Nanoengineering (MR): Nanoelectronics and Nanophotonics Concentration

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Core Courses</td>
<td>12</td>
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Select four of the following courses:

- MSE 500 Modern Concepts in Materials Science
- MSE 565 Introduction to Nanomaterials
- MSE 791 Advanced Topics in Materials Science and Engineering
- ECE/CHE 568 Conventional and Emerging Nanomanufacturing Techniques and Their Applications in Nanosystems
- ISE 718 Micro/Nano-Scale Fabrication and Manufacturing
- MAE 536 Micro/Nano Electromechanical Systems

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Select a minimum of four of the following courses:

- ECE 530 Physical Electronics
- ECE/BME 518 Wearable Biosensors and Microsystems
- ECE/MSE 589 Solid State Solar and Thermal Energy Harvesting
- ECE 723 Optical Properties Of Semiconductors
- CHE 560 Chemical Processing Of Electronic Materials
- MSE 760 Materials Science in Processing of Semiconductor Devices
- MSE 771 Materials Science of Nanoelectronics

Technical Electives

- “Technical Electives” are approved in conjunction with the academic committee

| Technical Electives | 6 |

Total Hours

- “Technical Electives” may be ones in the MNAE program not used to satisfy other degree requirements or other technical courses approved by the Director of Graduate Program, Nanoengineering.