MECHANICAL ENGINEERING TECHNOLOGY, BSET

Requirements for Students Matriculating in or before Academic Year 2021-2022. 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: 120-123

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

American History & Government
Select one of the following: 3
- HIST 1103 | Survey of American History |
- HIST 1483 | American History to 1865 (H) |
- HIST 1493 | American History Since 1865 (DH) |
- POLS 1113 | American Government |

Analytical & Quantitative Thought (A)
MATH 2123 | Calculus for Technology Programs I (A) | 3-4 |
MATH 2133 | Calculus for Technology Programs II (A) | 3 |

Humanities (H)
Courses designated (H) 6

Natural Sciences (N) and Scientific Investigation (L)
Select one of the following: 4-5
- CHEM 1215 | Chemical Principles I (LN) |
- CHEM 1314 | Chemistry I (LN) |
- CHEM 1414 | General Chemistry for Engineers (LN) |
- PHYS 2014 | University Physics I (LN) | 4 |
- PHYS 2114 | College Physics II (LN) | 4 |

Social & Behavioral Sciences (S)
Select one of the following: 3
- SPCH 2713 | Introduction to Speech Communication (S) |

Additional General Education
Preparation for Calculus (A) (or three hours of (A) or (N) or (S) if MATH 1813 is not needed) 3

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 42-44

<table>
<thead>
<tr>
<th>College/Departmental Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty</td>
</tr>
<tr>
<td>MET 2223</td>
</tr>
<tr>
<td>MET 2313</td>
</tr>
<tr>
<td>MET 3543</td>
</tr>
</tbody>
</table>

Related Specialty
ENGR 1111 | Introduction to Engineering |
ENGR 1412 | Introductory Engineering Computer Programming |
or EET 1003 | Introduction to Microcomputer Programming |

ENGR 1124 | Fundamentals of DC Circuits |
ENGR 1214 | Fundamentals of AC Circuits |
ENS 2113 | Statics |
or GENT 2323 | Statics |

Select one of the following: 3
- MET 1123 | Technical Drawing and Basic CAD |
- ENGR 1322 | Engineering Design with CAD |
& MET 1121 | and Technical Graphics |
- ENGR 1332 | Engineering Design with CAD for MAE |
& MET 1121 | and Technical Graphics |
- ENSC 2141 | Strength of Materials Lab |
- ENGR 2421 | Engineering Data Acquisition Controls Lab |
- ENSC 3231 | Fluids and Hydraulics Lab |
- ENGR 2400 | Heat Transfer and Thermodynamics Lab |

Hours Subtotal 30-31

Major Requirements
ENS C 2143 | Strength of Materials |
or GENT 3323 | Strength of Materials |
MET 3433 | Basic Thermodynamics | 5 |
MET 3453 | Heat Transfer | 6 |
MET 3003 | Dynamics |
MET 3113 | Basic Instrumentation |
MET 3313 | Applied Fluid Mechanics |
MET 3343 | Physical Metallurgy |
MET 4003 | Machine Elements |
MET 4103 | Senior Design I |
or MET 4133 | Interdisciplinary Design I |
MET 4123 | Senior Design II |
or MET 4143 | Interdisciplinary Design II |
IEM 3503 | Engineering Economic Analysis |
or IEM 3513 | Economic Decision Analysis |

Select 9 hours of the following: 9
- MET 3353 | Plastics |
- MET 3413 | Fundamentals of Pneumatic Fluid Power |
- MET 3423 | Intermediate Hydraulic Fluid Power |
- MET 3573 | Advanced Production Processes |
- MET 3803 | Fundamentals of Mechatronics |
- MET 4023 | Advanced Mechanical Computer-Aided Design |
- MET 4033 | Applied Vibration and Acoustics |
- MET 4050 | Advanced Mechanical Design |
- MET 4113 | Practical Computational Fluid Dynamics |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET 4203</td>
<td>Finite Element Methods</td>
</tr>
<tr>
<td>MET 4173</td>
<td>Additive Manufacturing: Materials, Methods and Applications</td>
</tr>
<tr>
<td>MET 4303</td>
<td>Computer Integrated Manufacturing</td>
</tr>
<tr>
<td>MET 4313</td>
<td>Electrohydraulics and Motion Control</td>
</tr>
<tr>
<td>MET 4413</td>
<td>Ground Source Heat Pump Systems</td>
</tr>
<tr>
<td>MET 4503</td>
<td>Petroleum Operations</td>
</tr>
<tr>
<td>MET 4803</td>
<td>Mechatronics System Design</td>
</tr>
<tr>
<td>MET 4993</td>
<td>Mechanical Engineering Technology Practice</td>
</tr>
<tr>
<td>MET 4953</td>
<td>Industrial Assessment and Improvement</td>
</tr>
</tbody>
</table>

**Hours Subtotal:** 42

**Electives**

A total of 6 credit hours from the following with at least 3 being upper-division hours: Accounting, Astronomy, Biology, Chemistry, Computer Science, Engineering, Engineering Technology, Entrepreneurship and Emerging Enterprise, Finance, Geology, Legal Studies in Business, Management, Marketing, Mathematics, Physics and Statistics. ^7

**Hours Subtotal:** 6

**Total Hours:** 120-123

---

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.

---

**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 120. 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.

---

**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 2027.