Mechanical Engineering Technology

(Bachelor of Science)

Accreditation

The Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

UW-Green Bay Engineering Technology

Combine hands-on learning with academic coursework and get ready for high-demand jobs in the growing field of engineering technology. The University partners with regional leaders and technical colleges so that you will be prepared for an ever-changing industry. Get the technical skills that will make you an expert and the critical-thinking skills that will make you indispensable.

Engineering Technology Mission

All of the Engineering Technology programs (Electrical, Mechanical and Environmental) include a strong liberal arts base along with a number of hands-on experiences, including a capstone experience or internship that often will be working with businesses and organizations within the community.

Mechanical Engineering Technology

Mechanical engineering technology (MET) is the application of engineering principles and technological developments to new and existing manufacturing systems. Mechanical engineering technologists work with engineers in designing, testing, and manufacturing mechanical equipment or systems. There are many employment opportunities in mechanical design, manufacturing and industrial engineering technology, industrial management, computer aided design, applied research and sales and service.

The Bachelor of Science (B.S.) degree in Mechanical Engineering Technology at UW-Green Bay is a professional program that prepares students for careers in applied mechanical engineering using analytical and critical problem solving skills needed in regional and national industries, manufacturing, and engineering services firms. The focus of the program is the application of engineering principles to the solution of practical problems. Students will develop skills in hands on application labs and courses that explore the fundamentals of mechanics, mathematics, physics, materials technology, and computer aided design. Teamwork, technical writing, and project management are also emphasized throughout the curriculum. The goal of the major is to develop well rounded engineering technologists that can adapt and succeed in a highly competitive workplace.

Students will benefit from relationships with local technical colleges, and local industry to complete a B.S. in engineering technology in the Northeast Wisconsin area. Students may start earning their degree at UW-Green Bay or local technical colleges to give maximum flexibility in degree completion. In addition, the Northeast Wisconsin Educational Resource Alliance, NEW ERA, has established advisory boards linking leaders in regional industry and participating institutions to the major. Through these relationships students will have many opportunities for internships, co-op experiences, and employment after graduation.

Mechanical Engineering Technology Program Learning Outcomes

1. Program graduates will secure and maintain employment in appropriate MET positions industry-wide and perform all functions assigned to an mechanical engineering technologist.
2. Graduates will apply their knowledge of mathematics, science, engineering technology, and computing to identify, analyze, and solve problems pertaining to design, development, and implementation of electronic systems.
3. Graduates will exhibit a desire for life-long learning through higher education, technical training, teaching, membership in professional societies, and other developmental activities and will achieve positions of increased responsibility through these activities.
4. Graduates will demonstrate high levels of oral and written communication skills, critical thinking, responsibility and ethical behavior, teamwork and appreciation for diversity, and leadership in their careers.

Contact

For more information contact:

Jagadeep Thota, Ph.D.
Chair, Engineering
Phone: 920-465-2817
Email: thotaj@uwgb.edu

or

Patricia Terry, Ph.D.
Chair, Richard J. Resch School of Engineering

Phone: 920-465-2749
Email: terryp@uwgb.edu

Major

Code	Title	Credits
Supporting Courses		**31-37**
ENGR 236	Technical Writing and Information Literacy	
ET 101	Fundamentals of Engineering Technology	
MATH 202	Calculus and Analytic Geometry I	
MATH 203	Calculus and Analytic Geometry II	
MATH 260	Introductory Statistics	
ME 204	Introduction to MATLAB Programming	
MET 105	Fundamentals of Drawing	
PHYSICS 202	Principles of Physics II	
PHYSICS 204	Introductory Physics Lab II	
Chemistry options (choose one):		
CHEM 211 & CHEM 213 & CHEM 212 & CHEM 214	Principles of Chemistry I and Principles of Chemistry I Laboratory and Principles of Chemistry II and Principles of Chemistry II Laboratory	
or ME 206	Chemistry for Engineers	
Fundamental Courses		**23**
ME 201	Engineering Materials	
ME 213	Mechanics I	
ME 214	Mechanics II	
ME 216	Basic and Green Manufacturing Processes	
ME 220	Mechanics of Materials	
ME 221	Mechanics of Materials Lab	
ME 308	Electrical and Electronic Circuits	
MET 207	Computer Aided Design	
MET 218	Fluid Mechanics	
Advanced Courses		**30**
ET 360	Project Management	
ME 324	Engineering Thermodynamics	
ME 408	Finite Element Analysis	
ME 420	Machine Component Design I	
MET 318	Fluid Power Systems	
MET 324	Motors and Drives	
MET 380	Industrial Automation Control	
MET 385	Robotics	
MET 390	Mechatronics	
MET 405	Applied Thermodynamics	
Capstone Requirement		**3**
ET 400	Co-op/Internship in Engineering Technology	
or ET 410	Capstone Project	
Technical Electives (choose two courses):		**6**
ET 415	Solar and Alternate Energy Systems	
ME 334	Industrial Decision Processes	
ME 422	Machine Component Design II	
ME 494	Co-op	
ME 498	Independent Study	
Total Credits		**93-99**

