Construction Engineering Technology BSCET

Overview

Offered by the Department of Civil and Environmental Engineering, the **Bachelor of Science in Construction Engineering Technology** prepares students for a practitioner's role in industry, government or institution in the area of construction management. Their work involves the translation of the design engineer's blueprints into physical and functional reality. These professionals combine aspects of business, construction and engineering and oversee the implementation of large or small construction projects and their safety and compliance with project requirements.

Graduates are qualified for jobs as construction field supervisors, estimators, expediters, construction cost analysts, schedulers, plan examiners for government agencies that control construction, and in safety. Graduates can communicate effectively and have the necessary teamwork and leadership skills to work and participate effectively in a team environment. Also, graduates will have professional growth and life-long learning skills that engineering technologists need to succeed in both the workplace and the society in general.

Construction Engineering Technology students may complete an **optional concentration** in Cooperative Education Program (Co-Op).

Campus Location: Main

Day and evening courses are available; however, most technical courses are offered in the evening only.

Program Code: EN-CNET-BSCT

Accreditation

The Construction Engineering Technology (BS) program is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and Program Criteria for Construction Engineering Technology and Similarly Named Programs. ABET is a non-profit and non-governmental accrediting agency for academic programs in the disciplines of applied science, computing, engineering, and engineering technology recognized by the Council for Higher Education Accreditation (CHEA).

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Learn more about the Bachelor of Science in Construction Engineering Technology.

These requirements are for students who matriculated in academic year 2024-2025. Students who matriculated prior to fall 2024 should refer to the Archives *to view the requirements for their Bulletin year.*

Summary of Requirements

University Requirements

All new students are required to complete the university's General Education (GenEd) curriculum.

All Temple students must take a minimum of two writing-intensive courses for a total of at least six credits. The writing-intensive course credits are counted as part of the major; they are not General Education (GenEd) or elective credits. The writing-intensive courses must be completed at Temple University and students may not transfer in credits to satisfy this requirement. The specific writing-intensive courses required for this major are:

Code	Title	Credit Hours
CMT 4396	Capstone in Construction	3
ENG 2696	Technical Writing	3

College and Major Requirements

Code	Title	Credit Hours
Required Math & Basic Science Courses		
MATH 1022	Precalculus	4
MATH 1031	Differential and Integral Calculus	4
STAT 2103	Statistical Business Analytics	4

or STAT 2903	Honors Statistical Business Analytics	
PHYS 1021	Introduction to General Physics I	4
PHYS 1022	Introduction to General Physics II	4
Select one of the following:		4
CHEM 1031 & CHEM 1033	General Chemistry I and General Chemistry Laboratory I	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I and Honors Chemical Science Laboratory I	
EES 1001	Introductory Geology	
EES 2001	Physical Geology	
Required General Education Courses		
Select one of the following:		4
ENG 0802	Analytical Reading and Writing	
ENG 0812	Analytical Reading and Writing: ESL	
ENG 0902	Honors Analytical Reading and Writing	
IH 0851	Intellectual Heritage I: The Good Life	3
or IH 0951	Honors Intellectual Heritage I: The Good Life	
IH 0852	Intellectual Heritage II: The Common Good	3
or IH 0952	Honors Intellectual Heritage II: The Common Good	
GenEd 08xx or 09xx (U.S. Society)		3
GenEd 08xx or 09xx (Global/World Society)		3
GenEd 08xx or 09xx (Human Behavior)		3
GenEd 08xx or 09xx (The Arts)		3
GenEd 08xx or 09xx (Race and Diversity)		3
Required Construction Management Technology Courses		
CMT 2124	Construction Methods and Materials	3
CMT 2125	Construction Contracts and Specifications	3
CMT 2271	Building Systems	3
CMT 3121	Construction Estimating	3
CMT 3123	Construction Estimating Laboratory	1
CMT 3145	Structural Analysis	3
CMT 3322	Construction Planning and Scheduling	3
CMT 3333	Soils Mechanics	3
CMT 3341	Environmental and Safety Aspects of Construction	2
CMT 3351	Applied Hydraulics	3
CMT 4335	Steel and Wood Structures	3
CMT 4336	Concrete and Masonry Design	3
CMT 4355	Transportation Systems Management	3
CMT 4396	Capstone in Construction	3
Required Civil Engineering Courses		
CEE 1105	Surveying	2
CEE 2011	Civil Engineering Materials	2
Required Engineering Courses		
ENGR 1101	Introduction to Engineering and Engineering Technology	3
or ENGR 1901	Honors Introduction to Engineering	
ENGR 1117	Engineering Graphics	2
Select one of the following:		3
ENGR 3001	Engineering Economics	
FIN 3101	Financial Management [1]	
Required Economics & Technical Writing Courses		
ECON 1101	Macroeconomic Principles	3
or ECON 1901	Honors Macroeconomic Principles	

or ECON 1102	Microeconomic Principles	
or ECON 1902	Honors Microeconomic Principles	
ENG 2696	Technical Writing	3
Required Engineering Technology Courses		
ENGT 2322	Applied Strength of Materials	3
ENGT 2331	Applied Engineering Statics	3
ENGT 4119	Professional Seminar	1
Required Electives		
Special Electives [2]		9
Free Elective		2
Total Credit Hours		**124**

