

M	IP	N	<p>Completion and certification of CSU will permit a student to transfer from Copper Mountain College to a campus in CSU system without the need, after transfer, to take additional lower-division general education courses. All courses must be completed with a grade of “C” or better. CERTIFICATION: GE Certification means that CMC has verified that a student has completed lower-division requirements for the CSU system. Certification is important, without certification students will be held to general education requirements specific to the CSU campus to which they transfer. GE certification is not required for transfer. Some high unit majors, for example engineering, may recommend prioritizing major preparation classes over GE certification. See a Counselor for more information. LEGEND: <i>Courses without prerequisites are italicized</i> *Courses that appear in multiple areas below, can only be counted in one area. +Transfer credit may be limited by UC, CSU or both. Consult with a counselor. M = Met/Completed IP = In Progress N = Need to Complete</p>		
AREA A ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING			1 course from A1, A2, A3 (9 semester units)		
			A1 ORAL COMMUNICATION (1 course, 3 semester units): SP 001 Interpersonal Communication (3) SP 004 Public Speaking (3) SP 015 Intercultural Communication (3)		
			A2 WRITTEN COMMUNICATION (1 course, 3 semester units): ENG 003A College Composition (3)		
			A3 CRITICAL THINKING (1 course 3 – semester units): ENG 001C Argumentation & Critical Thinking (3) (Effective Spring 2015) PHIL 010 <i>General Logic</i> (3) SOC 004 Sociological Analysis and Critical Thinking (3) SP 007 Decision-Making & Advocacy (3)		
AREA B SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING			1 course from B1, B2, B3 and B4 (9 semester units)		
			<p>B1 PHYSICAL</p> <p>A 001 <i>Descriptive Astronomy</i> (3) CH 005 Bio-Organic Chemistry (4) G 010 <i>The Earth Sciences</i> (4) A 001L <i>Descriptive Astronomy Lab</i> (1) CH 010A Organic Chemistry (5) (Effective Fall 2015) GEOG 001 <i>Physical Geography</i> (3) CH 001A General Chemistry (5) CH 010B Organic Chemistry (5) (Effective Fall 2015) PH 001 <i>Introductory Physics</i> (4) CH 001B General Chemistry (5) G 001 <i>Physical Geology</i> (4) PH 004A <i>Physics for Scientists & Engineers</i> (4) CH 003 <i>Introductory General Chemistry</i> (4) G 005 <i>Environmental Geology</i> (4) PH 004B <i>Physics for Scientists & Engineers</i> (4) PH 004C <i>Physics for Scientists & Engineers</i> (4)</p>		
			<p>B2 LIFE</p> <p>ANTH 001 <i>Introduction to Physical Anthropology</i> (3) BI 005 <i>Molecular & Cellular Biology</i> (5) (Effective Fall 2013) BI 022 <i>Human Anatomy</i> (4) BI 004 <i>Elements of Biology</i> (3) BI 006 <i>Biology of Organisms</i> (5) (Effective Fall 2013) BI 023 <i>Human Physiology</i> (5) BI 004L <i>Elements of Biology Lab</i> (1) BI 015 <i>General Microbiology</i> (5) NR 001 <i>Conservation of Natural Resources</i> (3)</p>		
			B3 LABORATORY Met with the completion of a laboratory course from B1 or B2 . Courses with 4 or more units include a lab which meets this requirement.		
			<p>B4 MATHEMATICS/QUANTITATIVE REASONING</p> <p>MATH 001A <i>Calculus</i> (4) MATH 002C <i>Ordinary Differential Equations</i> (4) MATH 012 <i>Pre-Calculus</i> (5) (Effective Fall 2013) MATH 014 <i>Statistical Methods</i> (4) MATH 001B <i>Calculus</i> (4) MATH 004 <i>Discrete Structures</i> (3) MATH 016 <i>Mathematics for Elementary School Teachers</i> (3) MATH 002A <i>Multivariate Calculus</i> (5) (Effective Fall 2014) MATH 005 <i>Trigonometry</i> (4) (Effective Spring 2015) MATH 002B <i>Linear Algebra</i> (4) (Effective Fall 2014) MATH 010 <i>College Algebra</i> (4) SOC 003 <i>Fundamentals of Statistics</i> (4)</p>		
AREA C ARTS & HUMANITIES			Minimum of 3 courses, with at least one course from C1, one course from C2, and the third course from C1 or C2 (9 semester units)		
			<p>C1 ARTS</p> <p>ART 003A <i>Introduction to Two-Dimensional Design</i> (3) ART 051 <i>Western Art History: Renaissance to Contemporary</i> (3) MUS 005 <i>History of Rock ‘N’ Roll</i> (3) ART 010 <i>Introduction to Art</i> (3) ART 052 <i>History of Art: Modern to Contemporary Art with a Global Perspective</i> (3) MUS 010 <i>Introduction to Music</i> (3) ART 033 <i>History of Photography</i> (3) ART 053 <i>Introduction to the Visual Arts of Non-western Cultures</i> (3) TA 001 <i>Introduction to Theatre</i> (3) ART 050 <i>History of Western Art: Prehistory - Middle Ages</i> (3) TA 002 <i>Acting I</i> (3)</p>		

