

ENGINEERING - MECHANICAL

Associate of Science degree



Program and Career Description:

Most careers in engineering require a bachelor's degree or higher so the Associate of Science in Mechanical Engineering is designed for students wanting to complete the first two years of the bachelor's degree in a community college setting. Our students work closely with science and math faculty and have ample access to science and computer labs. Below are a few examples of career and salary estimates for engineering. Please note that this pathway requires 66 credit hours and recommends one summer semester. Students will need to meet the requirements for MATH 1910 before their freshman fall semester.

Career	Beginning Salary with BS degree	Experienced Salary Median
Mechanical Engineers	\$55,340	\$76,430
Electrical Engineers*	\$58,640	\$86,210

*This pathway does not include all the required coursework for the Electrical Engineering A.S. Degree. Check with the transfer university and the University Center for transfer articulations with B.S. programs for advice on course selection.

Career and salary information taken from www.jobs4tn.gov. Check out this web site for additional information about education requirements and preferred work styles and abilities for these careers. Salaries are not guaranteed.

Transfer Options

Per the *Complete College Tennessee Act of 2010*, this degree will be transferable to any of the following universities offering a Baccalaureate degree in this major:

- Austin Peay State University
- East Tennessee State University
- Middle Tennessee State University
- Tennessee State University
- Tennessee Tech University
- University of Memphis
- University of Tennessee, Chattanooga
- University of Tennessee, Knoxville
- University of Tennessee, Martin

Articulation agreements exist between other private and non-TN public institutions. These agreements are available at www.columbiastate.edu/admissions/transfer-information.



ENGINEERING - MECHANICAL

Major in Tennessee Transfer Pathway with Emphasis in Mechanical Engineering (A.S.)

Program Requirements

Students may be required to take additional Learning Support courses.

Communications Requirement

ENGL 1010, 1020
SPCH 1010 or SPCH 1030

History Requirement (Take 2 courses)

HIST 1110, 1120, 2010, 2020, 2030

Humanities/Fine Arts (Take 3 courses -- one must be a literature course)

ART 1030
ARTH 2010, 2020
ENGL 2015
HUM 1130, 1131
MUS 1030
PHIL 1030, 2030, 2033
THEA 1030
Literature Options: ENGL 2130, 2230, 2310, 2320, 2920

Natural Sciences Requirement

PHYS 2110, 2120

Mathematics Requirement

MATH 1910

Social/Behavioral Sciences (Take 2 courses)

ANTH 1200, 1300
ECON 2010, 2020
GEOG 2010
PHED 2120
POL 201
POLS 1030, 1501, 2010
PSYC 1030, 2130
SOC 1010, 1020, 2010

Major Required Courses

CHEM 1110
ENGR 2110, 2120
MATH 1920, 2010, 2110, 2120

If you have completed TN eCampus courses, run a degree audit from the student tab in myChargerNet to determine how these courses apply to this program.

Requirements for Graduation include:

- earning 25% of total program credits in residence at Columbia State.
- cumulative GPA must be 2.0.
- taking the Exit Exam.

For more information contact:

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Sample Academic Plan

Students requiring MATH 1130 and MATH 1730 should take these courses prior to beginning the following pathway to ensure timely completion.

First Year – Fall Semester

___ ENGL 1010	Composition I	3
___ MATH 1910*	Calculus & Analytic Geometry I	4
___ History Requirement		3
___ PHYS 2110	Physics I	4
___ COLS 101	Columbia State College Success	1
		15

First Year – Spring Semester

___ ENGL 1020	Composition II	3
___ MATH 1920	Calculus & Analytic Geometry II	4
___ History Requirement		3
___ PHYS 2120	Physics II	4
		14

First Year – Summer Semester

___ Literature Requirement		3
___ SPCH 1010	Fundamentals of Speech Communication or	
___ SPCH 1030	Argumentation and Debate	3
		6

Second Year – Fall Semester

___ MATH 2110	Calculus & Analytic Geometry III	4
___ ENGR 2110	Statics	3
___ CHEM 1110	General Chemistry I	4
___ Humanities/Fine Arts		3
___ Social/Behavioral Science		3
		17

Second Year – Spring Semester

___ MATH 2010	Linear Algebra	3
___ MATH 2120	Differential Equations	3
___ ENGR 2120	Dynamics	3
___ Humanities/Fine Arts		3
___ Social/Behavioral Science		3
		15

TOTAL CREDIT HOURS 67

*Critical Course - Higher achievement in identified courses is predictive of graduation success.

The Associate of Science Civil Mechanical Major requires 67 college-level credits. This is a transfer program which was granted an exception to the 60-hour limit requirement reached through Tennessee Board of Regents consensus. The exception was granted due to additional hours needed to adequately cover the necessary learning outcomes in the program. Some courses have prerequisites and corequisites. See the Columbia State Catalog for more information.