Engineering Technology BSET

Overview

The **Bachelor of Science in Engineering Technology** is offered by the Department of Engineering, Technology and Management. This program provides a broad base of technological skills extending across the traditional fields of engineering technology with a concentration designed by the student and program coordinator to meet personal and career objectives. A plan of study can be developed with a focus in areas such as construction engineering technology, computer engineering technology, mechanical engineering technology or general engineering technology.

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

Campus Location: Main

Program Code: EN-ENGT-BSET

Accreditation

The Engineering Technology (BS) program is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org, under the General Criteria. 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).

Contact Information

Liliana Schwartz, PhD, Program Coordinator
Engineering Building, Room 907
215-204-7248
liliana.schwartz@temple.edu

Learn more about the Bachelor of Science in Engineering Technology.

These requirements are for students who matriculated in academic year 2023-2024. Students who matriculated prior to fall 2023 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
ENG 2696	Technical Writing	3
ENGT 4196	Capstone Project	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
CHEM 1031	General Chemistry I	3
or CHEM 1951	Honors General Chemical Science I	
CHEM 1033	General Chemistry Laboratory I	1

or CHEM 1953	Honors Chemical Science Laboratory I	
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 Writing About Literature	
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 (Arts)		3
GenEd 08xx or 09xx (Race and Diversity)		3
Required Economics, Technical Writing, and Communication 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
CSI 1111	Introduction to Public Speaking	3
or CSI 1911	Honors Introduction to Public Speaking	
Required Innovation & Business Elective Courses		
Select two courses from the following list:		6
ECON 1102	Microeconomic Principles	
or ECON 1101	Macroeconomic Principles	
or ECON 1902	Honors Microeconomic Principles	
or ECON 1901	Honors Macroeconomic Principles	
ENGR 3033	Entrepreneurial Engineering	
HRM 1101	Leadership and Organizational Management	
or HRM 1901	Honors Leadership and Organizational Management	
MKTG 2101	Marketing Management	
or MKTG 2901	Honors Marketing Management	
RMI 2101	Introduction to Risk Management	
or RMI 2901	Honors Introduction to Risk Management	
RMI 2501	Fundamentals of Personal Financial Planning	
SGM 3501	Entrepreneurial and Innovative Thinking	
SGM 3503	Lean Startup: Fast and Inexpensive Ways to Test and Launch Your Ideas	
SGM 3585	Social Impact Internship - Work with Benefit/B-corps, Non-profits, or Multi-bottom-line Ventures	
SGM 3685	New Venture Internship: Learning to be a High-Value Employee, Manager, or Founder	
Required Engineering Technology Courses		
Select one of the following:		4
ECE 2112 & ECE 2113	Electrical Devices & Systems I and Electrical Devices & Systems I Lab	
EET 2104	Introduction to Electrical Circuits	
ENGR 1101	Introduction to Engineering & Engineering Technology	3
or ENGR 1901	Honors Introduction to Engineering	
ENGR 1117	Engineering Graphics	2
ENGR 3001	Engineering Economics	3
ENGT 2521	Applied Fluid Mechanics	3
or ENGT 3532	Thermodynamics	

ENGT 2322	Applied Strength of Materials	3
ENGT 2331	Applied Engineering Statics	3
ENGT 3201	Applied Materials Technology	3
ENGT 4119	Professional Seminar	1
ENGT 4196	Capstone Project	3
Select one of the following Approved Science Electives:		4
CHEM 1032 & CHEM 1034	General Chemistry II and General Chemistry Laboratory II	
CHEM 1952 & CHEM 1954	Honors General Chemical Science II and Honors Chemical Science Laboratory II	
ENST 2002	Physical Geography	
Technical Electives (must include 3 labs)		24
Free Electives		4
Total Credit Hours		**124**

