

# COMPUTER INFORMATION SYSTEMS

ASSOCIATE DEGREE &amp; CERTIFICATE PROGRAMS

2021-2022 CATALOG

## DESCRIPTION

Computer Information Systems encompasses the fields of Computer Science and Information Systems. Primary fields of study include software development, programming, and applications. Careers in today's information systems require knowledge and hands-on experience in microcomputer applications as well as programming. Professionals in the computing field 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 degree requirements are designed to satisfy core requirements for many Computer Science and Information Systems transfer patterns. However, students should consult a counselor and especially the catalog of the intended transfer institution for specific transfer requirements in the major. 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. The program also offers certificates and courses for high-demand skill areas such as mobile device development.

## ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS

**An Associate Degree**, depending on the focus of study, is designed to prepare students for transfer into upper division course work in a bachelor's degree program, or, to prepare students to enter the workforce in a particular vocational field. To qualify for an Associate's Degree, a student must: (1) complete each major-specific course required for the degree with at least a "C" grade or better, (2) complete all Cuesta College general education, graduation and residency requirements, and (3) achieve an overall grade point average of 2.0 for all courses attempted (major, general education, elective).

**A Certificate Program** is designed for students who desire specific training to meet an immediate occupational or personal goal, or for promotion or lateral transfer within their existing field of employment. To qualify for a Certificate of Achievement or a Certificate of Specialization, a student must 1) complete all courses required for the Certificate with an overall grade point average of 2.0.

## DEGREES, CERTIFICATES & AWARDS

- Associate in Science (A.S.)
- Certificate of Specialization (C.S.)

## CAREER OPPORTUNITIES

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

## CONTACT

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**ASSOCIATE DEGREE PROGRAM****Computer Science** — Associate in Science**Required Courses (37 credits)**

CIS 201 . . . . .	Introduction To Computer Science . . . . .	3
CIS 231 . . . . .	Fundamentals Of Computer Science I . . . . .	4
CIS 232 . . . . .	Fundamentals Of Computer Science II . . . . .	2
CIS 233 . . . . .	Fundamentals Of Computer Science III . . . . .	2
CIS 240 . . . . .	Microcomputer Architecture & Programming . . . . .	3
CIS 241 . . . . .	Discrete Structures . . . . .	3
CHEM 201A . . .	General College Chemistry I . . . . .	5
and		
CHEM 201B . . .	General College Chemistry II . . . . .	5
or		
PHYS 208A . . .	Principles Of Physics 1 . . . . .	(5)
and		
PHYS 208B . . .	Principles Of Physics 2 . . . . .	(5)
MATH 265A . . .	Calculus I . . . . .	5
MATH 265B . . .	Calculus II . . . . .	5
<b>Total Credits:</b> . . . . .		<b>37</b>

[Click Here For Program Student Learning Outcomes](#)**ASSOCIATE DEGREE PROGRAM****Management Information Systems** — Associate in Science**Required Courses (38 credits)**

ACCT 201A . . .	Financial Accounting . . . . .	4
ACCT 201B . . .	Managerial Accounting . . . . .	4
BUS 218 . . . . .	Business Law . . . . .	4
CIS 201 . . . . .	Introduction To Computer Science . . . . .	3
CIS 210 . . . . .	Introduction To Computer Applications . . . . .	4
CIS 216 . . . . .	Electronic Spreadsheet Applications . . . . .	4
CIS 231 . . . . .	Fundamentals Of Computer Science I . . . . .	4
CIS 232 . . . . .	Fundamentals Of Computer Science II . . . . .	2
ECON 201A . . .	Principles Of Macroeconomics . . . . .	3
ECON 201B . . .	Principles Of Microeconomics . . . . .	3
MATH 255 . . . .	Calculus For Business And Management . . . . .	3
<b>Total Credits:</b> . . . . .		<b>38</b>

[Click Here For Program Student Learning Outcomes](#)**TRANSFER PREPARATION**

Courses that fulfill major requirements for an associate degree may differ from those needed to prepare to transfer. Students who plan to transfer to a four-year college or university should schedule an appointment with a Cuesta College counselor to develop a student education plan (SEP) before beginning their program.

**TRANSFER RESOURCES:**

CSU and UC Articulation Agreements and Majors Search Engine:

[www.ASSIST.org](http://www.ASSIST.org)

CSU System Information:

[www2.calstate.edu](http://www2.calstate.edu)

**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 Cuesta College offers a full array of financial aid programs—grants, work study, scholarships, federal loan programs, and fee waivers. 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.cuesta.edu/student/student-services/financial-aid](http://www.cuesta.edu/student/student-services/financial-aid)

**CERTIFICATE PROGRAMS**

**Cloud Computing** — Certificate of Achievement

**Required Courses**

CIS 201 . . . . .	Introduction To Computer Science . . . . .	3
CIS 220 . . . . .	Introduction To Cloud Computing . . . . .	2
CIS 223 . . . . .	Cloud Programming . . . . .	3
CIS 225 . . . . .	Cloud Databases . . . . .	2
CIS 226 . . . . .	Cloud Architecture And Security . . . . .	3
CIS 203 . . . . .	IOS Development I . . . . .	3
or CIS 207 . . . . .	Android Development I . . . . .	(3)
<b>Total Credits:</b> . . . . .		<b>16</b>

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**Android Developer** — Certificate of Specialization

**Required Courses (6 credits)**

CIS 207 . . . . .	Android Development I . . . . .	3
CIS 208 . . . . .	Android Development II . . . . .	3
<b>Total Credits:</b> . . . . .		<b>6</b>

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**Internet Applications Developer** — Certificate of Specialization

**Required Courses (8 credits)**

CIS 201 . . . . .	Introduction To Computer Science . . . . .	3
CIS 220 . . . . .	Introduction To Cloud Computing . . . . .	2
CIS 223 . . . . .	Cloud Programming . . . . .	3
<b>Total Credits:</b> . . . . .		<b>8</b>

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**IOS Developer** — Certificate of Specialization

**Required Courses (6 credits)**

CIS 203 . . . . .	IOS Development I . . . . .	3
CIS 204 . . . . .	IOS Development II . . . . .	3
<b>Total Credits:</b> . . . . .		<b>6</b>

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