

MECHANICAL ENGINEERING TECHNOLOGY (B.S.)

Evening study available.

Bachelor of Science Program

Program Code: BS-SP

Major Code: MET

Engineering Technology Department

Technology Building 126

(716) 878-6017

engineeringtechnology.buffalostate.edu ([https://](https://engineeringtechnology.buffalostate.edu/)

engineeringtechnology.buffalostate.edu/)

The Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org> under the commission's General Criteria and Program Criteria for Mechanical Engineering Technology and Similarly Named Programs.

The bachelor's degree in the mechanical engineering technology program is designed to give the student a broad education in the areas of mechanical design, mechanics, stress analysis, thermosciences, and manufacturing. Graduates are in high demand and are employed by manufacturing companies, consulting firms, government agencies, testing laboratories, and other enterprises that require people with strong mechanically oriented backgrounds. Graduates work as mechanical designers developing new products, manufacturing supervisors solving problems of producing these products for performance or quality, as plant engineers improving or maintaining factories, and in technical sales selling these products. The duties of technologists may involve overseeing installation, operation, maintenance, and repair to ensure that machines and equipment are installed and functioning according to specifications; specifying system components; supervising drafters in developing the design of products; testing and evaluating products; and or/developing cost estimates.

1

Technology Accreditation Commission/Accreditation Board for Engineering and Technology Inc. (TAC/ABET)

111 Market Place, Suite 1050

Baltimore, MD 21202

(410) 347-7700

Program Requirements

Code	Title	Credit Hours
------	-------	--------------

General Education 23 Requirements (http://ecatalog.buffalostate.edu/undergraduate/collegewide-degree-requirements-baccalaureate-degrees/#IF_Courses)

33 credit hours	33
-----------------	----

Mechanical Engineering Technology Major Requirements (51 credit hours)

ENT 213	COMPUTER METHODS FOR TECHNOLOGISTS	3
ENT 301	MECHANICS I	3
ENT 302	MECHANICS II	3
ENT 303	KINEMATICS	3
ENT 311	THERMODYNAMICS	3
ENT 312	FLUID MECHANICS	3
ENT 314	SOLID MODELING	3
ENT 331	ELECTRICAL CIRCUITS AND DEVICES	3
ENT 335 or ENT 371	INDUSTRIAL ELECTRONICS ELECTRIC MACHINES	3
ENT 401	STRESS ANALYSIS	3
ENT 402	SHOCK AND VIBRATION ANALYSIS	3
ENT 411	HEAT TRANSFER	3
ENT 420	PROFESSIONAL EXPERIENCE IN MECHANICAL ENGINEERING TECHNOLOGY	1
ENT 421	MACHINE DESIGN I	3
ENT 422	MACHINE DESIGN II	3
TEC 101	TECHNICAL DRAWING	3
TEC 201	MATERIALS PROCESSING	3
TEC 311	MATERIALS SCIENCE AND TESTING	3

Electives (0-10 credit hours)

The following accreditation requirements can be included in the General Education 23 requirements and electives:	0-10
--	------

CHE 111 & CHE 113	FUNDAMENTALS OF CHEMISTRY I and LABORATORY FOR FUNDAMENTALS OF CHEMISTRY I	
CIS 151	COMPUTER PROGRAMMING I	
MAT 126 or MAT 101	APPLIED CALCULUS I CALCULUS I	
MAT 127 or MAT 102	APPLIED CALCULUS II CALCULUS II	
MAT 315 or ENT 301	DIFFERENTIAL EQUATIONS MATHEMATICS APPLICATIONS IN ENGINEERING TECHNOLOGY	
PHY 107	GENERAL PHYSICS I	

or PHY 11UNIVERSITY PHYSICS I	
PHY 108	GENERAL PHYSICS II
or PHY 11UNIVERSITY PHYSICS II	
SPC 205	INTRODUCTION TO ORAL COMMUNICATION
Select one of the following:	
MAT 202	INTRODUCTION TO LINEAR ALGEBRA
MAT 241	COMPUTATIONAL TOOLS FOR APPLIED MATHEMATICIANS I
MAT 270	DISCRETE MATHEMATICS
MAT 311	INTRODUCTORY PROBABILITY AND STATISTICS (or other math course by advisement)
All College Electives	
30-36 credit hours	30-36
Total Credit Hours	120

Students will acquire:

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.
2. An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline.
3. An ability to apply written, oral, and graphical communication in broadly-defined technical and nontechnical environments; and an ability to identify and use appropriate technical literature.
4. An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.
5. An ability to function effectively as a member or leader on a technical team.