

CONSTRUCTION ENGINEERING TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE

This program prepares students for the construction industry with positions in scheduling, estimating, sales & marketing, assistant project management, assistant field superintendents, and project engineers. The program includes comprehensive study in contract documents, construction materials & methods, scheduling, and estimating for residential and light commercial building. Graduates can be employed with construction contractors, engineering/architectural firms, building material suppliers, public building agencies, or they can transfer into university programs in construction management.

Program contact: Learn more

This degree program contains one or more embedded certificates which will be automatically awarded when the certificate requirements are completed. If you do not want to receive the embedded certificate(s), please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more about how certificate credits apply to the related degree.

Program Admission Requirements

- High School Diploma/GED.
- ENG-0995 Applied College Literacies or appropriate score on English placement test.
- MATH-0965 Intermediate Algebra, with "C" or higher, or appropriate score on Math placement test.
- Complete the following:
 - CNST-1281 Construction Engineering Orientation
 - CNST-1731 Construction Print Reading
 - IT-1090 Computer Applications

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Recognize purpose for building information modeling within building design.
2. Monitoring project work for compliance with contract documents.
3. Perform basic surveying tasks including layout of vertical and horizontal alignments, comprehend the underlying mathematical principles and apply the information obtained.
4. Interpret the intent of plans and specifications as they relate to the various aspects of the construction project from the perspective of the owner, design professional, construction manager, and contractor and have the associated computer proficiencies.
5. Apply the principles of project management process, innovation and technology to effectively identify characteristics of project delivery systems, perform contract document tasks, and implement project processes for successful project completion.

6. Using critical path method to organize project requirements into logical inter-related groupings that represent consensus of project stakeholders to develop a management tool that communicates project status using industry standard technology.
7. Apply sound estimating and cost management principles, using industry standard computer technology to develop and maintain an organized management tool that effectively projects and communicates the projects financial status.
8. Use critical thinking skills to anticipate, identify, respond to, and resolve problems.
9. Use verbal and written skills with technological tools to clearly and effectively communicate, using appropriate protocols to project stakeholders.

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.

Suggested Semester Sequence

First Semester		Credit Hours
CNST-1281	Construction Engineering Orientation	3
CNST-1731	Construction Print Reading	3
MATH-1530	College Algebra	4
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
Select one of the following:		3
IT-1090	Computer Applications	
IT-109H	Honors Computer Applications	
Credit Hours		16
Second Semester		Credit Hours
CNST-1410	Architectural CAD I	3
CNST-1750	Construction Safety	3
CNST-2131	Construction Methods and Materials	3
MATH-1540	Trigonometry	3
PHYS-1210	College Physics I	4
Credit Hours		16
Third Semester		Credit Hours
CNST-2201	Introduction to Building Information Modeling	3
CNST-2210	Mechanical and Electrical Systems	3
CNST-2990	Construction Estimating & Cost Analysis	3
ENG-2151	Technical Writing	3
MET-1601	Technical Statics	3
Credit Hours		15
Fourth Semester		Credit Hours
CNST-2330	Construction Scheduling	3
CNST-xxxx	CNST Elective ¹	3
MET-2200	Strength of Materials	3

Arts and Humanities/Social and Behavioral Sciences requirement	3
Select one of the following:	3-4
ACCT-1020 Applied Accounting	
ACCT-1311 Financial Accounting ²	
Credit Hours	15-16
Total Credit Hours	62-63

¹ CNST-1510 Green Building & Sustainability I recommended for university transfer

² ACCT-1311 Financial Accounting recommended for university transfer.