CIVIL ENGINEERING
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 Civil 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.

<table>
<thead>
<tr>
<th>Career</th>
<th>Entry-Level Education</th>
<th>Entry-Level Pay</th>
<th>Median Pay</th>
<th>Experienced Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Engineers</td>
<td>Bachelor’s degree</td>
<td>$61,520</td>
<td>$86,715</td>
<td>$111,910</td>
</tr>
<tr>
<td>Electrical and Electronics</td>
<td>Bachelor’s degree;</td>
<td>$59,190</td>
<td>$80,000</td>
<td>$101,820</td>
</tr>
<tr>
<td>Engineers</td>
<td>MS or PhD for some jobs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Career and salary information taken from JOBS4TN.GOV. Check out this website for additional information about job descriptions, education requirements and abilities, and supply and demand for these careers. For additional information from a national perspective, go to Bureau of Labor Statistics, U. S. Department of Labor on the internet at www.bls.gov. Visit the Occupational Outlook Handbook on this website. Salaries are not guaranteed.

Transfer Options
This program is a Tennessee Transfer Pathway (TTP) major. A student who completes the associates degree in this major is guaranteed that all required community college courses will be accepted in this major at the transfer institution. To see which four-year institutions offer this TTP major and guarantees a seamless transfer, visit the Tennessee Transfer Pathway website at www.tntransferpathway.org.

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

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

### Program Requirements

Students may be required to take additional Learning Support courses.

#### Communications Requirement
- COMM 2025 or COMM 2055
- ENGL 1010, 1020

#### History Requirement (Take 2 courses)
- HIST 2010, 2020, 2030, 2310, 2320

#### Humanities/Fine Arts (Take 3 courses -- one must be a literature course)
- ART 1035, 2000, 2020
- ENGL 2160, 2860
- HUM 1010, 1020
- MUS 1030
- PHIL 1030, 1040, 2200
- THEA 1030
- Literature Options: ENGL 2055, 2130, 2235, 2310, 2320

#### Natural Sciences Requirement
- PHYS 2110, 2120

#### Mathematics Requirement
- MATH 1910

#### Social/Behavioral Sciences (Take 2 courses)
- ANTH 1230, 1430
- ECON 2100, 2200
- GEOG 2010
- MCOM 1110
- PHED 2120
- POLS 1010, 1030, 2025, 2035
- PSYC 1030, 2130
- SOCI 1010, 1040, 2010

#### Major Required Courses
- CHEM 1110
- COLS 101
- ENGR 2110, 2120
- MATH 1920, 2110, 2120
- MATH 2010 or MATH 2050

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.

### 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 English Composition I 3
- MATH 1910* Calculus I 4
- History Requirement 3
- PHYS 2110 Calculus-Based Physics I 4
- COLS 101 Columbia State College Success 1

#### First Year – Spring Semester

- ENGL 1020 English Composition II 3
- MATH 1920 Calculus II 4
- History Requirement 3
- PHYS 2120 Calculus-Based Physics II 4

#### First Year – Summer Semester

- Literature Requirement 3
- COMM 2025 Fundamentals of Communication or COMM 2055 Argumentation and Debate 3

#### Second Year – Fall Semester

- MATH 2110 Calculus III 4
- ENGR 2110 Statics 3
- CHEM 1110 General Chemistry I 4
- Humanities/Fine Arts 3
- Social/Behavioral Science 3

#### Second Year – Spring Semester

- MATH 2010 Introduction to Linear Algebra or MATH 2050 Calculus-Based Probability and Statistics 3
- MATH 2120 Differential Equations 3
- ENGR 2120 Dynamics 3
- Humanities/Fine Arts 3
- Social/Behavioral Science 3

**TOTAL CREDIT HOURS 67**

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

The Associate of Science Civil Engineering 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.

For more information contact:
- Dr. Ryan Badeau at rbadeau@columbiastate.edu or 615.465.5752
- Barbara Cowan at bcowan2@columbiastate.edu or 931.540.2703
- Science, Technology & Math Division Office at 931.540.2710

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