AREA C ARTS & HUMANITIES

Minimum of 3 courses, with at least one course from C1, one course from C2, and the third course from C1 or C2 (9 semester units)

M	IP	N	C2 HUMANITIES
			<p>ASL 001 <i>Elementary American Sign Language I</i> (5) ASL 002 <i>Elementary American Sign Language II</i> (5) ASL 003 <i>Intermediate American Sign Language I</i> (4) ASL 004 <i>Intermediate American Sign Language II</i> (4) ENG 001B <i>Composition & Literature</i> (3) ENG 010A <i>American Literature I</i> (3) ENG 010B <i>American Literature II</i> (3) ENG 011A <i>Survey of English Literature: Old English to 18th Century</i> (3) ENG 011B <i>Survey of English Literature: Romantic-Postmodernism</i> (3)</p>
			<p>ENG 012A <i>World Literature I: Beg-1650</i> (3) ENG 012B <i>World Literature II: The Modern World (1650-Present)</i> (3) HIST 003* <i>History of World Civilizations I</i> (3) HIST 004* <i>History of World Civilizations II</i> (3) HIST 017* <i>U.S. History through Reconstruction</i> (3) HIST 018* <i>U.S. History from Reconstruction to Present</i> (3) PHIL 006 <i>Introduction to Philosophy</i> (3) PHIL 008 <i>Philosophy from Ancient Times to the Renaissance</i> (3) PHIL 012* <i>Religions of the World</i> (3)</p>
			<p>PHIL 013 <i>Perspectives on Death & Dying</i> (3) PHIL 014 <i>Introduction to Ethics</i> (3) SP 002 <i>Oral Interpretation of Literature</i> (3) (Effective Fall 2020) SPAN 001 <i>Elementary Spanish</i> (5) SPAN 002* <i>Elementary Spanish</i> (5) SPAN 003* <i>Intermediate Spanish</i> (4) SPAN 004* <i>Intermediate Spanish</i> (4) TA 001 <i>Introduction to Theatre</i> (3)</p>

ONE ADDITIONAL COURSE FROM C1 OR C2

AREA D SOCIAL & BEHAVIORAL SCIENCES

Minimum of 2 courses (6 semester units)

