Student Course Planning Models – Start Spring 2025

Course Offerings may differ depending on when students start and department resources. Students may take classes in any order they choose.

**Electives***

<table>
<thead>
<tr>
<th>Program</th>
<th>MSISE</th>
<th>MEM-Manufacturing</th>
<th>MEM-Occupational Safety and Ergonomics</th>
<th>MEM-Product Innovation</th>
<th>MEM-Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spring 2025</strong></td>
<td>Lean Systems*; Graduate Seminar (1 hour)</td>
<td>Lean Systems</td>
<td>Lean Systems</td>
<td>Lean Systems</td>
<td>Lean Systems</td>
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<tr>
<td><strong>Summer 2025</strong></td>
<td>Human Factors*</td>
<td>Human Factors</td>
<td>Human Factors</td>
<td>Human Factors</td>
<td>Human Factors</td>
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<tr>
<td><strong>Fall 2025</strong></td>
<td>Advanced Engineering Statistics; Elective*</td>
<td>Engineering and Technology Management; Six Sigma</td>
<td>Engineering and Technology Management; Fundamentals of Ergonomics</td>
<td>Engineering and Technology Management; Product Design, Development and Test</td>
<td>Engineering and Technology Management; Systems Engineering I</td>
</tr>
<tr>
<td><strong>Summer 2026</strong></td>
<td>Engineering Economic Systems</td>
<td>Project Management or Special Topics</td>
<td>Project Management or Special Topics</td>
<td>Project Management or Special Topics</td>
<td>Project Management or Special Topics</td>
</tr>
<tr>
<td><strong>Fall 2026</strong></td>
<td>Elective*</td>
<td>Elective*</td>
<td>Occupational Safety Engineering; Elective*</td>
<td>Elective*</td>
<td>Elective*</td>
</tr>
<tr>
<td><strong>Spring 2027</strong></td>
<td>Elective*</td>
<td>Control of the Manufacturing Floor and Processes; Elective*</td>
<td>Elective*; Elective*</td>
<td>Elective*</td>
<td>Elective*</td>
</tr>
</tbody>
</table>

**Total Hours**
- 31
- 30
- 30
- 30
- 30
- 30

*Sample Electives

- Decision Support Systems
- Simulation-Based Planning and Scheduling
- Multi-Paradigm Modeling and Simulation
- Adaptive Optimization
- Reliability Engineering
- Computer and Network Security
- Rocket Propulsion
- Supply Chain Management
- Organizational Leadership, Ethics, and Change
- Data Analytics and Modeling
- System Safety Engineering
- Cognitive Engineering and System Design
- Data Analytics
- Advanced Topics in Algorithms
- Dynamics of Flight
- Quantitative Analysis for Business Decisions