### AEROSPACE ENGINEERING

<table>
<thead>
<tr>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
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<tbody>
<tr>
<td>MAE 2- Intro to Aerospace</td>
<td>Math 20E</td>
<td>MAE 131A- Solid Mechanics</td>
</tr>
<tr>
<td>MAE 8- Intro. To MatLab</td>
<td>MAE 30A- Statics and Intro to Dynamics</td>
<td>MAE 30B- Dynamics &amp; Vibrations</td>
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<tr>
<td><strong>MAE 21-Aerospace Materials Science</strong></td>
<td>GE (College requirement)</td>
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<td><strong>GE (College requirement)</strong></td>
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#### Year 1

**MAE 11-Thermodynamics**

**MAE 11A- Intro to Fluids**

**MAE 11B- Advance Fluids**

**MAE 105- Mathematical Physics**

**MAE 143A- Signals and Systems**

**MAE 143B- Linear Control**

**MAE 107- Computational Methods**

**TE (Technical Elective)**

**MAE 180A- Spacecraft Guidance**

**SE 160A- Aerospace Structural Mechanics I**

**SE 160B- Aerospace Structural Mechanics II**

#### Year 2

**MAE 101C- Heat Transfer**

**MAE 155A- Aerospace Design**

**MAE 155B- Aeronautics Design**

**MAE 104- Aerodynamics**

**MAE 175A- Engineering Lab**

**GE**

**MAE 142- Dynamics and Controls**

**GE**

**GE**

**MAE 113- Propulsion**

**TE**

#### Year 3

**MAE 101C- Heat Transfer**

**MAE 155A- Aerospace Design**

**MAE 155B- Aeronautics Design**

**MAE 104- Aerodynamics**

**MAE 175A- Engineering Lab**

**GE**

**MAE 142- Dynamics and Controls**

**GE**

**GE**

**MAE 113- Propulsion**

**TE**

**GE**

**GE**

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### MECHANICAL ENGINEERING

<table>
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<tr>
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<tbody>
<tr>
<td>MAE 3- Graphics and Design</td>
<td>Math 20E</td>
<td>MAE 131A- Solid Mechanics</td>
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<tr>
<td>MAE 8- Intro. To MatLab</td>
<td>MAE 30A- Statics and Intro to Dynamics</td>
<td>MAE 30B- Dynamics &amp; Vibrations</td>
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<td><strong>MAE 20- Materials Science</strong></td>
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#### Year 1

**MAE 11-Thermodynamics**

**MAE 11A- Intro to Fluids**

**MAE 11B- Advance Fluids**

**MAE 105- Mathematical Physics**

**MAE 143A- Signals and Systems**

**MAE 143B- Linear Control**

**MAE 107- Computational Methods**

**TE (Technical Elective)**

**MAE 180A- Spacecraft Guidance**

**SE 160A- Aerospace Structural Mechanics I**

**SE 160B- Aerospace Structural Mechanics II**

#### Year 2

**MAE 101C- Heat Transfer**

**MAE 155A- Aerospace Design**

**MAE 155B- Aeronautics Design**

**MAE 104- Aerodynamics**

**MAE 175A- Engineering Lab**

**GE**

**MAE 142- Dynamics and Controls**

**GE**

**GE**

**MAE 113- Propulsion**

**TE**

**GE**

**GE**

#### Year 3

**MAE 101C- Heat Transfer**

**MAE 155A- Aerospace Design**

**MAE 155B- Aeronautics Design**

**MAE 104- Aerodynamics**

**MAE 175A- Engineering Lab**

**GE**

**MAE 142- Dynamics and Controls**

**GE**

**MAE 113- Propulsion**

**TE**

**GE**

**GE**

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This academic plan assumes that you have completed all of the following courses at your previous college:

- Calculus I for Science and Engineering (MATH 20A), Calculus II for Science and Engineering (MATH 20B), Calculus and Analytic Geometry (MATH 20C), Differential Equations (MATH 20D), (MATH 18), Complete calculus-based physics series (PHYS 2A, B, C), and general chemistry (CHEM 6A for Mech and Aero; CHEM 6A, B, C for Env)

*If you have not completed all the courses listed above, this plan is not suitable for you.*

Please come and speak to an academic advisor as soon as possible to plan accordingly.

