



**2018-2019 PROGRAM REQUIREMENTS**  
**Degree: Bachelor of Science**  
**Major: Computer Information Systems**

**About This Major . . .**

The Bachelor of Science in Computer Information Systems is a degree required today as organizations face the challenges of technology management. This program provides graduates with business management skills and computer information expertise to manage computer systems in today's organizations. Graduates of this program are employed in occupations such as systems analysts, analyst/programmers, database administrators, network administrators, web page designers, help desk specialists, and IT Managers.

Graduates assist businesses with creating, obtaining, and maintaining computer information systems that solve problems and assist in facilitating routine business events. As businesses increasingly rely on technology to provide a competitive advantage, employees with an understanding of both business concepts and computer systems are necessary. Computer information systems studies require students to examine computer systems from organizational, social, psychological, and technical perspectives. Graduates from this program will have taken a variety of courses that were developed based on national guidelines for quality degrees in information systems.

For more information on what you can do with this major, go to <http://www.coloradomesa.edu/career/whatmajor.html>.

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

1. Integrate knowledge from multiple functional areas of business to solve business problems and to develop sound business strategies. (Specialized Knowledge)
2. Apply business knowledge and skills in appropriate business contexts and transfer knowledge and skills to new business situations. (Critical Thinking)
3. Communicate clearly, appropriately, and persuasively to the business audience, both orally and in writing, including individual presentations. (Communication Fluency)
4. Analyze business data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate business conclusions. (Quantitative Fluency)
5. Effectively work as a team. (Applied Learning)
6. Strategically apply information across functional areas of business. (Applied Learning)
7. Produce professional business work products. (Applied Learning)
8. Practice principle-based ethics in decision making both personally and professionally. (Applied Learning)
9. Identify, formulate, and correctly solve information systems problems. (Specialized Knowledge)

**Advising Process and DegreeWorks**

This document 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.

## **INSTITUTIONAL DEGREE REQUIREMENTS**

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- 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 30 semester credit hours for a baccalaureate degree; A maximum of 15 of the 30 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.

## **PROGRAM-SPECIFIC DEGREE REQUIREMENTS**

- Must receive a grade of “C” or higher in all major area 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.

**English** (6 semester hours, must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.)

- ☐ ENGL 111 - English Composition (3)
- ☐ ENGL 112 - English Composition (3)

**Mathematics** (3 semester hours, must receive a grade of “C” or better, must be completed by the time the student has 60 semester hours.)

- ☐ MATH 113 - College Algebra (4)\* or higher
- \*3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit

**Humanities** (3 semester hours)

- ☐ Select one Humanities course (3)

**Social and Behavioral Sciences** (6 semester hours)

- ☐ Select one Social and Behavioral Sciences course (3)
- ☐ Select one Social and Behavioral Sciences course (3)

**Natural Sciences** (7 semester hours, one course must include a lab)

- ☐ Select one Natural Sciences course (3)
- ☐ Select one Natural Sciences course with a lab (4)

**History** (3 semester hours)

- ☐ Select one History course (3)

**Fine Arts** (3 semester hours)

- ☐ Select one Fine Arts course (3)

### **OTHER LOWER-DIVISION REQUIREMENTS**

**Wellness Requirement** (2 semester hours)

- ☐ KINE 100 - Health and Wellness (1)
- ☐ Select one Activity course (1)

**Essential Learning Capstone** (4 semester hours)

Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

- ☐ ESSL 290 - Maverick Milestone (3)
- ☐ ESSL 200 - Essential Speech (1)

### **FOUNDATION COURSES** (12-13 semester hours)

- ☐ ACCT 201 - Principles of Financial Accounting (3)
- ☐ CISB 205 - Advanced Business Software (3)
- ☐ One of the following courses:
  - CISB 206 - Business Application Programming (3)
  - CSCI 111 - CS1: Foundations of Computer Science (4)
  - Other Object-Oriented Programming Course approved by advisor (3)
- ☐ CISB 210 - Fundamentals of Information Systems (3)

