

**COPPER MOUNTAIN COLLEGE**  
**2021-2022**  
**CALIFORNIA STATE UNIVERSITY (CSU)**

M	IP	N	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. <b>All courses must be completed with a grade of "C" or better.</b> <b>CERTIFICATION:</b> 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. <b>See a Counselor for more information.</b> <b>LEGEND:</b> <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. <b>M = Met/Completed IP = In Progress N = Need to Complete</b>		
<b>AREA A ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING</b>			1 course from A1, A2, A3 (9 semester units)		
			<b>A1 ORAL COMMUNICATION</b> (1 course, 3 semester units): SP 001 Interpersonal Communication (3) SP 004 Public Speaking (3) SP 015 Intercultural Communication (3)		
			<b>A2 WRITTEN COMMUNICATION</b> (1 course, 3 semester units): ENG 003A College Composition (3)		
			<b>A3 CRITICAL THINKING</b> (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)		
<b>AREA B SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING</b>			1 course from B1, B2, B3 and B4 ( 9 semester units)		
			<b>B1 PHYSICAL</b> A 001 <i>Descriptive Astronomy</i> (3) CH 005 Bio-Organic Chemistry (4) G 010 <i>The Earth Sciences</i> (4) A 001L Descriptive Astronomy Lab (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 Introductory Physics (4) CH 001B General Chemistry (5) G 001 <i>Physical Geology</i> (4) PH 004A Physics for Scientists & Engineers (4) CH 003 Introductory General Chemistry (4) G 005 <i>Environmental Geology</i> (4) PH 004B Physics for Scientists & Engineers (4) PH 004C Physics for Scientists & Engineers (4)		
			<b>B2 LIFE</b> ANTH 001 Introduction to Physical Anthropology (3) BI 005 Molecular & Cellular Biology (5) (Effective Fall 2013) BI 022 Human Anatomy (4) BI 004 <i>Elements of Biology</i> (3) BI 006 Biology of Organisms (5) (Effective Fall 2013) BI 023 Human Physiology (5) BI 004L Elements of Biology Lab (1) BI 015 General Microbiology (5) NR 001 <i>Conservation of Natural Resources</i> (3)		
			<b>B3 LABORATORY</b> Met with the completion of a laboratory course from <b>B1</b> or <b>B2</b> . Courses with 4 or more units include a lab which meets this requirement.		
			<b>B4 MATHEMATICS/QUANTITATIVE REASONING</b> MATH 001A Calculus (4) MATH 002C Ordinary Differential Equations (4) MATH 012 <i>Pre-Calculus</i> (5) (Effective Fall 2013) MATH 014 Statistical Methods (4) MATH 001B Calculus (4) MATH 004 Discrete Structures (3) MATH 016 Mathematics for Elementary School Teachers (3) MATH 002A Multivariate Calculus (5) (Effective Fall 2014) MATH 005 Trigonometry (4) (Effective Spring 2015) MATH 002B Linear Algebra (4) (Effective Fall 2014) MATH 010 College Algebra (4) SOC 003 Fundamentals of Statistics (4)		
<b>AREA C ARTS &amp; HUMANITIES</b>			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)		
			<b>C1 ARTS</b> 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)		

**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 &amp; 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 18<sup>th</sup> 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 &amp; 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 &amp; Family</i> (3)                      *SOC 010 <i>Introduction to Marriage &amp; Family</i> (3)</p>	<p>PSY 005 <i>Behavioral &amp; 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><b>D5 – Geography</b>                      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><b>D1 – Anthropology &amp; Archeology</b>                      ANTH 002 <i>Cultural Anthropology</i> (3)                      ANTH 003 <i>Archaeology: An Introduction to Prehistory</i> (3)</p>	<p><b>D6 – History</b>                      ^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 &amp; Social Science Research Methods</i> (4)                      PSY 012 <i>Human Sexuality</i> (3) (Effective Fall 2013)                      PSY 033 <i>Personal &amp; Social Adjustment</i> (3)</p>
			<p><b>D2 – Economics</b>                      ECON 001 <i>Principles of Macroeconomics</i> (3)                      ECON 002 <i>Principles of Microeconomics</i> (3)</p>	<p><b>D7 – Interdisciplinary Social or Behavioral Science</b>                      CD 010 <i>Child Development</i> (4) (Effective Fall 2010)                      CD 012 <i>Child, Family, &amp; 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><b>D3 – Ethnic Studies</b>                      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, &amp; 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)                      PHIL 013 <i>Perspectives on Death &amp; Dying</i> (3)                      PSY 003 <i>Developmental Psychology</i> (3)                      ^PSY 010 <i>Introduction to Marriage &amp; Family</i> (3)                      PSY 012 <i>Human Sexuality</i> (3)</p>	<p>^SOC 010 <i>Introduction to Marriage &amp; Family</i> (3)                      STDV 065 <i>College and Personal Success</i> (3)                      (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