M	IP	N	D0 – Sociology & Criminology	D4 – Gender Studies	D8 – Political Science, Government and Legal Institutions
			<p>CJ 002 <i>Criminal Law</i> (3) (Effective Spring 2011) CJ 010 <i>Juvenile Delinquency</i> (3) (Effective Spring 2011) CJ 032 <i>Introduction to Criminology</i> (3) (Effective Spring 2011) ^EGSJ 014 <i>Introduction to Race and Ethnicity</i> (3) SOC 001 <i>Introduction to Sociology</i> (3) SOC 002 <i>Social Problems</i> (3) ^SOC 014 <i>Introduction to Race and Ethnicity</i> (3)</p>	<p>*PSY 010 <i>Introduction to Marriage & Family</i> (3) *SOC 010 <i>Introduction to Marriage & Family</i> (3)</p>	<p>PSY 005 <i>Behavioral & Social Science Research Methods</i> (4) SP 015 <i>Intercultural Communication</i> (3)</p>
			<p>^EGSJ 014 <i>Introduction to Race and Ethnicity</i> (3) SOC 001 <i>Introduction to Sociology</i> (3) SOC 002 <i>Social Problems</i> (3) ^SOC 014 <i>Introduction to Race and Ethnicity</i> (3)</p>	<p>D5 – Geography GEOG 002 <i>Cultural Geography</i> (3) GEOG 007 <i>World Regional Geography</i> (3) (Effective Fall 2015)</p>	<p>CJ 001 <i>Introduction to Criminal Justice</i> (3) PS 001 <i>Introduction to Government</i> (3) PS 002 <i>Introduction to Comparative Governments</i> (3) PS 004 <i>Introduction to International Relations</i> (3)</p>
			<p>D1 – Anthropology & Archeology ANTH 002 <i>Cultural Anthropology</i> (3) ANTH 003 <i>Archaeology: An Introduction to Prehistory</i> (3)</p>	<p>D6 – History ^EGSJ 020 <i>Native American Studies</i> (3) HIST 003 <i>History of World Civilizations I</i> (3) HIST 004 <i>History of World Civilizations II</i> (3) HIST 017 <i>U.S. History Through Reconstruction</i> (3) HIST 018 <i>U.S. History from Reconstruction to Present</i> (3) HIST 019 <i>California History</i> (3) ^HIST 020 <i>Native American Studies</i> (3)</p>	<p>PSY 001 <i>General Psychology</i> (3) PSY 003 <i>Developmental Psychology</i> (3) PSY 005 <i>Behavioral & Social Science Research Methods</i> (4) PSY 012 <i>Human Sexuality</i> (3) (Effective Fall 2013) PSY 033 <i>Personal & Social Adjustment</i> (3)</p>
			<p>D2 – Economics ECON 001 <i>Principles of Macroeconomics</i> (3) ECON 002 <i>Principles of Microeconomics</i> (3)</p>	<p>D7 – Interdisciplinary Social or Behavioral Science CD 010 <i>Child Development</i> (4) (Effective Fall 2010) CD 012 <i>Child, Family, & Community</i> (3) (Effective Fall 2012)</p>	<p>^EGSJ 014 and SOC 014; EGSJ 020 and HIST 020 are comparable courses. Therefore, credit is awarded for only one course.</p>
			<p>D3 – Ethnic Studies SOC 014 <i>Introduction to Race and Ethnicity</i> (3)</p>		

AREA E LIFELONG LEARNING AND SELF-DEVELOPMENT

Minimum of 3 semester units.

M	IP	N	CD 010 Child Development	KIN 001 Introduction to Kinesiology	PSY 033 Personal and Social Adjustment
			<p>CD 010 <i>Child Development</i> (4) (Effective Fall 2010) CD 044 <i>Child Health, Safety, & Nutrition</i> (3) (Effective Fall 2012) HS 001 <i>Personal and Community Health</i> (3) HS 013 <i>General Nutrition</i> (3)</p>	<p>(Effective Spring 2020)</p>	<p>(Effective Fall 2013)</p>
				<p>PHIL 013 <i>Perspectives on Death & Dying</i> (3) PSY 003 <i>Developmental Psychology</i> (3) ^PSY 010 <i>Introduction to Marriage & Family</i> (3) PSY 012 <i>Human Sexuality</i> (3)</p>	<p>^SOC 010 <i>Introduction to Marriage & Family</i> (3) STDV 065 <i>College and Personal Success</i> (3)</p>
					<p>(Effective Fall 2013)</p>
					<p>^PSY 010 and SOC 010 are comparable courses. Therefore, credit is awarded for only one course.</p>

AREA F ETHNIC STUDIES

Minimum of 3 semester units.

