

**COPPER MOUNTAIN COLLEGE**  
**2021-2022**  
**ASSOCIATE DEGREE NON-TRANSFER**

M	IP	N	<p>The pattern below meets the associate general education degree requirements for graduation from Copper Mountain College. A total of 60 degree applicable units, including major requirements and General Education requirements are required for the Associate Degree. At least a 2.0 (“C”) grade point average is required in all courses applicable to the associate degree. All courses that count toward the Associate Degree major or area of emphasis must be satisfactorily completed with grades of A, B, C, or P. (Title 5, 55063).</p> <p><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</b> = Met/Completed <b>IP</b> = In Progress <b>N</b> = Need to Complete</p>		
			<b>AREA C1 NATURAL SCIENCES</b>		
			3 Semester units minimum		
			A 001 <i>Descriptive Astronomy</i> (3) A 001L <i>Descriptive Astronomy Lab</i> (1) ANTH 001 <i>Introduction to Physical Anthropology</i> (3) BI 004 <i>Elements of Biology</i> (3) BI 004L <i>Elements of Biology Lab</i> (1) BI 005 <i>Molecular &amp; Cellular Biology</i> (5) (Effective Fall 2013) BI 006 <i>Biology of Organisms</i> (5) (Effective Fall 2013)	BI 015 <i>General Microbiology</i> (5) BI 022 <i>Human Anatomy</i> (4) BI 023 <i>Human Physiology</i> (5) CH 001A <i>General Chemistry</i> (5) CH 001B <i>General Chemistry</i> (5) CH 003 <i>Introductory General Chemistry</i> (4) G 001 <i>Physical Geology</i> (4)	G 005 <i>Environmental Geology</i> (4) G 010 <i>The Earth Sciences</i> (4) GEOG 001 <i>Physical Geography</i> (3) <b>NR 001 <i>Conservation of Natural Resources</i> (3)</b> PH 001 <i>Introductory Physics</i> (4) PH 004A <i>Physics for Scientists &amp; Engineers</i> (4) PH 004B <i>Physics for Scientists &amp; Engineers</i> (4) PH 004C <i>Physics for Scientists &amp; Engineers</i> (4)
			<b>AREA C2 SOCIAL &amp; BEHAVIORAL SCIENCES</b>		
			3 Semester units minimum		
			ANTH 002 <i>Cultural Anthropology</i> (3) ANTH 003 <i>Archaeology: An Introduction to Prehistory</i> (3) CD 010 <i>Child Development</i> (4) (Effective Fall 2010) CD 012 <i>Child, Family, &amp; Community</i> (3) (Effective Fall 2012) ^CD 074 <i>Living and Teaching in a Diverse Society</i> (3) (Effective Fall 2021) CJ 001 <i>Introduction to Criminal Justice</i> (3) 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) ECON 001 <i>Principles of Macroeconomics</i> (3) ECON 002 <i>Principles of Microeconomics</i> (3) ^EGSJ 014 <i>Introduction to Race and Ethnicity</i> (3) ^EGSJ 020 <i>Native American Studies</i> (3) ^EGSJ 074 <i>Living and Teaching in a Diverse Society</i> (3)	GEOG 002 <i>Cultural Geography</i> (3) GEOG 007 <i>World Regional Geography</i> (3) (Effective Fall 2015) HS 001 <i>Personal and Community Health</i> (3) HS 013 <i>General Nutrition</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) PHIL 013 <i>Perspectives on Death &amp; Dying</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) PSY 001 <i>General Psychology</i> (3) PSY 003 <i>Developmental Psychology</i> (3) PSY 012 <i>Human Sexuality</i> (3) (Effective Fall 2013) <b>PSY 033 <i>Personal &amp; Social Adjustment</i> (3)</b> SOC 001 <i>Introduction to Sociology</i> (3) SOC 002 <i>Social Problems</i> (3) *SOC 010 <i>Introduction to Marriage &amp; Family</i> (3) ^SOC 014 <i>Introduction to Race and Ethnicity</i> (3) STDV 65 <i>College and Personal Success</i> (3) (Effective Fall 2018)  ^ CD 074 and EGJS 074; HIST 020 and EGJS 020; SOC 014 and EGJS 014 are comparable courses. Therefore, credit is awarded for only one course.

