

# COMPUTER INFORMATION SYSTEMS CERTIFICATE

PROGRAM CODE: 2C21267A

The **Computer Information Systems Certificate** is designed to prepare students for entry-level employment in programming, networking, website design, database design and administration, cyber-security, project management, or game design. Students learn in a well-equipped technical environment for instruction and lab. CIS courses are taught providing hands-on experience in the use of industry-standard hardware, application software, operating systems, networking, and programming tools. This program also requires students to choose a "Career Track" from the sets of Restricted Electives below. This certificate requires 20-23 units. A grade of C or better is required in each class taken.

Code	Title	Units
<b>Required Courses (14 units):</b>		
CIS 100 F	Introduction to Personal Computers	4
or CIS 100HF	Honors Introduction to Personal Computers	
or CIS 111 F	Introduction to Information Systems	
or CIS 111HF	Honors Introduction to Information Systems	
CIS 180 F	Introduction to Networking Concepts	4
CIS 201 F	Introduction to Python Programming	3
CYBR 106 F	Introduction to Cybersecurity	3
<b>Restricted Electives: Choose ELECTIVES from ONE CAREER TRACK below to meet the minimum program unit requirements:</b>		<b>6-9</b>
<b>Cyber Security Career Track: Select the following courses (9 units):</b>		
CYBR 206 F	Ethical Hacking	3
CYBR 210 F	Network Security	3
CYBR 230 F	Scripting Fundamentals	3
<b>OR</b>		
<b>Programming Career Track: Select the following courses (6-7 units):</b>		
CIS 223 F	Programming in C++	3
or CIS 226 F	Java Programming I	
CIS 142 F	Database I	3
<b>OR</b>		
<b>Network Administration Career Track: Select the following courses (6 units):</b>		
CIS 181 F	Computer Certification Preparation	3
CIS 182 F	Computer Certification Prep II	3
<b>OR</b>		
<b>Web Design Career Track: Select the following courses (9 units):</b>		
CIS 152 F	Web Design I (formerly Web Page Design II)	3
CIS 157 F	Web Design II (formerly Dreamweaver I)	3
CIS 176 F	Web Page Layout with CMS	3
<b>OR</b>		
<b>Information System Project Management Career Track: Select the following courses (9 units):</b>		
CIS 123 F	Beginning Word Processing (MS Word) (formerly Word Processing)	3
CIS 106 F	Beginning Spreadsheet (MS Excel)	3

CIS 120 F	Project Management I	3
<b>OR</b>		
<b>Game Design Career Track: Select the following courses (6 units):</b>		
CISG 100 F	Introduction to Computer Game Design	3
CISG 110 F	Introduction to Programming for Computer Games	3
<b>Total Units</b>		<b>20-23</b>

**Outcome 1:** Demonstrate proficiency in one or more common Business Software and web design programs to design, create, and analyze various business documents and websites.

**Outcome 2:** Demonstrate an understanding of common computer technology related terms to identify, interpret, and classify common technology concepts.

[https://www.curricunet.com/fullerton/reports/program\\_report.cfm?programs\\_id=1324](https://www.curricunet.com/fullerton/reports/program_report.cfm?programs_id=1324)