

Civil Engineering Technology

Degree Type

Associate of Science

NHTI's Civil Engineering Technology degree program combines civil engineering and technology theory with a solid foundation in math and science. You'll learn the fundamentals of CVET, teamwork, and presentations through hands-on activities in NHTI labs. You'll also solve design and engineering problems and learn about the industry practices and culture through our unique guest speakers program. Skills include how to:

- Produce engineering documents using CAD software
- Perform standard field and laboratory tests on materials typically used in civil engineering technology
- Estimate material quantities for technical projects

Do you have questions? Contact Liaquat Khan, department chair, at lkhan@ccsnh.edu or 603-271-6484 x4221.

Career Information

Major specialties within civil engineering are structural, water resources, environmental, construction (including construction management), transportation, and geotechnical engineering. Graduates interested in management or upper-level engineering careers in the field can pursue bachelor's degrees in civil engineering, CVET, construction engineering, surveying and mapping, or construction management. Students who complete this program can enter into the following professions (not an inclusive list): civil engineering technologists/ technicians, cartographer, land surveyors, and CAD operators.

Admission Requirements

Apply for this program today on our [Admissions page](#) with step-by-step instructions and enrollment pathways build just for you!

Applicants are required to have at least three years of college preparatory math (Algebra I, Algebra II, and Geometry) with minimum grades of C or higher. It is recommended that applicants have satisfactorily completed high school courses in Chemistry and Physics.

Curriculum

First Year

Fall Semester

Item #	Title	Lecture Hours	Lab Hours	Credits
ARET103C	Architectural Graphics and Sketching	2	2	3
ARET120C	Materials and Methods of Construction	4	0	4
CHEM105C	Chemistry	3	2	4
MATH124C	College Algebra	4	0	4
PHYS133C	Physics I (Algebra-based)	3	2	4
	Subtotal Credits	16	6	19

Spring Semester

Item #	Title	Lecture Hours	Lab Hours	Credits
ARET104C	Architectural Design Studio I	2	2	3
ARET150C	Statics and Strength of Materials	3	2	4
ARET192C	Revit Architecture	3	0	3
ENGL101C	English Composition	4	0	4
MATH140C	Precalculus	4	0	4
	Subtotal Credits	16	4	18

Second Year

Fall Semester

Item #	Title	Lecture Hours	Lab Hours	Credits
CVET201C	Civil CAD	2	2	3
CVET220C	Surveying	2	3	3
CVET240C	Timber and Steel Design	3	2	4
	ENGL 125C or COMM 125C	3		3
MATH205C	Calculus I	4	0	4
	Humanities/Fine Arts/Language elective	3	0	3-4
	Subtotal Credits	17-18	7	20-21

Spring Semester

Item #	Title	Lecture Hours	Lab Hours	Credits
CVET202C	Soil Mechanics and Foundation Design	2	2	3
CVET235C	Reinforced Concrete Design	2	3	3
CVET245C	Hydrology/Drainage Design	3	0	3
CVET297C	Highway Design	3	2	4
	Social Science elective	3	0	3
	Subtotal Credits	13	7	16
	Total Credits			73-74

Additional Information

Program Learning Outcomes

Students receive an associate in science in CVET upon successful completion of this program.

ETAC of ABET Requirements

- An ability to apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline
- An ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline
- An ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments and an ability to identify and use appropriate technical literature
- An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results
- An ability to function effectively as a member of a technical team

Program Educational Outcomes: The CVET program educational objectives (PEOs) are broad statements that support the mission of the program and NHTI. The program's mission reflects on the following PEOs. Graduates:

- Are effective lifelong learners and demonstrate continuing professional development.
- Demonstrate the ability to solve problems and participate in a team-based environment.
- Demonstrate effective communication and interpersonal skills.
- Exhibit an active and effective civic life with respect for diversity and local and global issues.

ETAC of ABET's Program Criteria for Civil Engineering Technology and Similarly Named Programs a-d.

- Utilization of principles, hardware, and software that are appropriate to produce drawings, reports, quantity estimates, and other documents related to civil engineering
- Performance of standardized field and laboratory tests related to civil engineering
- Utilization of surveying methods appropriate for land measurement and/or construction layout
- Application of fundamental computational methods and elementary analytical techniques in subdisciplines related to civil engineering

Program Mission Statement

To graduate competent, skilled, and adequately equipped students who would be productive members of the profession and the community.

Student Testimonials

I wasn't really sure what direction I wanted to go. I figured NHTI was a good place to test the water, because it wasn't as expensive as UNH or one of those big schools. I had taken a lot of engineering courses through Project Running Start, so that sort of steered me toward engineering. I liked all the teachers, and enjoyed the classes. With AET, there are not a ton of Gen Ed classes; most of your classes are engineering-related. I took the state engineering test and was able to pass it. It's really meant for 4-year programs and only has a 66% pass rate, so that really shows you that the quality of the education here at NHTI is substantial. The department always gets students job opportunities. I'm working as a drafter now, doing a lot of 3D work. And starting this fall my employer is going to help pay for me to go to UNH for my bachelor's degree.

– Kurt Jackman, AET '12, CVET '14