<b>AREA C3 HUMANITIES</b>			
3 Semester units minimum			
M	IP	N	
			<p>ART 003A <i>Introduction to Two-Dimensional Design</i> (3)</p> <p>ART 010 <i>Introduction to Art</i> (3)</p> <p>ART 033 <i>History of Photography</i> (3)</p> <p>ART 050 <i>History of Western Art: Prehistory - Middle Ages</i> (3)</p> <p>ART 051 <i>Western Art History: Renaissance to Contemporary</i> (3)</p> <p>ART 052 <i>History of Art: Modern to Contemporary Art with a Global Perspective</i> (3)</p> <p>ART 053 <i>Intro to the Visual Arts of Non-western Cultures</i> (3)</p> <p>ASL 001* <i>Elementary American Sign Language I</i> (5)</p> <p>ASL 002* <i>Elementary American Sign Language II</i> (5)</p> <p>ASL 003* <i>Intermediate American Sign Language I</i> (4)</p> <p>ASL 004* <i>Intermediate American Sign Language II</i> (4)</p>
			<p>ENG 001B <i>Composition &amp; Literature</i> (3)</p> <p>ENG 010A <i>American Literature I</i> (3)</p> <p>ENG 010B <i>American Literature II</i> (3)</p> <p>ENG 011A <i>Survey of English Literature: Old English to 18<sup>th</sup> Century</i> (3)</p> <p>ENG 011B <i>Survey of English Literature: Romantic-Postmodernism</i> (3)</p> <p>ENG 012A <i>World Literature I: Beg-1650</i> (3)</p> <p>ENG 012B <i>World Literature II: The Modern World (1650-Present)</i> (3)</p> <p>HIST 003* <i>History of World Civilizations I</i> (3)</p> <p>HIST 004* <i>History of World Civilizations II</i> (3)</p> <p>HIST 017* <i>U.S. History Through Reconstruction</i> (3)</p> <p>HIST 018* <i>U.S. History from Reconstruction to Present</i> (3)</p>
			<p>MUS 005 <i>History of Rock 'N' Roll</i> (3)</p> <p>MUS 010 <i>Introduction to Music</i> (3)</p> <p>PHIL 006 <i>Introduction to Philosophy</i> (3)</p> <p>PHIL 008 <i>Philosophy from Ancient Times to the Renaissance</i> (3)</p> <p>PHIL 012* <i>Religions of the World</i> (3)</p> <p>PHIL 013 <i>Perspectives on Death &amp; Dying</i> (3)</p> <p>PHIL 014 <i>Introduction to Ethics</i> (3)</p> <p>SPAN 001 <i>Elementary Spanish</i> (5)</p> <p>SPAN 002* <i>Elementary Spanish</i> (5)</p> <p>SPAN 003* <i>Intermediate Spanish</i> (4)</p> <p>SPAN 004* <i>Intermediate Spanish</i> (4)</p> <p>TA 001 <i>Introduction to Theatre</i> (3)</p> <p>TA 002 <i>Acting I</i> (3)</p>
<b>AREA C4-LANGUAGE AND RATIONALITY</b>			
1 course from A, 1 course from B			
			<b>A ENGLISH COMPOSITION</b> (1 course 3 – semester units): ENG 003A <i>College Composition</i> (3)
			<b>B COMMUNICATION, MATHEMATICS, AND CRITICAL THINKING</b> (1 course 3 – semester units): MATH 040 <i>Intermediate Algebra</i> (4) or higher; BUMA 012 <i>Personal Finance</i> (3)
<b>AREA C5 TRADITIONS AND CULTURES</b>			
Minimum of 3 semester units.			
			<p>ANTH 001 <i>Introduction to Physical Anthropology</i> (3)</p> <p>ANTH 002 <i>Cultural Anthropology</i> (3)</p> <p>ART 010 <i>Introduction to Art</i> (3)</p> <p>ASL 001,002* <i>Elementary American Sign Language</i> (5)(5)</p> <p>ASL 003, 004* <i>Intermediate American Sign Language</i> (4)(4)</p> <p>^CD 074 <i>Living and Teaching in a Diverse Society</i> (3) (Effective Fall 2021)</p> <p>CJ 005A <i>Community &amp; the Justice System</i> (3)</p> <p>ENG 001B <i>Composition &amp; Literature</i> (3)</p> <p>ENG 010A <i>American Literature I</i> (3)</p> <p>ENG 010B <i>American Literature II</i> (3)</p> <p>ENG 011A <i>Survey of English Literature: Old English to 18<sup>th</sup> Century</i> (3)</p> <p>ENG 011B <i>Survey of English Literature: Romantic Through Postmodernism</i> (3)</p> <p>ENG 012A <i>World Literature I: Beginnings Through 1650</i> (3)</p>
			<p>ENG 012B <i>World Literature II: The Modern World (1650-Present)</i> (3)</p> <p>^EGSJ 014 <i>Introduction to Race and Ethnicity</i> (3)</p> <p>^EGSJ 020 <i>Native American Studies</i> (3)</p> <p>^EGSJ 074 <i>Living and Teaching in a Diverse Society</i> (3)</p> <p>GEOG 002 <i>Cultural Geography</i> (3)</p> <p>HS 001 <i>Personal &amp; Comm. Health</i> (3)</p> <p>HIST 003 <i>History of World Civilizations I</i> (3)</p> <p>HIST 004 <i>History of World Civilizations II</i> (3)</p> <p>HIST 019 <i>California History</i> (3)</p> <p>^HIST 020 <i>Native American Studies</i> (3)</p> <p>MUS 005 <i>History of Rock 'N' Roll</i> (3)</p> <p>PHIL 006 <i>Introduction to Philosophy</i> (3)</p> <p>PHIL 012 <i>Religions of the World</i> (3)</p> <p>PHIL 013 <i>Perspectives on Death &amp; Dying</i> (3)</p> <p>PHIL 014 <i>Introduction to Ethics</i> (3)</p>
			<p>PS 004 <i>Introduction to International Relations</i> (3)</p> <p>PSY 01 <i>General Psychology</i> (3)</p> <p>^PSY 010 <i>Introduction to Marriage and Family</i> (3)</p> <p>PSY 012 <i>Human Sexuality</i> (3)</p> <p>PSY 033 <i>Personal and Social Adjustment</i> (3) (Effective Fall 2018)</p> <p>SOC 001 <i>Introduction to Sociology</i> (3)</p> <p>SOC 002 <i>Social Problems</i> (3)</p> <p>SOC 004 <i>Sociological Analysis &amp; Critical Thinking</i> (3)</p> <p>^SOC 010 <i>Introduction to Marriage &amp; Family</i> (3)</p> <p>^SOC 014 <i>Introduction to Race &amp; Ethnicity</i> (3)</p> <p>SPAN 001, 002 <i>Elementary Spanish</i> (5) (5)</p> <p>SP 001 <i>Interpersonal Communication</i> (3)</p> <p>SP 002 <i>Oral Interpretation of Literature</i> (3)</p> <p>SP 015 <i>Intercultural Communication</i> (3)</p> <p>And all Languages other than English courses</p> <p>^ CD 074 and EGJS 074; HIST 020 and EGSJ 020; SOC 014 and EGSJ 014; PSY 10 and SOC 10 are comparable courses. Therefore, credit is awarded for only one course.</p>



