



Cybersecurity Certificate

This certificate provides graduates with the skills needed to defend networks and information systems against cyber-attacks. Students receive extensive hands-on experience and develop the knowledge and abilities necessary to succeed in the protection of an organization's data and operations. It is a rigorous one-year fully online program designed to help students master the fundamentals of cybersecurity by applying industry-accepted and emerging practices to solve real-world security problems. Upon completion of the program, students will be able to evaluate security trends, recognize best practices, and understand Information Technology security products and threats. Some career opportunities associated with this degree include: security analyst, network systems security administrator, security policy analyst, and more.

Total Units: 29.5

First Year

Summer

4 Units

| COURSE | UNITS | PRE-REQS ^A | SEMESTERS OFFERED* |
|--|-------|--------------------------------|--------------------|
| CISC 360¹ Z Information & Communication Technology Essentials (A+) | 4 | Advisory: CISC 302 & 310 | F(O,P) |

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

¹ or COMPTIA A+ certification

Semester 1 - 1st Eight Weeks

6 Units

| COURSE | UNITS | PRE-REQS ^A | SEMESTERS OFFERED* |
|--|-------|--|--------------------|
| CISC 310² Z Introduction to Computer Information Science | 3 | Advisory: Students should be familiar with basic functions of word processing, spreadsheet, and web browser software applications, or they should have successfully completed a Computer Technology course in middle or high school. | F(O,P), S(O) |
| CISN 303³ Z Network Administration - Linux Server | 3 | Advisory: CISC 323 | F(O) |

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there

Career

Options/Outlook:

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses. **Career opportunities may require more than two years of college study.**

A sample of reported job titles:

Security analyst, network system security administrator, security policy analyst, information security analyst, data security administrator information security officer, information security specialist, information system security analyst, IT security analyst, IT specialist, network security analyst.

Projected job openings in US (2021-2031):

19,500

Projected growth in US (2021-2031):

35% growth

may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

² or CompTIA ITF+ certification

³ or CompTIA Linux+ certification

Semester 1 - 2nd Eight Weeks

6 Units

| COURSE | UNITS | PRE-REQS [^] | SEMESTERS OFFERED* |
|---|-------|-----------------------|--------------------|
| CISN 304⁴ Z Networking Technologies | 3 | Advisory: CISC 356 | |
| CISS 310⁵ Network Security Fundamentals | 3 | Advisory: CISC 310 | |

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

⁴ or CompTIA Network+ certification

⁵ or CompTIA Security+ certification

Semester 2 - 1st 8 weeks

6.5 Units

| COURSE | UNITS | PRE-REQS [^] | SEMESTERS OFFERED* |
|---|-------|---|--------------------|
| CISN 341⁶ Z CISCO Networking Academy (CCNA)tm:Switching, Routing, and Wireless Essentials | 3.5 | Corequisite: CISN 304 (may be taken previously) | |
| CISS 316⁷ Z Cisco Networking Academy(R): CyberOps Associate | 3 | Advisory:CISN 304, CISS 300 or 310 | |

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

⁶ or CISCO CCENT certification

⁷ or CCNA CyberOPS certification

Semester 2 - 2nd 8 weeks

7 Units

| COURSE | UNITS | PRE-REQS [^] | SEMESTERS OFFERED* |
|--|-------|-----------------------|--------------------|
| CISN 342⁸ Z CISCO Networking Academy (CCNA)tm: Enterprise Networking, Security, and Automation | 3.5 | CISN 342 | |
| CISS 327⁹ Z Cisco Networking Academy(R): Network Security | 3.5 | CISN 304, 341 | |

Median Salary in California with advanced degree (2021):

\$102,600/yr

Source:

<https://www.onetonline.org/link/summary/15-1122.00>

About this map:

This program map represents one possible pathway to complete the program. Please see a counselor to create an education plan that is customized to meet your needs. This map is not a guarantee of course

availability or financial aid applicability.

Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs page](#) of the college website.

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

⁸ or CCNA Automation and Programmability certification

⁹ or CCNA Security certification

Catalog Year: 2024-2025

Counselor Contact: Chris Torres or Ea Edwards | Faculty Contact: Lance Parks

Published July 15, 2024