ENGR</td>
<td>210, 212, 240</td>
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<td>ENVS</td>
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<td>GEOG</td>
<td>100</td>
</tr>
<tr>
<td>GEOL</td>
<td>100, 110</td>
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<tr>
<td>MATH</td>
<td>110, 112, 119, 122, 140, 150, 170, 190,192, 194, 210, 220, 230, 240</td>
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<td>PHSC</td>
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<td>PHYS</td>
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IVC Graduation and Institutional Requirements

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<th>Requirement</th>
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<tr>
<td>CSU-GE Pattern</td>
<td>39.0</td>
</tr>
<tr>
<td>IGETC Pattern</td>
<td>37.0</td>
</tr>
<tr>
<td>Total Emphasis Units</td>
<td>18.0</td>
</tr>
</tbody>
</table>

Electives (as needed to reach 60.0 degree applicable units)

<table>
<thead>
<tr>
<th>Electives</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Maximum Units:** 60.0
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
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.

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.acicu.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

FINANCIAL AID
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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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WT 105</td>
<td>Computational Procedures Operator I</td>
<td>3.0</td>
</tr>
<tr>
<td>WT 110</td>
<td>Water Treat Plant Operator I</td>
<td>4.0</td>
</tr>
<tr>
<td>WT 140</td>
<td>Water Distribution Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>WT 205</td>
<td>Computational Procedures Operator II</td>
<td>3.0</td>
</tr>
<tr>
<td>WT 210</td>
<td>Water Treat Plan Operator II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WT 105</td>
<td>Computational Procedures Operator I</td>
<td>3.0</td>
</tr>
<tr>
<td>WT 110</td>
<td>Water Treat Plant Operator I</td>
<td>4.0</td>
</tr>
<tr>
<td>WT 140</td>
<td>Water Distribution Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>WT 205</td>
<td>Computational Procedures Operator II</td>
<td>3.0</td>
</tr>
<tr>
<td>WT 210</td>
<td>Water Treat Plan Operator II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WT 130</td>
<td>Wastewater Treatment Operator I</td>
<td>4.0</td>
</tr>
<tr>
<td>WT 150</td>
<td>Wastewater Collection Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>WT 230</td>
<td>Wastewater Treatment Operator II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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 curriculum is designed to educate, train, and prepare our students to meet the minimum knowledge and skill standards for entry level welders established by the American Welding Society. The emphasis of our teaching and learning activities is to master the theory, technology, applied science, and practical skills that are the foundation of a rewarding career in Welding Technology. All welding courses are a combination of the many skills, aptitudes, and knowledge identified as necessary competencies for welding personnel. Courses include the core competencies for welding personnel which are; Industrial Safety, Oxy-Fuel Welding and Cutting, Weld Symbols, Shielded Metal Arc Welding (“Stick”) on plate and pipe, Gas Tungsten Arc Welding (“TIG”) on plate and pipe, Plasma Arc Cutting, Air Carbon Arc Cutting, Flux Cored Arc Welding, and Gas Metal Arc Welding (“MIG”).

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, 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.

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
• Assembly Worker
• Auto Body Worker
• Sheet Metal Worker
• Structural and Iron Work Welder
• Welder

Industry fields:
• Aerospace and Manufacturing
• Automotive and Transportation
• Pipe and Vessel Welding
• Fabrication and Maintenance
• Petroleum and Energy
• Shipbuilding and Heavy Industry

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 – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUmentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
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/
# WELDING TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

**WELDING TECHNOLOGY MAJOR – A.S. DEGREE**

Twenty-one (21.0) units required for the major.

All courses for this major must be completed with a minimum grade of “C” or better.

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

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<tr>
<td>WELD 100</td>
<td>Welding Technology</td>
<td>5.0</td>
</tr>
<tr>
<td>WELD 115</td>
<td>Flux Cored Arc Welding on Plate</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 125</td>
<td>Gas Tungsten Arc Welding on Plate</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 135</td>
<td>Shielded Metal Arc Welding on Plate</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD 225</td>
<td>Gas Tungsten Arc Welding on Pipe</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 230</td>
<td>Shielded Metal Arc Welding on Pipe</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Major Units 21.0

## 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.

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

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<td>WELD 230</td>
<td>Shielded Metal Arc Welding on Pipe</td>
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Total Certificate Units 21.0