Chemistry ADT

Semester: FALL Year:

COURSE	UNITS
CH 1A General Chemistry	5.00
BI 4 Elements of Biology	3.00
ENG 3A College Composition	3.00
ART 3A 2-Dimensional Design	3.00
<b>TOTAL UNITS</b>	<b>14.00</b>

Semester: SPRING Year:

COURSE	UNITS
CH 1B General Chemistry	5.00
MATH 12 Pre-Calculus	6.00
SP 4 Public Speaking	3.00
<b>TOTAL UNITS</b>	<b>14.00</b>

Semester: FALL Year:

COURSE	UNITS
CH 10A Organic Chemistry	5.00
MATH 1A Calculus	4.00
SP 7 Decision Making/ Advocacy	3.00
<b>TOTAL UNITS</b>	<b>12.00</b>

Semester: SPRING Year:

COURSE	UNITS
CH 10B Organic Chemistry	5.00
MATH 1B Calculus	4.00
PH 4A Engineering Physics	4.00
<b>TOTAL UNITS</b>	<b>13.00</b>

Semester: FALL Year:

COURSE	UNITS
MATH 2A Multivariate Calculus	5.00
PH 4B Engineering Physics	4.00
PHIL 13 Death & Dying	3.00
PSY 33 Personal & Social Adjustment	3.00
<b>TOTAL UNITS</b>	<b>15.00</b>

Semester: SPRING Year:

COURSE	UNITS
HIST 17 U.S. History	3.00
PS 1 Intro. to Government	3.00
SPAN 1 Elementary Spanish	5.00
EGSJ 020 Native American Studies	3.00
<b>TOTAL UNITS</b>	<b>14.00</b>

# CHEMISTRY

A.S.-T DEGREE (X)

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## Description

The Associate in Science in Chemistry for Transfer, also called the Chemistry AS-T Degree, is designed to prepare students majoring in Chemistry for a seamless transfer with junior status to a CSU campus for completion of a baccalaureate degree in Chemistry. Upon successful completion of courses leading to the Chemistry AS-T Degree, the student will be able to demonstrate that they understand fundamental General and Organic Chemistry concepts, skills, and applications, sufficient to attain upper division status in Chemistry at any CSU institution.

This Chemistry AS-T degree requires students to meet both of the following requirements:

1. Completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:

- The Intersegmental GE Transfer Curriculum (IGETC) or the California State University GE-Breadth Requirements (CSU GE-B); and
- A minimum of 18 semester units in a major or area of emphasis. All courses in the major or area of emphasis must be completed with a grade of "C" or better.

2. Obtainment of a minimum grade point average of 2.0. There are no additional graduation requirements. Students are advised to consult with a counselor to verify transfer requirements.

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## Program Learning Outcomes

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

1. Develop a world view that incorporates the role of chemistry in modern society. (Maps to ILO 3 & 4.)
2. Integrate fundamental physical concepts and principles to other science disciplines (Maps to ILO 2 & 5.)
3. Solve novel, not previously seen, problems by employing analytical reasoning and physical concepts to formulate representative soluble chemical models. (Maps to ILO 2 & 5.)
4. Demonstrate proficiency in standard chemistry laboratory techniques commonly acquired in lower-division course work. (Maps to ILO 1 & 5.)
5. Collaboratively analyze representative chemical data using problem-solving learning and communicate findings in written and oral form. (Maps to ILO 1 & 5.)
6. Develop an awareness of the current limitations of chemistry and their own knowledge, detect pseudoscience, and demonstrate a strong work ethic, including integrity, a sense of responsibility, and team working skills. (Maps to ILO 1, 2, 3, 4, & 5.)

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## Degree Requirements:

Required courses		Credit Hours: (36 Required)
CH001A	General Chemistry	5
CH001B	General Chemistry	5
CH010A	Organic Chemistry	5
CH010B	Organic Chemistry	5
PH004A	Physics for Scientists and Engineers	4
PH004B	Physics for Scientists and Engineers	4
MATH001A	Calculus	4
MATH001B	Calculus	4

**Total: 36**

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