

## BS: Mechanical Engineering Technology

*Many mechanical engineering technologists work on team projects within manufacturing-related areas such as testing, analysis, design and development of industrial and consumer products. Mechanical Engineering Technology graduates are well positioned to be employed in areas that permit rapid advancement into engineering management positions.*

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### Plan Recommendation Chart

|  | Hours        | Course Number or Related Information   |
|--|--------------|--|
| <b>Perspectives Area: Formal Reasoning and Communication</b> | <b>9</b>     |  |
| Mathematics and Formal Reasoning                             | 3            | MTH151 Calculus  |
| English Composition  | 3            | ENG111 English Composition (or ENG 109)                                      |
| Advanced Writing   | 3            | EGS215 Workplace Writing or ENG313 Technical Writing                         |
| <b>Perspectives Area: Science and Society</b>                | <b>15-16</b> |  |
| Social Sciences #1   | 3            | ECO201 Microeconomics or ECO202 Macroeconomics                               |
| Social Sciences #2   | 3            | APC/STC136 Intro to Interpersonal Communication                              |
| Natural Science #1   | 4            | PHY161 Physics for Life Science I or PHY181 College Physics I                |
| Lab  | 2            | CM144 College Chemistry Lab  |
| Natural Science #2   | 3-4          | CHM141/CHM 141R College Chemistry  |
| <b>Perspectives Area: Arts and Humanities</b>                | <b>6</b>     |  |
| Creative Arts  | 3            | Choice   |
| Humanities   | 3            | Choice   |
| <b>Perspectives Area: Global Citizenship</b>                 | <b>12</b>    |  |
| Ethical Citizenship and Leadership                           | 3            | Choice   |
| Intercultural Consciousness                                  | 3            | Choice   |
| Global Inquiry   | 3            | Choice   |
| Intercultural or Global                                      | 3            | Choice – any Miami Plan Global Inquiry <b>OR</b> Intercultural Consciousness |
| <b>Signature Inquiry</b>                                     | <b>9</b>     |  |
| Signature Inquiry #1   | 3            | Choice   |
| Signature Inquiry #2   | 3            | Choice   |
| Signature Inquiry #3   | 3            | Choice   |
| <b>Knowledge in Action</b>                                   | <b>3+</b>    |  |
| Senior Capstone  | 3            | ENT497/498 Senior Design Project   |
| Experiential Learning  | 0+           | ENT497 Senior Design Project   |

# 2025-26 Mechanical ENT Plan of Study (w/MET AAS)

An ENT AAS is a requirement for the Bach. degree and built into the 4 year plan. There may be AAS courses here that are only on the AAS DAR.

## Year One

| Fall Semester                          | Hours     | Spring Semester  | Hours        |
|--|-----------|--|--------------|
| ENT135 Computer-Aided Drafting         | 3         | ENT152 Computer-Aided Manufacturing I  | 3            |
| ENT151 Engineering Materials           | 3         | ENT271 Mechanics I: Statics  | 3            |
| ENG111 College Composition             | 3         | APC/STC136 Intro to Interpersonal Communication  | 3            |
| MTH124 Trigonometry                    | 3         | CIT163 Intro to Computer Programming or CIT153 Intro to C/C++ Programming  | 3            |
| PA Global Citizenship                  | 3         | PHY161 Physics for Life Science I OR PHY181+183 General Physics I (Note: PHY 181+183 means taking MTH 151 now, then MTH 251 & APC136 in the upcoming fall) | 4-5          |
| ENT137 Intro to Engineering Technology | 1         |  |              |
| <b>Total</b>                           | <b>16</b> | <b>Total</b>   | <b>16-17</b> |

## Year Two

| Fall Semester                              | Hours        | Spring Semester  | Hours        |
|--|--------------|--|--------------|
| ENT235 Computer-Aided Design               | 3            | ENT192 Circuit Analysis I  | 3            |
| ENT252 Computer-Aided Manufacturing II     | 3            | ENT278 Mechanics III: Analysis of Machine Components                       | 3            |
| ENT272 Mechanics II: Strength of Materials | 3            | EGS215 Workplace Writing or ENG313 Technical Writing                       | 3            |
| MTH151 Calculus I                          | 4            | ECO201 Principles of Microeconomics or ECO202 Principles of Macroeconomics | 3            |
| PA Global Citizenship                      | 3            | PHY162 Physics for Life Science II OR PHY182+184 General Physics II        | 4-5          |
| <b>Total</b>                               | <b>16-17</b> | <b>Total</b>   | <b>16-17</b> |

## Year Three

| Fall Semester                      | Hours     | Spring Semester                                | Hours        |
|------------------------------------|-----------|--|--------------|
| ENT301 Dynamics                    | 3         | ENT314 Mechanisms for Mech. Design             | 3            |
| ENT310 Fluid Mechanics             | 3         | ENT316 Project Management                      | 3            |
| ENT312 Thermodynamics & Heat Power | 3         | ENT404 Experimentation Techniques              | 3            |
| MTH251 Calculus II                 | 4         | STA301 Applied Statistics or STA261 Statistics | 3-4          |
| PA Global Citizenship              | 3         | MTH245 Differential Equations for Engineers    | 3            |
| <b>Total</b>                       | <b>16</b> | <b>Total</b>                                   | <b>15-16</b> |

## Year Four

| Fall Semester                             | Hours        | Spring Semester  | Hours     |
|---|--------------|--|-----------|
| ENT355 Intro to Finite Element Analysis   | 3            | ENT415 Heat Transfer w/Applications  | 3         |
| ENT478 Product Development in Engineering | 3            | ENT498 Senior Design Project   | 2         |
| ENT497 Senior Design Project              | 2            | MTH222 Intro to Linear Algebra or MTH231 Elements of Discrete Math (if MTH124 not taken) | 3         |
| CHM141/R+CHM144 College Chemistry w/Lab   | 5-6          | PA Humanities  | 3         |
| PA Creative Arts                          | 3            | PA Global Citizenship  | 3         |
| <b>Total</b>                              | <b>16-17</b> | <b>Total</b>   | <b>14</b> |

There is a minimum of 124 hours required to graduate. To finish in eight semesters, take Major or PA courses that also complete the SI Signature Inquiry requirement



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AND APPLIED SCIENCE

For advising questions, please contact your assigned advisor or Regional Academic Advising at [regadvising@MiamiOH.edu](mailto:regadvising@MiamiOH.edu) or 513-727-3440