Engineering Technology BSET with Mechanical Engineering Technology Concentration

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. Students focus on hands-on, real-world technology solutions, learning how to bridge the gap between design engineers and production teams.

Engineering Technology students may complete an **optional concentration in Mechanical Engineering Technology.**

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 commission's General Criteria with no applicable program 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.

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Learn more about the Bachelor of Science in Engineering Technology.

These requirements are for students who matriculated in academic year 2026-2027. Students who matriculated prior to fall 2026 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
ENGR 2196	Technical Communication	3
or ENGR 2996	Honors Technical Communication	
ENGT 4196	Engineering Technology and Mechanical Engineering Technology Capstone Project II	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
Select one of the following:		3-4

ISE 2101	Applied Statistical Methods for Industrial and System Engineers	
STAT 2103	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 1035 & CHEM 1036	Chemistry for Engineers and Chemistry Laboratory for Engineers	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I and Honors Chemical Science Laboratory I	
Select one of the following:		4
CIS 1051	Introduction to Problem Solving and Programming in Python	
CIS 1057	Computer Programming in C	
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 (Arts)		3
GenEd 08xx or 09xx (Race and Diversity)		3
Required Engineering Technology Courses		
ECE 2112	Electrical Devices & Systems I	3
ECE 2113	Electrical Devices & Systems I Lab	1
ENGR 1001	College of Engineering First Year Seminar	1
ENGR 1101	Introduction to Engineering and Engineering Technology	3
or ENGR 1901	Honors Introduction to Engineering	
ENGR 1102	Introduction to Engineering Problem Solving	3
ENGR 2196	Technical Communication	3
or ENGR 2996	Honors Technical Communication	
ENGR 3003	Business Analysis for Engineers	3
ENGR 3033	Entrepreneurial Engineering	3
ENGT 2322	Applied Strength of Materials	3
ENGT 2329	Additive Manufacturing - 3D Printing	3
ENGT 2331	Applied Engineering Statics	3
ENGT 2521	Applied Fluid Mechanics	3
ENGT 3201	Applied Materials Technology	3
ENGT 3306	Machine Shop Laboratory	1
ENGT 3323	Applied Dynamics	3
ENGT 3532	Thermodynamics	3
ENGT 3651	Manufacturing Control Systems	3
ENGT 3652	CAD/CAM/CNC	3
ENGT 3661	Project Management in Engineering Technology	2
ENGT 4119	Professional Seminar	1
ENGT 4175	Engineering Technology and Mechanical Engineering Technology Capstone Project I	1
ENGT 4196	Engineering Technology and Mechanical Engineering Technology Capstone Project II	3

ENGT 4342	Machine Elements	3
ENGT 4532	Heating, Ventilating, and Air Conditioning	3
MEE 1117	Fundamentals of Mechanical Engineering Design	2
MEE 2305	Instrumentation and Data Acquisition Lab	1
MEE 3305	Materials Laboratory	1
MEE 3506	Fluid Mechanics Laboratory	1
MET Technical Elective #1		3
MET Technical Elective #2		2
Free Elective		1-0
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 with Optional Concentration in Mechanical Engineering Technology

Suggested Plan for New Students Starting in the 2026-2027 Academic Year

Year 1		
Fall		**Credit Hours**
MATH 1022	Precalculus	4
ENGR 1001	College of Engineering First Year Seminar	1
ENGR 1101 or ENGR 1901	Introduction to Engineering and Engineering Technology or Honors Introduction to Engineering	3
MEE 1117	Fundamentals of Mechanical Engineering Design	2
ENG 0802 or ENG 0812 or ENG 0902	Analytical Reading and Writing [GW] or Analytical Reading and Writing: ESL [GW] or Honors Analytical Reading and Writing [GW]	4
GenEd Breadth Course		3
	Credit Hours	**17**
Spring		
MATH 1031	Differential and Integral Calculus	4
ENGR 1102	Introduction to Engineering Problem Solving	3
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
GenEd Breadth Course		3
	Credit Hours	**17**
Year 2		
Fall		
Select one of the following:		4
CHEM 1031 & CHEM 1033	General Chemistry I and General Chemistry Laboratory I	
CHEM 1035 & CHEM 1036	Chemistry for Engineers and Chemistry Laboratory for Engineers	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I and Honors Chemical Science Laboratory I	
PHYS 1022	Introduction to General Physics II	4
ENGT 2331	Applied Engineering Statics	3
ENGT 2329	Additive Manufacturing - 3D Printing	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	**17**

