# Materials Science and Engineering

## Year One - Tarrant County College

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2413, Calculus I</td>
<td>4 MATH 2414, Calculus II</td>
</tr>
<tr>
<td>CHEM 1411, General Chemistry I</td>
<td>4 CHEM 1412, General Chemistry II</td>
</tr>
<tr>
<td>ENGL 1310, Composition I</td>
<td>3 PHYS 2425, University Physics I</td>
</tr>
<tr>
<td>ENGR 1201, Introduction to Engineering</td>
<td>3 ENGL 2311, Technical &amp; Business Writing</td>
</tr>
<tr>
<td>History Core Course</td>
<td>3 History Core Course</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>Total Hours</strong></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

### Summer

- Government / Political Science Core Course: 3
- Creative Arts Core Course: 3
- **Total Hours**: 6

## Year Two - Concurrent Enrollment

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
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</thead>
<tbody>
<tr>
<td>MATH 2415, Calculus III</td>
<td>4 Language Philosophy Culture Core Course</td>
</tr>
<tr>
<td>PHYS 2426, University Physics II</td>
<td>3 MTSE 3000, Fundamentals I</td>
</tr>
<tr>
<td>ENGR 2301, Engineering Mechanics I</td>
<td>3 MTSE 3001, Fundamentals II</td>
</tr>
<tr>
<td>Government / Political Science Core Course</td>
<td>3 MATH 3410, Differential Equations</td>
</tr>
<tr>
<td>Social Behavioral Science Core Course</td>
<td>3 PHYS 3010, Modern Physics</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>Total Hours</strong></td>
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<tr>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

## Year Three - UNT

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSE 3010, Bonding and Structure</td>
<td>3 MTSE 3050, Mechanical Properties</td>
</tr>
<tr>
<td>MTSE 3020, Micro and Characterization</td>
<td>3 MTSE 3060, Phase Transformations</td>
</tr>
<tr>
<td>MTSE 3030, Thermo &amp; Phase Diagrams</td>
<td>3 MTSE 3070, Electrical, Optical, &amp; Magnetic Props.</td>
</tr>
<tr>
<td>MTSE 3040, Transparent Phenomena</td>
<td>3 MTSE 3080, Materials Processing</td>
</tr>
<tr>
<td>MTSE 3090, Laboratory I</td>
<td>1 MTSE 3100, Laboratory II</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>Total Hours</strong></td>
</tr>
<tr>
<td>13</td>
<td>13</td>
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</tbody>
</table>

## Year Four - UNT

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSE 4010, Physical Metallurgy Principles</td>
<td>3 MTSE Advanced Level Elective</td>
</tr>
<tr>
<td>MTSE 4030, Ceramic Science &amp; Engineering</td>
<td>3 MTSE Advanced Level Elective</td>
</tr>
<tr>
<td>MTSE 4060, Materials Selection and Perormance</td>
<td>3 MTSE 4050, Polymer Science &amp; Engineering</td>
</tr>
<tr>
<td>MTSE 4090, Senior Design I</td>
<td>3 MTSE 4100, Senior Design II</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>Total Hours</strong></td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Black = Tarrant County College

Green = UNT

Total Degree Hours: 123