MECHANICAL ENGINEERING BS  
2016 - 2017

CONTACT INFORMATION

• Honors College Advisor: Kathleen Alligood (alligood@gmu.edu)
• Senior Academic Advisor: Colin Reagle (creagle@gmu.edu)
• Program Director: Oscar Barton (obarton2@gmu.edu)

Once students begin attending Mason and declare a major they should see both their Honors College and their major department advisor for advising. Students must confirm their major requirements with their department advisor and with PatriotWeb’s Degree Evaluation tool.

Note for students in the Volgenau School: Students who get a warning that they will be terminated from the Volgenau School for GPA have one semester to either (1) meet the department’s requirements, or (2) change major; otherwise, they will have the “Terminated from Volgenau” designation placed on their transcript. Please refer to the university catalog, under VSE: “Termination from Major” for more information.

ADVISING SHEET

- Honors College Requirement
- Department Requirement
- College Requirement

<table>
<thead>
<tr>
<th>1st Year – 1st Semester (Fall)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>o HNRS 110: Research Methods (Grade C or better required)</td>
<td>4</td>
</tr>
<tr>
<td>♦ MATH 113: Analytic Geometry and Calculus I (Designated Placement Score Required)</td>
<td>4</td>
</tr>
<tr>
<td>♦ CHEM 211 &amp; CHEM 213 (or CHEM 211H &amp; CHEM 213) or CHEM 251: Chemistry for Engineers</td>
<td>4</td>
</tr>
<tr>
<td>♦ ECON 103 or ECON 103H: Contemporary Microeconomic Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

| Semester Total | 15 |

<table>
<thead>
<tr>
<th>1st Year – 2nd Semester (Spring)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ ME 151: Practicum in Engineering</td>
<td>2</td>
</tr>
<tr>
<td>♦ CS 112: Introduction to Computer Programming</td>
<td>4</td>
</tr>
<tr>
<td>♦ MATH 114: Analytic Geometry and Calculus II (prerequisite: &quot;C&quot; or better in MATH 113) or MATH 116: Analytic Geometry and Calculus II Honors</td>
<td>4</td>
</tr>
<tr>
<td>♦ PHYS 160/161 or PHYS 160H/161: University Physics I (Pre- or co-requisite MATH 114 or MATH 116)</td>
<td>4</td>
</tr>
</tbody>
</table>

| Semester Total | 14 |

<table>
<thead>
<tr>
<th>2nd Year – 1st Semester (Fall)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>o HNRS 122: Reading the Arts</td>
<td>3</td>
</tr>
<tr>
<td>o HNRS 240: Reading the Past or Department-approved humanities/social science elective</td>
<td>3</td>
</tr>
<tr>
<td>♦ ME 211: Statics</td>
<td>3</td>
</tr>
<tr>
<td>♦ MATH 213: Analytic Geometry and Calculus III or MATH 215¹: Honors Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>♦ PHYS 260/261 or PHYS 260H/261: University Physics II (Pre- or co-requisite</td>
<td>4</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>MATH 213 or MATH 215</td>
<td>3</td>
</tr>
<tr>
<td>Semester Total</td>
<td>16</td>
</tr>
</tbody>
</table>

**2nd Year – 2nd Semester (Spring)**

- **HNRS 131: Contemporary Society in Multiple Perspectives** (if not already taken) or Department-approved humanities/social science elective  
  **| Credits** |
  3 |
- ME 212: Solid Mechanics  
  **| Credits** |
  3 |
- ME 221: Thermodynamics  
  **| Credits** |
  3 |
- ME 231: Dynamics  
  **| Credits** |
  3 |
- MATH 214: Elementary Differential Equations (Prerequisite MATH 213 or 215) or MATH 216 (additional Prerequisite MATH 203)  
  **| Credits** |
  3 |

**Semester Total**  
15

**3rd Year – 1st Semester (Fall)**

- ECE 285: Electrical Circuit Analysis I  
  **| Credits** |
  3 |
- ME 311: Mechanical Experimentation I  
  **| Credits** |
  1 |
- ME 313: Material Science  
  **| Credits** |
  3 |
- ME 322: Fluid Mechanics  
  **| Credits** |
  3 |
- ME 341 or ME 342: Design Elective  
  **| Credits** |
  3 |
- ME 351: Analytical Methods in Engineering  
  **| Credits** |
  3 |

**Semester Total**  
16

**3rd Year – 2nd Semester (Spring)**

- HNRS 353: Technology in the Contemporary World (grade of C or better required)  
  **| Credits** |
  3 |
- ECE 286: Electrical Circuit Analysis II  
  **| Credits** |
  3 |
- ME 321: Mechanical Experimentation II  
  **| Credits** |
  1 |
- ME 323: Heat Transfer  
  **| Credits** |
  3 |
- ME 352: Entrepreneurship in Engineering  
  **| Credits** |
  3 |
- Math/Science Elective  
  **| Credits** |
  3 |

**Semester Total**  
16

**4th Year – 1st Semester (Fall)**

- Department-approved humanities/social science elective  
  **| Credits** |
  3 |
- Technical Elective  
  **| Credits** |
  3 |
- ME 443: Mechanical Design I  
  **| Credits** |
  3 |
- ME 453: Developing the Societal Engineer  
  **| Credits** |
  2 |
- Technical Elective  
  **| Credits** |
  3 |

**Semester Total**  
14

**4th Year – 2nd Semester (Spring)**

- ME 432: Control Engineering  
  **| Credits** |
  4 |
- ME 444: Mechanical Design II  
  **| Credits** |
  3 |
- Technical Elective  
  **| Credits** |
  3 |
- Technical Elective  
  **| Credits** |
  3 |
- Department-approved humanities/social science elective  
  **| Credits** |
  3 |

**Semester Total**  
16
NOTES

1. The Honors sections of these courses can be used to satisfy Honors College Requirement 3.
2. College requirements (VS) include 24 credits of department-approved, humanities and social science electives.
3. Students must complete each ME, ENGR, CS, MATH, PHYS and STAT course presented as part of the required 122 credits for the degree with a grade of C or better.
4. Furthermore, students must also complete any course required by the program that is a prerequisite to another course applicable to the degree with a grade of C or better.

HONORS REQUIREMENTS (see advising section of Honors College website for further details)

• All Honors College students earning a BS degree must complete Requirements 1 and 2 of the Honors College Curriculum, including taking 3 courses under Requirement 2. In general, it is expected that those students earning a BS will take HNRS 122, HNRS 131, and HNRS 240 to fulfill Requirement 2. If they do not, then they must complete the corresponding general education requirement with courses that are outlined in the University Catalog for your catalog year. (Note: HNRS 240 is only taught Fall semester.)
• Students earning a BS degree must complete Requirement 3 by taking two additional Honors courses beyond Requirements 1 and 2 of the Honors College Curriculum. These courses must be approved by your Honors College advisor in your Plan of Study.