

Complete one of the following general education patterns:

- OPTION A Cerro Coso Local General Education Pattern
- OPTION B CSU General Education Breadth
- OPTION C IGETC - Intersegmental General Education Transfer Curriculum

## Computer Information Systems Certificate of Achievement

The Computer Information Systems Certificate of Achievement (23-24 units) is designed for students pursuing professional employment in computer information systems for business. This certificate provides students with skills to enter the job market as help desk providers, computer support specialists, entry level programmers, networking technicians, information assurance technicians, and cybersecurity technicians.

Complete each course to be applied toward the certificate with a "C" or better. Complete a minimum of 12 units in residence at Cerro Coso Community College.

This program prepares students for careers in Computer Information Systems: Computer Programmer, Computer Repair (A+ Certified), Computer Operator, Computer Support Specialist, Network Technician, Help Desk Technician.

### Program Learning Outcomes

Upon successful completion of the program, the student will be able to

- Demonstrate competency in client computing and user support including the ability to configure, install, diagnose, and support hardware and software issues.
- Demonstrate competency in database and information management including the ability to design, implement, query, and manage relational databases.
- Demonstrate competency in networking and convergence including the ability to design, analyze, and support computer networks.
- Demonstrate competency in problem solving, programming, and application development including the ability to design, test, debug, and implement complex computer programs.

- Demonstrate competency in working with servers, storage, and virtualization including implementing and evaluating network security solutions.
- Demonstrate an ability to read and interpret technical information, as well as communicate with and write clearly for wide ranges of audiences.

### Courses

*Note: Some courses within the major may have a required prerequisite. If you feel you have equivalent knowledge and skills to those included in the prerequisite course through professional experience, licensure or certification, you have the opportunity to submit a Prerequisite Challenge to be reviewed by the faculty chair. For the Prerequisite Challenge to be considered, you must submit documentation/verification to substantiate the basis for the challenge. Please consult a counselor for more information regarding Prerequisite Challenge.*

Complete all of the following courses:

CSCI C101	Introduction to Computer Information Systems.....	3 Units
CSCI C142	Information & Communication Technology Essentials.....	4
CSCI C143	Computer Network Fundamentals .....	3
CSCI C146	Introduction to Information Systems Security .....	3
CSCI C251	Introduction to Programming Concepts and Methodologies .....	3
CSCI C270	Introduction to Database Design/Management .....	3

Select 4-5 units from the following:

MATH C121	Elementary Probability and Statistics .....	4
or MATH C121H	Elementary Probability and Statistics: Honors .....	5
MATH C130	Finite Mathematics .....	4
MATH C131	Basic Functions and Calculus for Business.....	4
MATH C151	Analytic Geometry and Calculus I .....	5

### Disclosures

Gainful Employment information for this program may be found at <http://www.cerrocoso.edu/academics/programs>.

## Data Analyst I Certificate of Achievement

The Data Analyst I Certificate of Achievement (12 units): The purpose of this certificate is to prepare students for positions in data collection, data processing, and data analysis and to provide a

foundation for future training in data science and big data analysis. Courses in the program provide students with the skills to work with others to manage large projects; design and manipulate databases with SQL



and database management systems; write computer programs to access and manipulate data files and databases; and work with electronic spreadsheets and database management systems to create models and analyze results.

Students entering the Data Analyst I Certificate program are expected to have completed BSAD 100 (Introduction to Business) and CSCI 101 (Introduction to Computer Information Systems) or the equivalent.

Complete each course to be applied toward the certificate with a "C" or better. Complete a minimum of 12 units in residence at Cerro Coso Community College.

### Program Learning Outcomes

Upon successful completion of the program, the student will be able to:

- Manage multiple components, timelines, technology, and people related to data analysis projects.
- Design, create, query, and manage databases for analytic processing using SQL and DBMS applications.

- Write computer programs to access and manipulate data files and databases.
- Analyze data using forecasting, optimization, and changing scenarios and prepare reports using spreadsheets, word processing, and database management programs.

### Courses

*Note: Some courses within the major may have a required prerequisite. If you feel you have equivalent knowledge and skills to those included in the prerequisite course through professional experience, licensure or certification, you have the opportunity to submit a Prerequisite Challenge to be reviewed by the faculty chair. For the Prerequisite Challenge to be considered, you must submit documentation/verification to substantiate the basis for the challenge. Please consult a counselor for more information regarding Prerequisite Challenge.*

Complete all the following courses.

BSAD C220	Principles of Project Management.....	3 Units
BSAD C222	Problem Solving, Decision Making, and Computer Applications in Business .....	3
CSCI C251	Introduction to Programming Concepts and Methodologies .....	3
CSCI C270	Introduction to Database Design and Management .....	3

## Early Childhood Education Associate in Science Degree for Transfer (AS-T)

Please see Child Development/Early Childhood Education Associate in Science Degree for Transfer (AS-T)

## Emergency Medical Technician Job Skills Certificate

The Emergency Medical Technician job certificate (7 units) is designed to provide career pathways into Emergency Medical Services through pre-hospital and clinical education from basic body systems to the intricate and often changing emergent medical care provided to the sick and injured. Successful completion of this job certificate provides a wide range of components for those interested in entering the job market directly or progressing to Paramedic, nursing or moving into pre-medicine to become a Physician Assistant or Medical Doctor.

Complete each course to be applied toward the certificate with a grade of "C" or better.

### Program Learning Outcomes

Upon successful completion of the program, the student will be able to

- Identify the correct sequence of assessments

and treatments for patients experiencing cardiopulmonary arrest.

- Identify the etiology, pathophysiology and signs and symptoms of disorders of all body systems.
- Identify critical medical patient conditions using standardized medical patient assessments.
- Identify critical traumatic patient conditions using standardized trauma patient assessments.
- Demonstrate leadership during the management of critical patient conditions.
- Demonstrate the ability to utilize resources to resolve medical and trauma patient conditions.

### Courses

*Note: Some courses within the major may have a required prerequisite. If you feel you have equivalent knowledge and skills to those included in the prerequisite course through professional*