# Master of Engineering in Mechanical and Aerospace Engineering with Specialization in Energy/Environment/Economics (E3)

## Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>Engineering Analysis Courses</strong> (6)</td>
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<tr>
<td>MMAE 501</td>
<td>Engineering Analysis I</td>
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<tr>
<td>MMAE 502</td>
<td>Engineering Analysis II</td>
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<tr>
<td><strong>Core Courses</strong> (9)</td>
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<tr>
<td>CHE 543</td>
<td>Energy, Environment, and Economics</td>
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<td>Select a minimum of one course from the following:</td>
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<tr>
<td>CHE 503</td>
<td>Thermodynamics</td>
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<tr>
<td>CHE 553</td>
<td>Advanced Thermodynamics</td>
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<tr>
<td>MMAE 520</td>
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<tr>
<td>CHE 541</td>
<td>Renewable Energy Technologies</td>
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<tr>
<td>MMAE 522</td>
<td>Nuclear, Fossil-Fuel, and Sustainable Energy Systems</td>
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<tr>
<td>MMAE 523</td>
<td>Fundamentals of Power Generation</td>
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<tr>
<td>MMAE 524</td>
<td>Fundamentals of Combustion</td>
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<td><strong>Non-Core Courses</strong> (9)</td>
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<td>MMAE 524</td>
<td>Fundamentals of Combustion</td>
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<td>MMAE 525</td>
<td>Fundamentals of Heat Transfer</td>
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<tr>
<td>MMAE 526</td>
<td>Heat Transfer: Conduction</td>
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<tr>
<td>MMAE 527</td>
<td>Heat Transfer: Convection and Radiation</td>
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<tr>
<td>CHE 541</td>
<td>Renewable Energy Technologies</td>
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<tr>
<td>CHE 560</td>
<td>Statistical Quality and Process Control</td>
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<td>or MMAE 560 Statistical Quality and Process Control</td>
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<tr>
<td>ENVE 501</td>
<td>Environmental Chemistry</td>
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<td>ENVE 506</td>
<td>Chemodynamics</td>
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<td>ENVE 542</td>
<td>Physiochemical Processes in Environmental Engineering</td>
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<td>ENVE 551</td>
<td>Industrial Waste Treatment</td>
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<td>ENVE 561</td>
<td>Design of Environmental Engineering Processes</td>
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<td>Air Pollution Meteorology</td>
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<td>Design of Air Pollution Control Devices</td>
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<td>ENVE 578</td>
<td>Physical and Chemical Processes for Industrial Gas Cleaning</td>
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<td>ENVE 580</td>
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