# AUTOMOTIVE TECHNOLOGY

The Automotive Technology Program curriculum is designed to meet the requirements and standards set forth by the NSE Education Foundation and to provide the automotive student with a solid foundation in the fundamentals of state of the art automotive systems theory and repair practices. This approach is intended to provide the student with the minimum training necessary to gain an entry-level position within the automotive service and/or repair industry.

## ASSOCIATE IN SCIENCE IN AUTOMOTIVE TECHNOLOGY

with emphasis on employment preparation

### Program Student Learning Outcomes

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

1. Identify the components, perform service on, and describe the construction features, theory and/or operating principles related to the eight general automotive areas of ASE certification.\* (Institutional SLOs: Information Competency) \*Dependent upon restrictive electives chosen.
2. Use various automotive test equipment: to diagnose vehicle component failures, determine the logical cause of the failure through complete and accurate analysis (either mechanical or electrical), evaluate and discuss findings, prepare a written estimate of needed system repairs, estimate the related costs, and perform and verify correct repairs in all eight general automotive areas of ASE certification.\* (Institutional SLOs: Communication Skills, Critical Thinking, and Information Competency) \*Dependent upon restrictive electives chosen.
3. Utilize applicable vehicle service information to locate pertinent procedures and specifications related to the inspection, service, diagnosis, repair, adjustment of all automotive systems, and document the services. (Institutional SLOs: Information Competency)
4. Demonstrate proper use and safety practices associated with common automotive technician hand tools, precision measuring tools, power equipment, standard automotive laboratory equipment, and repair and service associated with electrical, hydraulic and mechanical systems. (Institutional SLOs: Information Competency)
5. Work independently and in groups to diagnose, service, repair, and maintain vehicles. (Institutional SLOs: Personal Development)
6. Exhibit professionalism, sensitivity, tact, integrity, and appropriate communication skills when handling customer/co-worker needs, complaints, questions, and special challenges. (Institutional SLOs - Personal Development, Ethics, Communication Skills)

Dept. /No.	Title	Units
Required Courses:		
AUTO 004	Principles of Automotive Technology .....	4
AUTO 018	Engine Performance I .....	4
AUTO 020	Automotive Electrical Systems I .....	4
AUTO 021	Automotive Electrical Systems II .....	4
AUTO 029	Engine Performance II .....	4
AUTO 035	Automotive Steering, Suspension and Alignment ....	4
AUTO 036	Automotive Brake Systems .....	4
AUTO 044	Automotive Engine Repair .....	4
AUTO 045	Automatic Transmissions and Transaxles	
	or	
AUTO 065	Manual Transmissions & Transaxles.....	4
AUTO 028	Introduction to Hybrid & Electric Vehicle Technology	
	or	
AUTO 078	Hybrid and Alternative Fuel Vehicles.....	3-4
BUMA 010	Introduction to Business .....	3
Restricted Electives - choose at least three (3) units from the following:		
AUTO 027, AUTO 060, CIS 070A, AUTO 045 or AUTO 065, and		
AUTO 028 or AUTO 078 .....		3-5
Required Courses .....		42-43
Restricted Electives .....		3-5
CMC General Education Requirement .....		18
MINIMUM DEGREE UNITS .....		63
Advisor:	P. Friedt	