

COMPUTER SCIENCE, LIBERAL ARTS (AS)

Degree: Associate of Science
Major: Liberal Arts
Emphasis: Computer Science
Program Code: 2421

About This Major . . .

Computer science is the study of algorithms and the issues involved in implementing them. The Computer Science Associates Degree includes courses in web page design, various programming languages, data structures and computer architecture. While the degree prepares students to complete a BS in Computer Science (which is strongly recommended), employment opportunities are open to the successful graduate, including positions such as web development, computer operators, and/or technical support positions.

For more information on what you can do with this major, visit Career Services' *What to Do with a Major?* (<https://www.coloradomesa.edu/career/students/explore/major.html>) resource or the CMU Computer Science (<https://www.coloradomesa.edu/computer-science>) website.

All CMU/WCCC associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Write programs in a general purpose programming language (Specialized Knowledge/Applied Learning)
2. Develop a software solution to a problem given a technical specification (Specialized Knowledge)
3. Demonstrate an understanding of computer hardware (Specialized Knowledge)

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or WCCC Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English ¹		
ENGL 111	English Composition-GTCO1	3
ENGL 112	English Composition-GTCO2	3
Mathematics ¹		
MATH 113	College Algebra-GTMA1 ²	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences ³		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		31

¹ Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

² 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

³ 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1

Select one Activity course	1
Total Semester Credit Hours	2

Program Specific Degree Requirements

(27 semester hours)

Required for this degree:

- 2.50 cumulative GPA or higher in all CMU coursework and in coursework toward major content area.

Code	Title	Semester Credit Hours
Core Classes		
CSCI 111	CS1: Foundations of Computer Science	4
CSCI 112	CS2: Data Structures	4
CSCI 206	Web Page Design II	3
CSCI 241	Computer Architecture and Assembly Language	4
CSCI 250	CS3: Introduction to Algorithms	3
Select one of the following courses:		3
CISB 205	Advanced Business Software	
CSCI 130	Introduction to Engineering Computer Science	
CSCI 310	Advanced Programming: ¹	
Total Semester Credit Hours		21

¹ CSCI 310 is offered for various current languages for 1-3 credit hours. Students may take any mix of classes to reach a total minimum of 3 hours but no language may be counted more than once.

General Electives

(6 Semester Hours)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Electives ¹		5
Total Semester Credit Hours		6

¹ MATH 119, MATH 151/MATH 135, and/or MATH 152/MATH 136 are strongly recommended, particularly for those students who are considering going on to the Bachelor of Science in Computer Science degree.

Course	Title	Semester Credit Hours
First Year		
Fall Semester		
ENGL 111	English Composition-GTCO1	3
MATH 113	College Algebra-GTMA1	4
CSCI 111	CS1: Foundations of Computer Science	4
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
Semester Credit Hours		15
Spring Semester		
ENGL 112	English Composition-GTCO2	3

Computer Science Choice		3
CSCI 112	CS2: Data Structures	4
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
Semester Credit Hours		16
Second Year		
Fall Semester		
Essential Learning - History		3
CSCI 250	CS3: Introduction to Algorithms	3
Essential Learning - Natural Science with lab		4
Elective		3
Wellness Requirement - Activities Course		1
Semester Credit Hours		14
Spring Semester		
CSCI 206	Web Page Design II	3
CSCI 241	Computer Architecture and Assembly Language	4
Essential Learning - Natural Science without lab		3
Essential Learning - Humanities		3
Elective		2
Semester Credit Hours		15
Total Semester Credit Hours		60

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Science work.

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.