Curriculum Guide

The following curriculum guide is for a four-year **Mechanical Engineering Technology** degree program and is subject to change without notice. Students should consult their program advisor to ensure that they have the most accurate and up-to-date information available. This program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

Total **123** credits necessary to graduate.

Course	Title	Credits
Freshman		
Fall		
ET 101	Fundamentals of Engineering Technology	2
ET 105	Fundamentals of Drawing	3
MATH 202	Calculus and Analytic Geometry I (Quantitative Literacy)	4
ME 206	Chemistry for Engineers	4
First Year Seminar		3
	Credits	**16**
Spring		
MATH 203	Calculus and Analytic Geometry II	4
ME 204	Introduction to MATLAB Programming	3
MET 207	Computer Aided Design	3
General Education		3
General Education		3
	Credits	**16**
Sophomore		
Fall		
ENGR 236	Technical Writing and Information Literacy	3
MATH 260	Introductory Statistics	4
ME 201	Engineering Materials	3
ME 213	Mechanics I	3
General Education		3
	Credits	**16**
Spring		
ME 214	Mechanics II	3
ME 216	Basic and Green Manufacturing Processes	3
ME 220	Mechanics of Materials	3
ME 221	Mechanics of Materials Lab	1
MET 218	Fluid Mechanics	3
General Education		3
	Credits	**16**
Junior		
Fall		
PHYSICS 202	Principles of Physics II	4
PHYSICS 204	Introductory Physics Lab II	1
ME 308	Electrical and Electronic Circuits	3
MET 318	Fluid Power Systems	3
MET 385	Robotics	3
General Education		3
	Credits	**17**
Spring		
ET 360	Project Management	3
ME 324	Engineering Thermodynamics	3
MET 324	Motors and Drives	3
General Education		3
General Education		3
	Credits	**15**
Senior		
Fall		
ME 408	Finite Element Analysis	3
ME 420	Machine Component Design I	3
MET 380	Industrial Automation Control	3
Technical Elective I		3

General Education		3
	Credits	**15**
Spring		
ET 390	Mechatronics	3
ET 400 or ET 410	Co-op/Internship in Engineering Technology (Capstone) or Capstone Project	3
MET 405	Applied Thermodynamics	3
Technical Elective II		3
General Education		3
	Credits	**15**
	Total Credits	**126**

Technical Electives (choose any two):

1. ET 415 Solar and Alternate Energy Systems (3 s.h.)
2. ME 334 Industrial Decision Processes (3 s.h.)
3. ME 422 Machine Component Design II (3 s.h.)
4. ENGR 494 Co-op (1-2 s.h.)
5. ENGR 498 Independent Study (1-4 s.h.)

Faculty

Riaz Ahmed; Associate Professor; Ph.D., University of South Carolina, chair

Md Rasedul Islam; Associate Professor; Ph.D., University of Wisconsin - Madison

Jagadeep Thota; Associate Professor; Ph.D., University of Nevada - Las Vegas

Jian Zhang; Associate Professor; Ph.D., Mississippi State University

MD Assad-Uz-Zaman; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee

Banda Fernando Cano; Assistant Professor; D.Eng., Hiroshima University

Carlos Ulises Gonzalez-Valle; Assistant Professor; Ph.D., Penn State University