MECHANICAL ENGINEERING TECHNOLOGY, BSET

Requirements for Students Matriculating in or before Academic Year 2024-2025. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 121

### Code | Title | Hours
---|---|---

#### General Education Requirements
All General Education coursework requirements are satisfied upon completion of this degree plan.

**English Composition**
See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)

**ENGL 1113** Composition I 1,0
or **ENGL 1313** Critical Analysis and Writing I 1,0
**ENGL 3323** Technical Writing 1,0

**American History & Government**
Select one of the following: 3,0

- **HIST 1103** Survey of American History 1,0
- **HIST 1483** American History to 1865 (H) 1,0
- **HIST 1493** American History Since 1865 (DH) 1,0

**POLS 1113** American Government 3,0

**Analytical & Quantitative Thought (A)**

**MATH 2144** Calculus I (A) 4,0
**MATH 2153** Calculus II (A) 3,0

**Humanities (H)**
Courses designated (H) 6,0

**Natural Sciences (N) and Scientific Investigation (L)**
Select one of the following: 4,0

- **CHEM 1215** Chemical Principles I (LN) 1,0
- **CHEM 1314** Chemistry I (LN) 1,0
- **CHEM 1414** General Chemistry for Engineers (LN) 1,0
- **PHYS 2014** University Physics I (LN) 1,0

**Social & Behavioral Sciences (S)**
Select one of the following: 3,0

- **SPCH 2713** Introduction to Speech Communication (S) 1,0

**Additional General Education**
Course designated (A) or (H) or (N) or (S) 4,0

**Diversity (D) & International Dimension (I)**
May be completed in any part of the degree plan.
Select at least one Diversity (D) course
Select at least one International Dimension (I) course

**Hours Subtotal** 40,0

### College/Departmental Requirements

**UNIV 1111** First Year Seminar (or other approved first year seminar course) 1,0

**Specialty**

**MET 2313** Fundamentals of Hydraulic Fluid Power 3,0

**MET 3543** Manufacturing Processes 3,0
**MET 4223** Geometric Dimensioning and Tolerancing 3,0
or **MET 2223** Geometric Dimensioning and Tolerancing with Computer-Aided Design 3,0

**Related Specialty**

**ENGR 1412** Introductory Engineering Computer Programming 2,0
or **EET 1003** Introduction to Microcomputer Programming 2,0
**ENSC 2113** Statics 3,0
**ENSC 2613** Introduction to Electrical Science 3,0
**ENSC 2411** Electrical Science Lab 1,0

Select three hours from the following: 3,0

- **MET 1123** Technical Drawing and Basic CAD 4,0
  OR
- **ENGR 1322** Engineering Design with CAD & **MET 1121** and Technical Graphics 4,0
  OR
- **ENGR 1332** Engineering Design with CAD for MAE & **MET 1121** and Technical Graphics 4,0

**ENSC 2141** Strength of Materials Lab 1,0
**ENSC 3231** Fluids and Hydraulics Lab 1,0
**ENSC 3311** Material Science Lab 1,0
**ENSC 3431** Thermodynamics and Heat Transfer Lab 1,0
**ENGR 2421** Engineering Data Acquisition Controls Lab 1,0

**Hours Subtotal** 27,0

### Major Requirements

**ENSC 2143** Strength of Materials 3,0
or **GENT 3323** Strength of Materials 3,0
**MET 3433** Basic Thermodynamics 5,0
or **ENSC 2213** Thermodynamics 3,0
**MET 3453** Heat Transfer 6,0 3,0
**MET 3003** Dynamics 3,0
or **ENSC 2123** Elementary Dynamics 3,0
**MET 3113** Basic Instrumentation 3,0
**MET 3313** Applied Fluid Mechanics 3,0
**MET 3343** Metallurgy and Polymers 3,0
**MET 4003** Machine Elements 3,0
**MET 4103** Senior Design I 3,0
or **MET 4133** Interdisciplinary Design I 3,0
**MET 4123** Senior Design II 3,0
or **MET 4143** Interdisciplinary Design II 3,0
**IEM 3503** Engineering Economic Analysis 3,0
or **IEM 3513** Economic Decision Analysis 3,0

Select 9 hours from the following: 9,0

- **MET 3803** Fundamentals of Mechatronics 3,0
- **MET 4023** Advanced Mechanical Computer-Aided Design 3,0
- **MET 4033** Applied Vibration and Acoustics 3,0
- **MET 4050** Advanced Mechanical Design 3,0
- **MET 4113** Practical Computational Fluid Dynamics 3,0
- **MET 4203** Finite Element Methods 3,0
- **MET 4173** Additive Manufacturing: Materials, Methods and Applications 3,0
MET 4713 Internal Ballistics
MET 4723 External Ballistics
MET 4733 Terminal Ballistics and Armor
MET 4803 Mechatronic System Design
MET 4993 Mechanical Engineering Technology Practice
MET 4953 Industrial Assessment and Improvement

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<th>42</th>
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**Electives**

A total of 12 credit hours from the following with at least 3 being upper-division hours:

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**Total Hours**

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<th>121</th>
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1. If B or higher is not earned in ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I, ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II is also required (per Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/)).

2. MET 1223 also permitted.

3. MET 1213 or GENT 1223 also permitted.

4. GENT 1153 also permitted.

5. GENT 3433 is also permitted.

6. MET 4433 or GENT 4433 is also permitted.

7. MATH 1513 can be taken here if a student needs to take MATH 1513 as a prerequisite for MATH 1813.

**Additional State/OSU Requirements**

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2030.

**Graduation Requirements**

1. A minimum average Technical GPA of 2.00 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.

2. A grade of 'C' or better is required in all courses with an analytical or natural science designation or engineering or engineering technology prefix.

3. Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made so long as the changes do not delay graduation or result in semester hours being added.

4. The minimum requirements for the Mechanical Engineering Technology degree is 121. In cases where two courses can meet a requirement and they have differing credit hours, the lower credit hour course is typically recommended. The alternatives are largely listed to facilitate transfer into the MET degree from other programs.