

# MECHANICAL ENGINEERING TECHNOLOGY (B.S.)

Evening study available.

BS-SP MET

## Engineering Technology Department Bachelor of Science (HEGIS 0925)

The Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, (<http://www.abet.org>)

Technology Building 126  
(716) 878-6017

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

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.

<sup>1</sup> 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 |
|---|-------|--------------|
| Intellectual Foundations Requirements ( <a href="http://ecatalog.buffalostate.edu/undergraduate/collegewide-degree-requirements-baccalaureate-degrees/#IF_Courses">http://ecatalog.buffalostate.edu/undergraduate/collegewide-degree-requirements-baccalaureate-degrees/#IF_Courses</a> ) |       |              |
| 33-39 credit hours  |       | 33-39        |
| <b>Mechanical Engineering Technology Major Requirements (51 credit hours)</b>   |       |              |

|         |  |   |
|---------|--|---|
| 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 | INDUSTRIAL ELECTRONICS                                       | 3 |
| ENT 371 | 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 Intellectual Foundations requirements and electives: 0-10

|         |  |  |
|---------|--|--|
| CHE 101 | GENERAL CHEMISTRY I<br>or CHE 111 FUNDAMENTALS OF CHEMISTRY I  |  |
| CHE 102 | GENERAL CHEMISTRY II<br>or CHE 111 FUNDAMENTALS OF CHEMISTRY I |  |
| CIS 151 | COMPUTER-BASED INFORMATION PROCESSING I                        |  |

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) |  |
| MAT 126 | APPLIED CALCULUS I<br>or MAT 161 CALCULUS I                                  |  |

|                              |                                       |   |
|------------------------------|---------------------------------------|---|
| MAT 127                      | APPLIED CALCULUS II                   |   |
|                              | or MAT 110                            | CALCULUS II   |
| MAT 315                      | DIFFERENTIAL EQUATIONS                |   |
|                              | or ENT 300                            | MATHEMATICS APPLICATIONS IN<br>ENGINEERING TECHNOLOGY |
| PHY 107                      | GENERAL PHYSICS I                     |   |
|                              | or PHY 110                            | UNIVERSITY PHYSICS I                                  |
| PHY 108                      | GENERAL PHYSICS II                    |   |
|                              | or PHY 110                            | UNIVERSITY PHYSICS II                                 |
| SPC 205                      | INTRODUCTION TO ORAL<br>COMMUNICATION |   |
| <b>All College Electives</b> |                                       |   |
| 30-36 credit hours           |                                       | 30-36   |
| <b>Total Credit Hours</b>    |                                       | <b>120</b>  |