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 Engineering Technology

Suggested Plan for New Students Starting in the 2023-2024 Academic Year

Year 1		
Fall		**Credit Hours**
MATH 1022	Precalculus	4
CHEM 1031 or CHEM 1951	General Chemistry I or Honors General Chemical Science I	3
CHEM 1033 or CHEM 1953	General Chemistry Laboratory I or Honors Chemical Science Laboratory I	1
ENGR 1101 or ENGR 1901	Introduction to Engineering & Engineering Technology or Honors Introduction to Engineering	3
ENG 0802 or ENG 0812 or ENG 0902	Analytical Reading and Writing or Analytical Reading and Writing: ESL or Honors Writing About Literature	4
	Credit Hours	**15**
Spring		
MATH 1031	Differential and Integral Calculus	4
ENGR 1117	Engineering Graphics	2
IH 0851 or IH 0951	Intellectual Heritage I: The Good Life or Honors Intellectual Heritage I: The Good Life	3
GenEd Breadth Course		3
Approved Free Elective		3
	Credit Hours	**15**
Year 2		
Fall		
Innovation & Business Elective		3
PHYS 1021	Introduction to General Physics I	4
CSI 1111 or CSI 1911	Introduction to Public Speaking or Honors Introduction to Public Speaking	3
IH 0852 or IH 0952	Intellectual Heritage II: The Common Good or Honors Intellectual Heritage II: The Common Good	3
GenEd Breadth Course		3
	Credit Hours	**16**
Spring		
PHYS 1022	Introduction to General Physics II	4

ENGT 2331	Applied Engineering Statics	3
Approved Technical Elective		3
Select one of the following:		3
ECON 1101	Macroeconomic Principles	
ECON 1901	Honors Macroeconomic Principles	
ECON 1102	Microeconomic Principles	
ECON 1902	Honors Microeconomic Principles	
Select one of the following Approved Science Electives:		4
CHEM 1032 & CHEM 1034	General Chemistry II and General Chemistry Laboratory II	
CHEM 1952 & CHEM 1954	Honors General Chemical Science II and Honors Chemical Science Laboratory II	
ENST 2002	Physical Geography	
	Credit Hours	**17**
Year 3		
Fall		
Innovation & Business Elective		3
ENGT 2322	Applied Strength of Materials	3
STAT 2103 or STAT 2903	Statistical Business Analytics or Honors Statistical Business Analytics	4
Approved Technical Elective		3
GenEd Breadth Course		3
	Credit Hours	**16**
Spring		
ENGT 3201	Applied Materials Technology	3
Select one of the following:		3
ENGT 2521	Applied Fluid Mechanics	
ENGT 3532	Thermodynamics	
ENGT 4119	Professional Seminar	1
Approved Technical Elective		3
GenEd Breadth Course		3
GenEd Breadth Course		3
	Credit Hours	**16**
Year 4		
Fall		
Select one of the following:		4
ECE 2112 & ECE 2113	Electrical Devices & Systems I and Electrical Devices & Systems I Lab	
EET 2104	Introduction to Electrical Circuits	
ENG 2696	Technical Writing	3
Approved Lab Elective		1
Approved Lab Elective		1
Approved Technical Elective		3
ENGR 3001	Engineering Economics	3
	Credit Hours	**15**
Spring		
ENGT 4196	Capstone Project	3
Approved Technical Elective		3
Approved Technical Elective		3
Approved Technical Elective		3
Approved Lab Elective		1

Free Elective		1
	Credit Hours	**14**
	Total Credit Hours	**124**

Approved Technical Electives

Code	Title	Credit Hours
CEE 1105	Surveying	2
CEE 2011	Civil Engineering Materials	2
CIS 1053	Programming in Matlab	4
CIS 1057	Computer Programming in C	4
CIS 1068	Program Design and Abstraction	4
or CIS 1968	Honors Program Design and Abstraction	
CIS 1166	Mathematical Concepts in Computing I	4
or CIS 1966	Honors Mathematical Concepts in Computing I	
CIS 2168	Data Structures	4
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 4336	Concrete and Masonry Design	3
ECE 3822	Engineering Computation II	3
EET 3276	Digital Logic Circuits	4
EET 3277	Microcomputer Systems	4
ENGR 2011	Engineering Analysis & Applications	3
ENGT 3323	Applied Dynamics	3
ENGT 3532	Thermodynamics	3
ENGT 3651	Manufacturing Control Systems	3
ENGT 3652	CAD/CAM/CNC	3
ENGT 4278	Cardiac Devices	3
ENGT 4342	Machine Elements	3
ENGT 4532	Heating, Ventilating, and Air Conditioning	3
ENGT 4641	Production Tooling	3
ENGT 4642	Quality Control	3
ENGT 4643	Fundamentals of Manufacturing	3
MEE 2305	Instrumentation and Data Acquisition Lab	1
MEE 3305	Materials Laboratory	1
MEE 3506	Fluid Mechanics Laboratory	1