**BS, COMPUTER INFORMATION SYSTEMS REQUIREMENTS** (54 semester hours, must earn a grade of “C” or better in each course)

**Computer Information Systems Core** (27 semester hours)

- ☐ One of the following courses:
  - CISB 101 - Business Information Technology (3)
  - CISB 305 - Solving Problems using Spreadsheets (3)
  - CISB 306 - Solving Problems using Databases (3)
- ☐ CIST 309 - Enterprise Systems (3)
- ☐ CISB 315 - Information Systems Infrastructure (3)
- ☐ CISB 331 - Advanced Business Programming (3)
- ☐ CISB 410 - Project Management (3)
- ☐ CISB 442 - Systems Analysis and Design (3)
- ☐ CISB 451 - Database Administration (3)
- ☐ CISB 470 - Management of Information Systems (3)
- ☐ CISB 471 - Advanced Information Systems (3)

**Business Support Classes** (21 semester hours)

- ☐ ACCT 202 - Principles of Managerial Accounting (3)
- ☐ BUGB 349 - Legal Environment of Business (3)
- ☐ ECON 201 - Principles of Macroeconomics (3)
- ☐ ECON 202 - Principles of Microeconomics (3)
- ☐ FINA 301 - Managerial Finance (3)
- ☐ MANG 201 - Principles of Management (3)
- ☐ MARK 231 - Principles of Marketing (3)

**Quantitative Analysis Courses** (6 semester hours)

- ☐ One of the following courses:
  - CISB 241 - Introduction to Business Analysis (3)
  - STAT 241 - Introduction to Business Analysis (3)
- ☐ CISB 341 - Quantitative Decision Making (3)

**GENERAL ELECTIVES** (All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 16-17 semester hours, 4-7 hours of upper division may be needed) (Recommended: TECI 260, CISB 460, CISB 305, or CISB 306)

- ☐ MATH 113 - College Algebra (1)
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
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## SUGGESTED COURSE SEQUENCING

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### Freshman Year, Fall Semester: 16 credits

- CISB 101 - Business Information Technology (3) or CISB 305 - Solving Problems using Spreadsheets (3) or CISB 306 - Solving Problems using Databases (3)
- ENGL 111 - English Composition (3)
- Essential Learning - History (3)
- Essential Learning - Humanities (3)
- MATH 113 - College Algebra (4)

### Freshman Year, Spring Semester: 15 credits

- CISB 205 - Advanced Business Software (3)
  - CISB 210 - Fundamentals of Information Systems (3)
  - ENGL 112 - English Composition (3)
  - Essential Learning - Fine Arts (3)
  - Essential Learning - Social and Behavioral Science (3)
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### Sophomore Year, Fall Semester: 15 credits

- ACCT 201 - Principles of Financial Accounting (3)
- CISB 206 - Business Application Programming (3) or CSCI 111 - CS1: Foundations of Computer Science (3)
- CISB 309 - Enterprise Systems (3)
- ECON 201 - Principles of Macroeconomics (3)
- MANG 201 - Principles of Management (3)

### Sophomore Year, Spring Semester: 15 credits

- ACCT 202 - Principles of Managerial Accounting (3)
  - CISB 241 - Introduction to Business Analysis (3) or STAT 241 - Introduction to Business Analysis (3)
  - CISB 315 - Information Systems Infrastructure (3)
  - ECON 202 - Principles of Microeconomics (3)
  - MARK 231 - Principles of Marketing (3)
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### Junior Year, Fall Semester: 16 credits

- CISB 341 - Quantitative Decision Making (3)
- CISB 331 - Advanced Business Programming (3)
- CISB 410 - Project Management (3)
- Essential Learning - Social and Behavioral Science (3)
- ESSL 290 - Maverick Milestone (3)
- ESSL 200 - Essential Speech (1)

### Junior Year, Spring Semester: 15 credits

- CISB 442 - Systems Analysis and Design (3)
  - CISB 470 - Management of Information Systems (3)
  - Essential Learning - Natural Science with Lab (4)
  - KINE 100 - Health and Wellness (1)
  - KINA Activity (1)
  - General Elective (3)
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### Senior Year, Fall Semester: 15 credits

- BUGB 349 - Legal Environment of Business (3)
- CISB 451 - Database Administration (3)
- Essential Learning - Natural Science (3)
- FINA 301 - Managerial Finance (3)
- General Elective (3)

### Senior Year, Spring Semester: 13 credits

- CISB 471 - Advanced Information Systems (3)
  - General Electives (10)
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