# MECHANICAL ENGINEERING TECHNOLOGY, BSET

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about University Academic Regulation 3.1 ([http://catalog.okstate.edu/university-academic-regulations/#matriculation](http://catalog.okstate.edu/university-academic-regulations/#matriculation)).

**Minimum Overall Grade Point Average:** 2.00

**Total Hours:** 121-125

<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>
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</tbody>
</table>

**American History & Government**

Select one of the following:

- HIST 1103 | Survey of American History | 3 |
- HIST 1483 | American History to 1865 (H) | 3 |
- HIST 1493 | American History Since 1865 (DH) | 3 |
- POLS 1113 | American Government | 3 |

**Analytical & Quantitative Thought (A)**

- MATH 2123 | Calculus for Technology Programs I (A) | 3-4 |
- or MATH 2144 | Calculus I (A) | 3 |
- MATH 2133 | Calculus for Technology Programs II (A) | 3 |
- or MATH 2153 | Calculus II (A) | 3 |

**Natural Sciences (N) and Scientific Investigation (L)**

Select one of the following:

- CHEM 1215 | Chemical Principles I (LN) | 4 |
- CHEM 1314 | Chemistry I (LN) | 4 |
- CHEM 1414 | General Chemistry for Engineers (LN) | 4 |
- PHYS 2014 | University Physics I (LN) | 4 |
- PHYS 2114 | University Physics II (LN) | 4 |

**Social & Behavioral Sciences (S)**

Select one of the following:

- SPCH 2713 | Introduction to Speech Communication (S) | 3 |
- SPCH 3703 | Small Group Communication | 3 |
- SPCH 3723 | Business and Professional Communication | 3 |

**Additional General Education**

- MATH 1813 | Preparation for Calculus (A) (or three hours of (A) or (N) if MATH 1813 is not needed.) | 3 |

**Diversity (D) & International Dimension (I)**

May be completed in any part of the degree plan

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Select at least one Diversity (D) course

Select at least one International Dimension (I) course

**Hours Subtotal**: 45-47

**College/Departmental Requirements**

**Specialty**

- MET 2223 | Geometric Dimensioning and Tolerancing with Computer-Aided Design | 3 |
- MET 2313 | Fundamentals of Hydraulic Fluid Power | 3 |
- MET 3543 | Manufacturing Processes | 3 |

**Related Specialty**

- ENGR 1111 | Introduction to Engineering | 1 |
- ENGR 1412 | Introductory Engineering Computer Programming | 2 |
- or EET 1003 | Introduction to Microcomputer Programming | 1 |
- EET 1134 | Fundamentals of DC Circuits | 2 |
- EET 1214 | Fundamentals of AC Circuits | 2 |
- GENT 2323 | Statics | 3 |
- or ENSC 2113 | Statics | 3 |

Select one of the following:

- MET 1123 | Technical Drawing and Basic CAD | 7 |
- ENGR 1322 | Engineering Design with CAD | 3 |
- or MET 1121 | and Technical Graphics | 3 |
- ENGR 1332 | Engineering Design with CAD for MAE | 3 |
- & MET 1121 | and Technical Graphics | 3 |

**Hours Subtotal**: 26-27

**Major Requirements**

- GENT 3323 | Strength of Materials | 3 |
- or ENSC 2143 | Strength of Materials | 3 |
- MET 3433 | Basic Thermodynamics | 3 |
- or MET 4433 | Heat Transfer | 3 |
- MET 3003 | Dynamics | 3 |
- MET 3113 | Basic Instrumentation | 3 |
- MET 3313 | Applied Fluid Mechanics | 3 |
- MET 3343 | Physical Metallurgy | 3 |
- MET 4003 | Machine Elements | 3 |
- MET 4103 | Senior Design I | 3 |
- MET 4123 | Senior Design II | 3 |
- MET 4463 | Thermal Fluids Laboratory | 3 |
- IEM 3503 | Engineering Economic Analysis | 3 |
- or IEM 3513 | Economic Decision Analysis | 3 |

Select 9 hours of the following:

- MET 3223 | Geometric Dimensioning and Tolerancing | 9 |
- MET 3353 | Plastics | 3 |
- MET 3413 | Fundamentals of Pneumatic Fluid Power | 3 |
- MET 3423 | Intermediate Hydraulic Fluid Power | 3 |
- MET 3573 | Advanced Production Processes | 3 |
- MET 3803 | Fundamentals of Mechatronics | 3 |
- MET 4013 | Parametric Computer-Aided Modeling | 3 |
- MET 4023 | Advanced Mechanical Computer-Aided Design | 3 |
- MET 4033 | Applied Vibration and Acoustics | 3 |
- MET 4050 | Advanced Mechanical Design | 3 |
- MET 4113 | Practical Computational Fluid Dynamics | 3 |
### Graduation Requirements

1. A minimum average GPA of 2.20 is required in all courses with an engineering or engineering technology prefix.
2. A grade of ‘C’ or better is required in each prerequisite course for required engineering or engineering technology courses.
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 these changes do not result in semester credit hours being added or do not delay graduation.
4. The minimum requirements for the Mechanical Engineering Technology degree is 121. In cases where two course 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. If a student needed to take MATH 1513 and took EET 1003, CHEM 1215, and Math 2144 to meet the MET degree requirements then the student would need to take 125 credit hours to complete the degree.

### 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 2025.

### Course List

<table>
<thead>
<tr>
<th>Course Code</th>
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<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 4453</td>
<td>Applied Thermodynamics</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 4883</td>
<td>Tool Design</td>
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<tr>
<td>MET 4993</td>
<td>Mechanical Engineering Technology Practice</td>
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<tr>
<td>MET 4953</td>
<td>Industrial Assessment and Improvement</td>
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**Hours Subtotal**: 45

**Electives**


Math 1513 may be needed in preparation for Math 1813

**Hours Subtotal**: 5-6

**Total Hours**: 121-125

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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. These courses count towards the minimum average 2.20 graduation GPA requirement for Engineering and Engineering Technology courses.
3. If the elective course is from ARCH, BAE, CHE, CIVE, CMT, CET, ECEN, EET, ETM, ENGR, ENSC, FEMP, FPST, FSEP, GENG, GENT, IEM, MSE, MAE, MET or PETE then they count towards the minimum average 2.20 graduation GPA requirement for Engineering and Engineering Technology courses.
4. Prerequisite course for which a grade of ‘C’ or better is required for graduation.
5. MET 1223 also permitted.
6. MET 1213 or GENT 1223 also permitted.
7. GENT 1153 also permitted.
8. GENT 3433 is also permitted.
9. GENT 4433 is also permitted.
10. Students may need MATH 1513 as a prerequisite. Students taking this course can reduce the required electives by three.