The **Computer Information Systems** program is for students interested in the application of computer hardware and software to business. CIS courses prepare students for entry-level positions in computer and IT support, infrastructure, networking, database, website development, and cybersecurity. These courses may be used for job advancement, an associate degree or certificate of competency, or transfer to a four-year institution. CIS courses cover major programming languages (Visual BASIC and Java) as well as software used in business for database management, and networking.

Santa Ana College offers the IT Support Specialist, IT Desktop and Server Operations, IT Network and Security Operations, Database, Enterprise Systems, and Web Site Development certificates which offer many Information Technology job opportunities.

Santa Ana College is proud to be a CompTIA Partner Academy.

CompTIA AUTHORIZED ACADEMY

Microsoft

ITF+

A+

Network+

Security+

Computer Information Systems (CIS)

ACADEMIC PROGRAMS:

1. IT Support Specialist
2. IT Desktop and Server Operations
3. IT Network and Security Operations
4. Database
5. Enterprise Systems
6. Web Site Development

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COMPUTER INFORMATION SYSTEMS

Earn Certificates and Degrees
Information Technology and Cybersecurity

CompTIA AUTHORIZED ACADEMY

Microsoft

- IT Help Desk
- IT Specialist
- Network Administrator
- Systems Administrator
- Database Administrator
- Web Developer

Information Technology Leads to Jobs

sac.edu/it

IT Support Specialist

The IT Support Specialist certificate of achievement is based on the learning objectives from the CompTIA IT Fundamentals (ITF+) and CompTIA A+ certifications. This certificate includes help desk 'soft skills' such as effective communication, analytical and critical thinking, diplomacy, problem solving, leadership, team building, and listening skills. Students will gain hands-on experience in a help desk environment, and gain 'on the job' work experience with an IT internship.

Take ALL of the following courses:		Units
CMPR 100	The Computer and Society	3
CMPR 104	Cooperative Work Experience Education-Occupational	1-4
CMPR 125	Help Desk Fundamentals	3
CMPR 134	Microsoft Windows Operating System	3
CMPR 153	A+ Essentials Hardware	3
CMPR 155	A+ Essentials Software	3
	Total Units	14.5-17.5

IT Desktop and Server Operations

The IT Desktop and Server Operations certificate of achievement is designed to prepare students in the technical field of desktop, server, and network management. Technical background in operating systems, LAN infrastructure, networks, virtualization, Microsoft and Linux server & client technologies, cloud-based solutions, Students will be prepared to take the CompTIA A+ and Network+ certifications.

Take ALL of the following courses:		Units
CMPR 134	Microsoft Windows Operating System	3
CMPR 153	A+ Essentials Hardware	3
CMPR 155	A+ Essentials Software	3
CMPR 138	CompTIA Network+ Guide to Networks	3
CMPR 247	Windows Server Operating System	3
	Total Units	15

IT Network and Security Operations

The IT Network and Security Operations certificate is to train and certify the competencies of an information security analyst. best practices and solutions in secure network design and management, cyber defense, pen testing, vulnerability risk assessment, disaster response and recovery.

Take ALL of the following courses:		Units
CMPR 138	CompTIA Network+ Guide to Networks	3
CMPR 153	A+ Essentials Hardware	3
CMPR 155	A+ Essentials Software	3
CMPR 175	CompTIA Security+ Guide to Network Security	3
CMPR 247	Windows Server Operating System	3
	Total Units	15

Jobs	Annual Salary
Computer Support Specialist	$53,470
Network Administrator	$82,050
Database Administrator	$90,070
Web Developer	$69,430
SOURCE: U.S. Bureau of Labor Statistics	

Database

The database certificate trains students in becoming Database Administrators, Database Architects, Data Analysts, and or Business Analysts. Students will learn how to create and design relational database systems, maintain database systems, and backup data with a host of related database topics.

Take ALL of the following courses:		Units
CMPR 105	Visual BASIC Programming	3
CMPR 167	Microsoft Access	3
CMPR 168	Advanced Microsoft Access	3
CMPR 169	Structured Query Language (SQL)	3
CMPR 205	Advanced Visual BASIC	3
	Total Units	15

Enterprise Systems

Prepares students to be involved with running Enterprise (large-scale) computer systems. Students will learn how to design and configure multi-computer networking systems, configure, administrate, and maintain servers, and manage related issues such as reliability, safety and security.

Take ALL of the following courses:		Units
CMPR 138	CompTIA Network+ Guide to Networks	3
CMPR 247	Windows Server Operating System	3
CMPR 248	Microsoft SQL Server	3
CMPR 249	Microsoft Internet Information Server (IIS)	3
	Total Units	12

Web Site Development

The Web Site Development certificate gives students the skills to design, implement, and publish web content using HTML, CSS, and JavaScript.
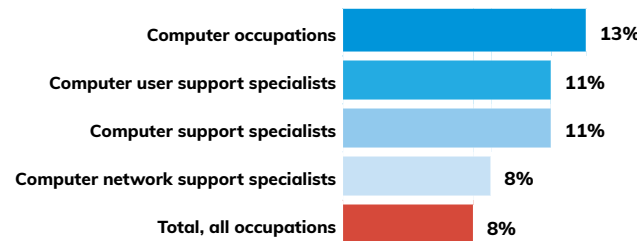
Take the following 2 courses:		Units
CMPR 152	HTML	3
CMPR 118	Javascript Programming	3
Select ONE course from the following:		
CMPR 112	Java Programming	3
CMPR 213	C# Programming	3
	Total Units	9

COMPUTER SUPPORT SPECIALISTS
Percent change in employment, projected 2016-26

Computer occupations	13%
Computer user support specialists	11%
Computer support specialists	11%
Computer network support specialists	8%
Total, all occupations	8%

Note: All Occupations includes all occupations in the U.S. Economy.
SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

Computer Information Systems Certificate and Degree

The Certificate of Achievement curriculum in Computer Information Systems is concerned with the development of procedures that are effective and efficient, computer languages suitable for starting these procedures, and systems for executing the procedures. This may include the ability to write programs in Visual BASIC, C++ or Java, experience in microcomputer data processing applications such as Excel or Access, and ability to structure data for the computer. Students intending to obtain a bachelor's degree in Computer Information Systems should consult the major and transfer requirements for upper-division standing listed under the Business Administration major at the 4-year institution of their choice.

Take ALL of the following courses:		Units
BA 189	Advanced Microsoft Excel	2
CMPR 105	Visual BASIC Programming	3
CMPR 134	Microsoft Windows Operating System	3
CMPR 167	Microsoft Access	3
CMPR 138	CompTIA Network+ Guide to Networks	3
CMPR 205	Advanced Visual Basic	3
CMPR 247	Windows Server Operating System	3
Select ONE course from the following:		
BUS 150	Introduction to Information Systems and Applications	3
CMPR 100	The Computer and Society	3
Select a minimum of THREE units from the following:		
ACCT 101	Financial Accounting	4
ACCT 102	Managerial Accounting	4
CMPR 104	Cooperative Work Experience Education-Occupational	1-16
CMPR 112	Java Programming	3
CMPR 118	JavaScript Programming	3
CMPR 120	Introduction to Programming	3
CMPR 121	Programming Concepts	3
CMPR 125	Help Desk Fundamentals	3
CMPR 152	HTML	3
CMPR 153	A+ Essentials Hardware	3
CMPR 155	A+ Essentials Software	3
CMPR 169	Structured Query Language (SQL)	3
CMPR 175	CompTIA Security+ Guide to Network Security	3
CMPR 248	Microsoft SQL Server	3
	Total Units	26