Spring		
ENGT 2322	Applied Strength of Materials	3
ENGT 2521	Applied Fluid Mechanics	3
ECE 2112	Electrical Devices & Systems I	3
ECE 2113	Electrical Devices & Systems I Lab	1
ENGR 2196 or ENGR 2996	Technical Communication [WI] or Honors Technical Communication [WI]	3
GenEd Breadth Course		3
	Credit Hours	**16**
Year 3		
Fall		
Select one of the following:		3-4
ISE 2101	Applied Statistical Methods for Industrial and System Engineers	
STAT 2103	Statistical Business Analytics	
ENGT 3651	Manufacturing Control Systems	3
CIS 1051 or CIS 1057	Introduction to Problem Solving and Programming in Python or Computer Programming in C	4
ENGT 3323	Applied Dynamics	3
ENGR 3003	Business Analysis for Engineers	3
	Credit Hours	**16-17**
Spring		
ENGT 3532	Thermodynamics	3
ENGT 3661	Project Management in Engineering Technology	2
ENGT 4119	Professional Seminar	1
ENGT 4342	Machine Elements	3
ENGT 3652	CAD/CAM/CNC	3
MEE 3506	Fluid Mechanics Laboratory	1
GenEd Breadth Course		3
	Credit Hours	**16**
Year 4		
Fall		
ENGT 4175	Engineering Technology and Mechanical Engineering Technology Capstone Project I	1
ENGT 3306	Machine Shop Laboratory	1
ENGT 3201	Applied Materials Technology	3
MEE 2305	Instrumentation and Data Acquisition Lab	1
ENGT 4532	Heating, Ventilating, and Air Conditioning	3
GenEd Breadth Course		3
	Credit Hours	**12**
Spring		
ENGR 3033	Entrepreneurial Engineering	3
ENGT 4196	Engineering Technology and Mechanical Engineering Technology Capstone Project II [WI]	3
MEE 3305	Materials Laboratory	1
MET Technical Elective #1		3
MET Technical Elective #2		2
Free Elective		1-0
	Credit Hours	**13-12**
	Total Credit Hours	**124**

Approved Technical Electives

Code	Title	Credit Hours
Any course 2000-level or above from the College of Engineering		1-3
ART 1401	Introduction to Jewelry for Non-Tyler BFA Students	3
BIOE 2001	Frontiers in Bioengineering	2
BIOE 3719	Introduction to Bioengineering	3
BIOE 4278	Cardiac Devices	3
CEE 2011	Civil Engineering Materials	2
CEE 4221	Intelligent Transportation Systems	3
CIS 1068	Program Design and Abstraction	4
CIS 1166	Mathematical Concepts in Computing I	4
CIS 2109	Database Management Systems	4
CMT 2124	Construction Methods and Materials	3
CMT 2125	Construction Contracts and Specifications	3
CMT 4355	Transportation Systems Management	3
ENGR 1185	Internship Experience I	1 to 4
ENGR 2181	Co-Op Work Experience I (sophomore level and up)	3
ENGT 2202	Programming Fundamentals in Bioengineering	1.5
or BIOE 2202	Programming Fundamentals in Bioengineering	
ENGT 3001	Research Design and Methods in Bioengineering	2
or BIOE 3001	Research Design and Methods in Bioengineering	
ENGT 3182	Independent Study in Engineering Technology	1 to 5
ENGT 4040	Special Topics (with the permission of faculty and program director)	1 to 4
ISE 2102	Manufacturing Systems Design	3
ISE 3101	Quality Control and Process Improvement	3

Approved Technical Elective Lecture/Lab Combinations

Code	Title	Credit Hours
CIS 1051	Introduction to Problem Solving and Programming in Python	4
CIS 1052	Introduction to Web Technology and Programming	4
CIS 1057	Computer Programming in C	4
CIS 1068	Program Design and Abstraction	4
CIS 1166	Mathematical Concepts in Computing I	4
CIS 2109	Database Management Systems	4
ENGR 4040	Special Topics	1 to 4