

# COMPUTER INFORMATION SYSTEMS

## DEGREES, CERTIFICATES AND AWARDS

Associate in Science Degree (A.S.)

### DESCRIPTION

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

### PROGRAM LEARNING OUTCOMES

1. Describe the general characteristics of a computer system and identify types of computer hardware and software and explain their functions.
2. Show understanding of accounting applicable to recording and reporting of business transactions and show proficiency utilizing computerized financial software.
3. Create computer programs using a program language that incorporates good design principles and meets specifications.

### ASSOCIATE DEGREE PROGRAM

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

### CAREER OPPORTUNITIES

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

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

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



### TRANSFER PREPARATION

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

#### Transfer Resources:

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

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

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

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

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

### FINANCIAL AID

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

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## ASSOCIATE DEGREE PROGRAM

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

Thirty (30.0) units required for the major.

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

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

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

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

CIS	202*	Programming in Visual Basic (3.0)	
CIS	210*	Programming in C++ (3.0)	
CS	170*	Introduction to Unix/Linux (3.0)	
CS	220*	Introduction to Object-Oriented Programming Using Java (4.0)	

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

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

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

Total Major Units	30.0
IVC Graduation Requirements and GE Pattern:	30.0
Electives (as needed to reach 60 degree applicable units)	
<b>Total Maximum Units:</b>	<b>60.0</b>