BS IN CONSTRUCTION ENGINEERING TECHNOLOGY

overview

The Bachelor of Science in Construction Engineering Technology at UToledo is an ABET-accredited program that prepares graduates for careers in the construction, operation, and maintenance of the built environment and infrastructure. The program emphasizes both construction management (e.g., estimating, contracts, project management) and civil engineering concepts applicable to construction.

Graduates gain skills in using construction documents, specifying materials and methods, performing cost analysis, and managing construction activities. They can pursue careers in five key sectors:

- Construction Management – Most graduates work with contractors or management firms, overseeing construction projects from start to finish.
- Consulting – Focuses on designing construction documents and coordinating the design process, often assisting project owners during construction.
- Government Agencies – Involves managing public projects, setting design standards, and maintaining infrastructure at various governmental levels.
- Materials Supply – Involves technical sales, logistics, and product development for construction materials.
- Facilities Management – A smaller group works within organizations to maintain and upgrade physical infrastructure, often managing internal construction projects.

Code	Title	Hours
CET 1100	Building Information Modeling	3
CET 1150	Construction Materials and Systems	3
CIVE 1000	Freshman Civil Engineering Experience	1
CIVE 1100	Civil Engineering Measurements	3
CIVE 1150	Engineering Mechanics: Statics	3
CIVE 1160	Engineering Mechanics: Strength Of Materials	3
CIVE 2000	Professional Development	1
CIVE 2110	Civil Engineering Materials With Laboratory	3
CIVE 3210	Soil Mechanics	3
CIVE 3220	Foundation Engineering	3
GNEN 1800	Engineering Applications of Mathematics	3
PHYS 2130	Physics For Science And Engineering Majors I	4
PHYS 2135	Physics for Science and Engineering Majors I - Lab	1
MATH 1850	Single Variable Calculus I	4
CET 1250	Building Systems	3
CET 2010	Construction Safety	1
CET 2030	Construction Graphics	3
CET 2060	Construction Estimating	3
CET 2250	Structural Design	4
CET 3010	Advanced Building Information Modeling	4
CET 3210	Surveying Applications	3
CET 3120	Advanced Construction Materials	3
CET 3160	Construction Contracts	3
CET 3220	Hydrology And Hydraulics	3
CET 4250	Advanced Structural Design	4
CET 4460	Construction Management And Scheduling	3
ENGL 1110	College Composition I	3
ENGL 2950	Technical Writing	3
ENGT 3010	Applied Statistics And Design Of Experiments	4
ENGT 3600	Engineering Economics	3
ENGT 4050	Senior Technology Capstone	3
MATH 1330	Trigonometry	3
CIVE 3940	Co-Op Experience (Course must be taken 3 times, 1 credit hour per semester)	3
Professional Development Technical Electives		6
BUAD 2040	Financial Accounting Information	
BUAD 2050	Accounting For Business Decision-Making	
BUAD 2080	Global Environment Of Business	
BUAD 3010	Principles Of Marketing	
BUAD 3020	Principles Of Manufacturing And Service Systems	
BUAD 3030	Managerial And Behavioral Processes In Organizations	
BUAD 3040	Principles Of Financial Management	
BUAD 3470	The Legal And Ethical Environment Of Business	
FINA 3060	Personal Finance	
BLAW 3570	The Laws Of Structuring And Operating A Business	
ECON 1150	Principles Of Macroeconomics	
or ECON 1200	Principles Of Microeconomics	
CET 3020	Sustainability for Construction	
MET 4600	Engineering Safety	
COMM Electives		3
COMM 2600	Public Presentations	
COMM 2820	Group Communication	
COMM 2840	Interpersonal Communication	
COMM 3820	Persuasion Theory	
COMM 3880	Professional Business Communication	
University Core Requirements		18
Arts/Humanities Core		
Social Science Core		
Non-US Diversity		
US Diversity		
Natural Science Core Elective		3
Total Hours		**127**

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First Term		Hours
MATH 1330	Trigonometry	3
CIVE 1000	Freshman Civil Engineering Experience	1
GNEN 1800	Engineering Applications of Mathematics	3
ENGL 1110	College Composition I	3
CET 1100	Building Information Modeling	3
Social Science/Arts/Humanities/Diversity of US Core		3
	Hours	**16**
Second Term		
ENGL 2950	Technical Writing	3
MATH 1850	Single Variable Calculus I	4
PHYS 2130	Physics For Science And Engineering Majors I	4
PHYS 2135	Physics for Science and Engineering Majors I - Lab	1
CIVE 1100	Civil Engineering Measurements	3
CIVE 2000	Professional Development	1
	Hours	**16**
Third Term		
CIVE 3940	Co-Op Experience	1
	Hours	**1**
Fourth Term		
CET 1150	Construction Materials and Systems	3
CET 1250	Building Systems	3
CIVE 1150	Engineering Mechanics: Statics	3
Social Science/Arts/Humanities/Non-US Diversity Core		3
COMM Elective		3
	Hours	**15**
Fifth Term		
CET 2060	Construction Estimating	3
CIVE 1160	Engineering Mechanics: Strength Of Materials	3
CET 2010	Construction Safety	1
CET 2030	Construction Graphics	3
Social Science / Arts / Humanities Core		3
	Hours	**13**
Sixth Term		
CIVE 3940	Co-Op Experience	1
	Hours	**1**
Seventh Term		
CET 2250	Structural Design	4
CIVE 2110	Civil Engineering Materials With Laboratory	3
CET 3220	Hydrology And Hydraulics	3
CET 3160	Construction Contracts	3
Natural Science Core		3
	Hours	**16**
Eighth Term		
CET 3010	Advanced Building Information Modeling	4
CET 4250	Advanced Structural Design	4
CET 4460	Construction Management And Scheduling	3
Professional Development or Technical Elective		3
Social Science / Arts / Humanities Core		3
	Hours	**17**
Ninth Term		
CIVE 3940	Co-Op Experience	1
	Hours	**1**
Tenth Term		
CET 3210	Surveying Applications	3
CIVE 3210	Soil Mechanics	3
ENGT 3010	Applied Statistics And Design Of Experiments	4
Professional Development or Technical Elective		3
Social Science / Arts / Humanities Core		3
	Hours	**16**
Eleventh Term		
ENGT 4050	Senior Technology Capstone	3
CET 3120	Advanced Construction Materials	3
CIVE 3220	Foundation Engineering	3
ENGT 3600	Engineering Economics	3
Social Science / Arts / Humanities Core		3
	Hours	**15**
	Total Hours	**127**

- PLO (1) an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline;
- PLO (2) an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
- PLO (3) an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- PLO (4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- PLO (5) an ability to function effectively as a member as well as a leader on technical teams.