

# COMPUTER INFORMATION SYSTEMS (CIS)

**PROGRAM DESCRIPTION:**

The Computer Information Systems program is designed to (1) prepare students for the employment market at the entry level in computer and information technology in all sizes and types of organizations, (2) provide a foundation for those students who plan to complete a four-year program in computer information systems or related fields of study, and (3) provide skills to upgrade current skills to assume greater responsibility in a current employment position. This major prepares students for Information Technology careers in networking, hardware support, programming, Internet and Web development, game development, or other emerging technologies depending on the courses selected.

**CAREER AT A GLANCE:**

### HOW DO I KNOW IF THIS MAJOR IS FOR ME?

- You enjoy learning about computers
- You like listening to people and coming up with solutions to problems
- You like to take apart and build computers
- You like to diagnose and troubleshoot computer or network problems
- You enjoy installing software programs
- You like set procedures and routines
- You enjoy providing a service to others
- You want to work independently and on a team
- You want to plan and implement effective computer systems
- You like developing web pages
- You want to learn about computer programming
- You are interested in game development
- You like managing social media accounts

*Use Focus2Career on your MyChaffey portal to learn more about careers and majors that fit you best.*

### WHERE CAN I WORK?

Internet Access Providers	Wireless Service Providers
Computer Repair Companies	Small Businesses
Government Offices	City/County Offices
Educational Institutions	Medical Facilities
Computer Industry	

*For more information visit: [www.labormarketinfo.edd.ca.gov/OccGuides](http://www.labormarketinfo.edd.ca.gov/OccGuides)*

### HOW DO I GET STARTED?

- Start taking introductory computer technology courses
- Job shadow and network with information technology professionals
- Volunteer to work on new projects
- Update resume with technology proficiencies, experiences and related coursework

### WHAT CAN I DO WITH THIS CERTIFICATE AND/OR ASSOCIATE DEGREE?

<i>Position Title</i>	<i>CA Median Salary</i>
Computer Support Specialist	\$59,430
Computer Technician	\$59,430
Help Desk Analyst	\$59,430
Web Developer	\$76,880
Network Support Specialist	\$72,080
Game Developer	\$94,070
Information Technology Specialist	\$108,390
Network Technician	\$72,080
Technical Support Specialist	\$59,430
Small Business Owner	Varies
Freelance	Varies

### WHAT CAN I DO WITH HIGHER EDUCATION AND ADDITIONAL TRAINING?

<i>Position Title</i>	<i>CA Median Salary</i>
Computer Systems Administrators	\$92,290
IT Project Manager	\$94,070
Computer Systems Analyst	\$97,940
Network Administrator	\$92,290
Computer Network Architect	\$125,190
Systems Engineer	\$94,070
Information Systems Director	\$161,830
Technical Services Manager	\$161,830
Application Development Director	\$76,880
Computer Systems Teacher	\$99,640
Database Administrator	\$95,500
Information Research Scientist	\$123,130
Software Quality Assurance	\$94,070
Software Developer	\$121,210
Computer Programmer	\$93,620

*For more information about careers, education and training requirements, salary data, and job outlooks visit [www.onetonline.org](http://www.onetonline.org).*

For additional information about career pathways and to find out if this major is a good fit for you visit the Career Center located in MACC 203. Career information was collected from [www.onetonline.org](http://www.onetonline.org) and [www.bls.gov](http://www.bls.gov).

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**MAJOR AND COURSE REQUIREMENTS:**

**LEGEND:** G=Grade    IP=In Progress    N=Need    **Bold: Prerequisites**    Plain Text: No Prerequisites

**Requirements for the Associate in Science Degree: (S100)**

		<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
CIS 1	Introduction to Computer Information Systems				3
CIS 4	Fundamentals of Microsoft Windows				1.5
<b>CIS 50</b>	<b>Introduction to Computer Networks</b>				<b>3</b>
CIS 68	Internet Technologies				1.5
CIS 420	Computer Security Basics				1.5
CIS 421	Social Media Technology				1.5
CIS 460	Fundamentals of Coding				1.5
<b>CISHDSP 40</b>	<b>Microcomputer Hardware</b>				<b>3</b>
<b>CISPROG 1</b>	<b>Introduction to Computer Programming</b>				<b>3</b>
CISIWEB 72	Web Page Development and Publishing				3
CISIWEB 424	WordPress Web Development				1.5