[1] Students must complete all published prerequisites prior to enrolling in this course
[2] Must be approved prior to registration (see list below for suggested courses)

Approved Specialty Electives

Code	Title	Credit Hours
ECON 1101	Macroeconomic Principles	3
or ECON 1901	Honors Macroeconomic Principles	
or ECON 1102	Microeconomic Principles	
or ECON 1902	Honors Microeconomic Principles	
HRM 1101	Leadership and Organizational Management	3
or HRM 1901	Honors Leadership and Organizational Management	
MSOM 3101	Operations Management	3
or MSOM 3901	Honors Operations Management	
MKTG 2101	Marketing Management	3
or MKTG 2901	Honors Marketing Management	
FIN 3101	Financial Management	3
or FIN 3901	Honors Financial Management	
or CMT 4373	Construction Financial Management	
RMI 2101	Introduction to Risk Management	3
or RMI 2901	Honors Introduction to Risk Management	
ENGT 2521	Applied Fluid Mechanics	3
ENGT 3201	Applied Materials Technology	3
ENGT 3323	Applied Dynamics	3
ENGT 3532	Thermodynamics	3
Other Civil Engineering/Engineering/Engineering Technology courses		3

Suggested Academic Plan

Please note that this is a **suggested** academic plan. Depending on your situation, your academic plan may look different.

Bachelor of Science in Construction Engineering Technology

Suggested Plan for New Students Starting in the 2024-2025 Academic Year

Year 1		
Fall		**Credit Hours**
ENGR 1101	Introduction to Engineering and Engineering Technology	3
or ENGR 1901	or Honors Introduction to Engineering	
MATH 1022	Precalculus	4
ENG 0802	Analytical Reading and Writing [GW]	4
or ENG 0812	or Analytical Reading and Writing: ESL [GW]	
or ENG 0902	or Honors Analytical Reading and Writing [GW]	

GenEd Breadth Course		3
GenEd Breadth Course		3
	Credit Hours	**17**
Spring		
CEE 1105	Surveying	2
ENGR 1117	Engineering Graphics	2
MATH 1031	Differential and Integral Calculus	4
PHYS 1021	Introduction to General Physics I	4
IH 0851 or IH 0951	Intellectual Heritage I: The Good Life [GY] or Honors Intellectual Heritage I: The Good Life [GY]	3
	Credit Hours	**15**
Year 2		
Fall		
CMT 2124	Construction Methods and Materials	3
ENGT 2331	Applied Engineering Statics	3
PHYS 1022	Introduction to General Physics II	4
GenEd Breadth Course		3
IH 0852 or IH 0952	Intellectual Heritage II: The Common Good [GZ] or Honors Intellectual Heritage II: The Common Good [GZ]	3
	Credit Hours	**16**
Spring		
CEE 2011	Civil Engineering Materials	2
CMT 2125	Construction Contracts and Specifications	3
CMT 2271	Building Systems	3
ENGT 2322	Applied Strength of Materials	3
STAT 2103 or STAT 2903	Statistical Business Analytics or Honors Statistical Business Analytics	4
	Credit Hours	**15**
Year 3		
Fall		
CMT 3121	Construction Estimating	3
CMT 3123	Construction Estimating Laboratory	1
CMT 3341	Environmental and Safety Aspects of Construction	2
CMT 3333	Soils Mechanics	3
Select one of the following:		4
CHEM 1031 & CHEM 1033	General Chemistry I and General Chemistry Laboratory I	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I and Honors Chemical Science Laboratory I	
EES 1001	Introductory Geology	
EES 2001	Physical Geology	
Select one of the following:		3
ECON 1101	Macroeconomic Principles	
ECON 1901	Honors Macroeconomic Principles	
ECON 1102	Microeconomic Principles	
ECON 1902	Honors Microeconomic Principles	
	Credit Hours	**16**
Spring		
CMT 3322	Construction Planning and Scheduling	3
CMT 3145	Structural Analysis	3
CMT 3351	Applied Hydraulics	3
ENG 2696	Technical Writing [WI]	3

Approved Specialty Elective		3
	Credit Hours	**15**
Year 4		
Fall		
CMT 4336	Concrete and Masonry Design	3
CMT 4355	Transportation Systems Management	3
ENGT 4119	Professional Seminar	1
GenEd Breadth Course		3
Approved Specialty Elective		3
Select one of the following:		3
ENGR 3001	Engineering Economics	
FIN 3101	Financial Management	
	Credit Hours	**16**
Spring		
CMT 4335	Steel and Wood Structures	3
CMT 4396	Capstone in Construction [WI]	3
Free Elective		2
Approved Specialty Elective		3
GenEd Breadth Course		3
	Credit Hours	**14**
	Total Credit Hours	**124**