Courses offered in the recommended quarters will not overlap in day/times, midterms, finals, etc. with the other courses. However, if you move courses outside their recommended quarter, we cannot guarantee that they will not overlap with other courses. Deviation from this recommended academic plan could delay graduation. Therefore, please avoid moving courses around unless necessary.

*ASTERISK DENOTES A COURSE THAT MUST BE TAKEN AT LEAST BY THAT QUARTER TO GRADUATE IN THREE YEARS*
<table>
<thead>
<tr>
<th>Subject</th>
<th>Course #</th>
<th>Title</th>
<th>Prerequisites</th>
<th>Course is prerequisite for MAE ___:</th>
<th>Quarter/s Usually Offered</th>
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<tr>
<td>MAE</td>
<td>3</td>
<td>Intro to Eng. Graphics and Design</td>
<td>Phys 2A (or 4A)</td>
<td>150, 156A</td>
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<td>MAE</td>
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<td>Thermodynamics</td>
<td>Phys 2C, CHEM 6A</td>
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<tr>
<td>MAE</td>
<td>20</td>
<td>Elements of Materials Science</td>
<td>Phys 2A (or 4A), Chem 6A, Math 20C</td>
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<tr>
<td>MAE</td>
<td>30A</td>
<td>Statics &amp; Intro to Dynamics</td>
<td>Math 20C, Phys 2A</td>
<td>130B, 131A, 150, 160</td>
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<td>MAE</td>
<td>30B</td>
<td>Dynamics &amp; Vibrations</td>
<td>MAE 30A (130A)</td>
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<tr>
<td>MAE</td>
<td>310A</td>
<td>Linear Circuits</td>
<td>Math 20D, Math 18 (or 20F), Phys 2B</td>
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<td>MAE</td>
<td>101B</td>
<td>Advanced Fluid Mechanics</td>
<td>MAE 11 (or 110A), MAE 101A</td>
<td>101C</td>
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<td>101C</td>
<td>Heat Transfer</td>
<td>MAE 101A, MAE 101B, MAE 105</td>
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<tr>
<td>MAE</td>
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<td>Intro to Mathematical Physics</td>
<td>Phys 2A, Phys 2B, Math 20D</td>
<td>101C, 131B</td>
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<td>MAE</td>
<td>107</td>
<td>Computational Methods in Engineering</td>
<td>MAE 8, Math 18 (or 20F)</td>
<td>150 (unless SE 121 is taken)</td>
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<td>Solid Mechanics I</td>
<td>Math 20D, MAE 30A (130A)</td>
<td>131B, 156A, 160</td>
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<td>MAE</td>
<td>131B</td>
<td>Fundamentals of Solid Mechanics II</td>
<td>MAE 131A, MAE 105</td>
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<td>Math 20D, Math 20E, Math 18 (or 20F)</td>
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<tr>
<td>MAE</td>
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<td>Linear Control</td>
<td>MAE 143A</td>
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<td>Computer-Aided Design</td>
<td>MAE 3, MAE 107, MAE 30A (130A)</td>
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<td>MAE</td>
<td>156A</td>
<td>Fundamental Principles of Mech. Design I</td>
<td>MAE 3, MAE 30B (130B), MAE 131A, MAE 150, MAE 170</td>
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<td>MAE</td>
<td>156B</td>
<td>Fundamental Principles of Mech. Design II</td>
<td>MAE 101C, MAE 143B, MAE 156A, MAE 131B or 160</td>
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<td>W, S</td>
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<tr>
<td>MAE</td>
<td>160</td>
<td>Mechanical Behavior of Materials</td>
<td>MAE 20, MAE 30A (130A), MAE 131A</td>
<td>156B</td>
<td>W</td>
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<tr>
<td>MAE</td>
<td>170</td>
<td>Experimental Techniques</td>
<td>Phys 2C &amp; Phys 2CL (or MAE 40/140)</td>
<td>156A, 171A</td>
<td>F, S</td>
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