^EGSJ 020 *Native American Studies* (3)

^EGSJ 020 and HIST 020 are comparable courses. Therefore, credit is awarded for only one course.

CSU GRADUATION REQUIREMENTS - U.S. History & American Institutions

1 course from GROUP 1 and 1 course from GROUP 2

GROUP 1: PS 1 GROUP 2: HIST 17, 18

Mathematics ADT

Semester: Summer Year:

COURSE	UNITS
MATH 12 Pre-Calculus	5.00
TOTAL UNITS	5.00

Semester: Fall Year:

COURSE	UNITS
MATH 1A Calculus	4.00
ENG 3A College Composition	3.00
SP 4 Public Speaking	3.00
ART 10 Introduction to Art	3.00
TOTAL UNITS	13.00

Semester: Spring Year:

COURSE	UNITS
MATH 1B Calculus	4.00
PH 4A Engineering Physics	4.50
ENG 1C Argumentation	3.00
EGSJ 20 Native American Studies	3.00
TOTAL UNITS	14.50

Semester: Fall Year:

COURSE	UNITS
MATH 2A Multivariate Calculus	5.00
NR 1 Conserv. of Nat. Resources	3.00
PHIL 6 Intro to Philosophy	3.00
PS 1 Intro. to Government	3.00
TOTAL UNITS	14.00

Semester: Spring Year:

COURSE	UNITS
MATH 2B OR 2C	4.00
PHIL 13 Death & Dying	3.00
PSY 33 Personal/Social Adjstmnt	3.00
HIST 17 US History to Reconstruction	3.00
TOTAL UNITS	14.00

Semester: Year:

COURSE	UNITS
TOTAL UNITS	0.00

Notes: If student is transferring to UC may need foreign language.

MATHEMATICS

The Mathematics Program offers a full range of mathematics courses. In addition to coursework leading to transfer with a major in mathematics and support of the sciences and engineering, the program offers preparatory courses to prepare the student to take mathematics at a college level.



ASSOCIATE IN SCIENCE IN MATHEMATICS for transfer

The Associate in Science in Mathematics for Transfer degree is to prepare students for careers in mathematics and disciplines where mathematical skills are essential. The problem-solving skills acquired in mathematics are useful for a wide variety of jobs in fields such as physics, chemistry, engineering, data analysis, finance and business, biology, medicine, computer science, and teaching.

This degree includes the following completion requirements:

- (1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
 - (A) The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
 - (B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- (2) Obtainment of a minimum grade point average of 2.0.

Program Student Learning Outcomes

Upon successful completion of this program students will be able to:

1. Apply mathematical concepts to model and solve real-life situations. (Institutional SLO: Critical Thinking)
2. Demonstrate an ability to correctly apply mathematical principles using appropriate notation and terminology. (Institutional SLOs: Communication, Critical Thinking)
3. Create, interpret, and analyze visual representations of mathematical expressions. (Institutional SLOs: Communication, Critical Thinking)

Dept. /No.	Title	Units
Required Courses:		
MATH 001A	Calculus	4
MATH 001B	Calculus.....	4
MATH 002A	Multivariate Calculus.....	5
Restricted Electives:		
Choose one (1) course from the following:		
MATH 002B, MATH 002C	4
Choose one (1) course from the following. MATH 002B or MATH 002C may be taken if it has not been used to fulfill requirement above:		
MATH 002B, MATH 002C, MATH 004, MATH 014, PH 004A or CS 089	3-5
Required Courses		13
Restricted Electives		7-9
CSU or IGETC General Education Requirements		37-39
Transferable elective units as needed.		
MINIMUM TRANSFERABLE UNITS.....		60
Advisors: B. Berger, L. Christensen, J. Holley, C. Maclaughlin, A. Siciliano		