Student Name: \_\_\_\_\_

ID#: \_\_\_\_\_

Date: \_\_\_\_\_

Counselor: \_\_\_\_\_

*\*Plus a professional emphasis selection from the options below (minimum of 12 units)\**

**CISCO Internetworking:**

		<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
CISCO 1	CISCO Internetworking I				4
CISCO 2	CISCO Internetworking II				4
CISCO 3	CISCO Internetworking III				4
CISCO 4	CISCO Internetworking IV				4
CISCO 415	CISCO Internetworking V				4
CISCO 416	CISCO Internetworking VI				4
CISCO 417	CISCO Internetworking VII				4
CISCO 418	CISCO Internetworking VIII				4
CISCO 419	CISCO Internetworking IX				4
CISCO 420	CISCO Internetworking X				4

**Computer Science:**

		<b>Grade</b>	<b>IP</b>	<b>Need</b>	<b>Units</b>
<b>CISPROG 1</b>	<b>Introduction to Computer Programming</b>				<b>3</b>
<b>CISPROG 5</b>	<b>Programming with Python</b>				<b>3</b>
COMPSCI 1	Programming Concepts and Methodology I				3
<b>COMPSCI 2</b>	<b>Programming Concepts and Methodology II</b>				<b>3</b>
<b>COMPSCI 3</b>	<b>Computer Architecture and Organization</b>				<b>3</b>
COMPSCI 401	Introduction to Virtual and Augmented Reality				3

**COUNSELOR NOTES:**


\$46 per unit for CA Residents

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In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center.  
 All courses required for a certificate must be completed with a minimum grade of C.

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***Cyber Security:***

		Grade	IP	Need	Units
CISCO 416	CISCO Internetworking VI				4
CISNTWK 11	Microsoft Network Server				3
CISNTWK 12	Introduction to Network Security Administration				3
CISNTWK 20	Introduction to Cybersecurity: Ethical Hacking				3
CISNTWK 70	Virtualization and Cloud Essentials, and Amazon Web Services (AWS)				4

***Game Development:***

		Grade	IP	Need	Units
CISGAME 1	Fundamentals of Game Development				3
CISGAME 2	Fundamentals of Game Development II				3
CISGAME 403	Fundamentals of Game Programming				3
CISGAME 420	Mobile/Web Game Development				3

***Networking:***

		Grade	IP	Need	Units
CISNTWK 11	Microsoft Network Server				3
CISNTWK 12	Introduction to Network Security Administration				3
CISNTWK 20	Introduction to Cybersecurity: Ethical Hacking				3
CISNTWK 413	TCP/IP				1.5
CISNTWK 435	Introduction to the Linux Operating System				3

***Programming:***

		Grade	IP	Need	Units
CISPROG 5	Programming with Python				3
CISIWEB 74	Creating Dynamic Web Content using JavaScript				3
COMPSCI 1	Programming Concepts and Methodology I				3
COMPSCI 2	Programming Concepts and Methodology II				3

***Social Media:***

		Grade	IP	Need	Units
ART 82	Introduction to Digital Media (or ART 83, Web Design)				4
BUSMKT 55	Advertising				3
COMSTD 12	Mass Communication and Society				3
JOUR 11	Multimedia Reporting (or JOUR 30, Student Media Practicum I)				3
PHOTO 7	Introduction to Digital Photography				4

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<i>Data Analytics:</i>		Grade	IP	Need	Units
BUS 49	Business Decisions Using Basic Quantitative Tools				3
BUSTEC 63	Microsoft Office Excel – Comprehensive				3
<b>CIS 15</b>	<b>Introduction to Database and Database Management Systems</b>				<b>3</b>
<b>CISPROG 5</b>	<b>Programming with Python</b>				<b>3</b>
<b>CISPROG 6</b>	<b>Python Data Analytics</b>				<b>3</b>
SCSCI 10	Statistics for Social Science				4

<i>Technology and Innovation:</i>		Grade	IP	Need	Units
<b>CISNTWK 20</b>	<b>Introduction to Cybersecurity: Ethical Hacking</b>				<b>3</b>
<b>CISNTWK 70</b>	<b>Virtualization and Cloud Essentials, and Amazon Web Services (AWS)</b>				<b>4</b>
<b>CISNTWK 471</b>	<b>AWS Academy Cloud Computing Architecture</b>				<b>4</b>
COMPSCI 401	Introduction to Virtual and Augmented Reality				3

***Requirements for the Computer Information Systems Certificate: (L100)***

Same as the major requirements for the A.S. Degree, *except you may not use the Data Analytics emphasis for the certificate.*