Materials Science and Engineering (MR)

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a minimum of 18 credit hours of 500- to 700-level MSE courses approved in conjunction with the academic committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional Courses</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Additional Courses&quot; are approved in conjunction with the academic committee and may come from graduate-level courses in MSE or other technical disciplines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

This degree program also provides an opportunity for the Directors of Graduate Programs (DGPs) at NC State to recruit rising juniors in their major to their graduate programs. However, permission to pursue an ABM degree program does not guarantee admission to the Graduate School. Admission is contingent on meeting eligibility requirements at the time of entering the graduate program.

Accelerated Bachelor's/Master's Degree Requirements

Undergraduate Requirements

The following undergraduate programs meet the undergraduate requirements for the Accelerated Bachelor's / Master's (ABM):


Double-Counted Courses

After taking 12 credit hours of double-counted courses in the BS degree, only 18 hours remain for completion of either master's degree in the fifth year.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE/NE 409/ME 509</td>
<td>Nuclear Materials</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 440/540</td>
<td>Processing of Metallic Materials</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 445/545</td>
<td>Ceramic Processing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 455/555</td>
<td>Polymer Technology and Engineering</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 456/556</td>
<td>Composite Materials</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 460/560</td>
<td>Microelectronic Materials</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 465/565</td>
<td>Introduction to Nanomaterials</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MSE 480/580</td>
<td>Materials Forensics and Degradation</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Faculty Professors

Harald Ade
Aram Amassian
David Aspnes
Salah M.A. Bedair
Donald Brenner
Ramon Collazo
Jerome Cuomo
Jan Genzer
Reza Ghiladi
Ola Harrysson
Douglas Irving
Jacob L. Jones
Djamel Kaoumi
Frederick Kish
Thomas LaBean
James D. Martin
Korukonda Murty
John F. Muth
Jagdish Narayan
Roger Jagdish Narayan
Gregory N. Parsons
Melissa Pasquinelli
Zlatko Sitar
Franky So
Richard Spontak
Martin Thuo
Joseph B. Tracy
Daryoosh Vashaee
Yaroslava Yingling
Xiangwu Zhang
Yong Zhu

**Emeritus Faculty**
Charles Balik
Elizabeth Dickey
Carl C. Koch
Yuntian Zhu

**Associate Professors**
Veronica Augustyn
Rajeev Gupta
Jagannadham Kasichainula
Nina Wisinger

**Assistant Professors**
Bharat Gwalani
Timothy Horn
Yin Liu
Martin Seifrid
Ruijuan Xu

**Research Professor**
Christopher Rock

**Teaching Assistant Professor**
Alexey Gulyuk

**Adjunct Professors**
Barry Farmer
John Prater

**Adjunct Associate Professor**
Charles Guarnieri