**MATERIALS SCIENCE AND ENGINEERING**
**MS DEGREE PLAN**

33 hours minimum

**NAME:** ____________________________  **STUDENT ID:** ____________________________

**MUST COMPLETE THE FOLLOWING REQUIRED CORE COURSES:**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Advisor Approval</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSEN 5310</td>
<td>Thermodynamics of Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 5360</td>
<td>Materials Characterization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6319</td>
<td>Quantum Mechanics for Materials Scientists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6324</td>
<td>Electronic Optical and Magnetic Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MUST MAINTAIN A 3.0 CORE GPA**

**MUST COMPLETE THREE (3) FROM WITHIN THIS ADVANCED COURSE LIST:**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Advisor Approval</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSEN 5320</td>
<td>Materials Science for Sustainable Energy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 5340</td>
<td>Advanced Polymer Science and Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 5361</td>
<td>Fundamentals of Surface and Thin Film Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 5370</td>
<td>Ceramics and Metals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 5375</td>
<td>Electronic Devices Based on Organic Solids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 5377</td>
<td>Computational Physics of Nanomaterials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6310</td>
<td>Mechanical Properties of Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6320</td>
<td>Fundamentals of Semiconductor Devices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6330</td>
<td>Phase Transformations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6340</td>
<td>Advanced Electron Microscopy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6350</td>
<td>Imperfections in Solids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSEN 6362</td>
<td>Diffraction Science</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MUST COMPLETE FOUR (4) APPROVED ELECTIVE GRADUATE COURSES:**

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Advisor Approval</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
</table>

**Student Signature**  **Date**  **Advisor Signature**  **Date**

Note: This form should be filled out and filed with the program office before finishing your first semester. Any non-MSEN course must be approved before registering for the course.