**Bachelor of Science in Materials Science and Engineering†**

**Department of Materials Science and Engineering**

Mapping of Courses and Activities to Program Outcomes

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<tr>
<th>Principal Program Outcome</th>
<th>Courses</th>
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<tr>
<td>PO1. Knowledge of math, science and engineering</td>
<td>CHEM151, ENGR102, MATH124/5, PHYS141, MATH129, MSE110, MSE 222, MATH223R, PHYS241, MATH254, ECE207, Science Elective, MSE 345, MSE 365, MSE 409, MSE 415, MSE 480, ENGR 498, MSE 498</td>
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<td>PO2. Knowledge of MSE, interrelationship between processing, microstructure, properties and performance</td>
<td>MSE222, MSE345, MSE 360L, MSE365, MSE223R, MSE223L, 4 MSE Technical Electives in various areas of specialization, MSE 409, MSE480, MSE415, ENGR 498, MSE 498</td>
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<td>PO3. Work in multidisciplinary teams</td>
<td>MSE 223R, MSE223L, MSE350, MSE360L, MSE 365, MSE 480, MSE or ENGR498, 3 Technical Electives</td>
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<td>PO4. Communicate effectively</td>
<td>ENGL102, Tier II Arts or Humanities (4 and 6), MSE 223R, MSE 223L, MSE 360L, MSE 365, MSE 480, ENGR 498, MSE 498</td>
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<td>PO5. Use of modern tools</td>
<td>MSE 223R, MSE223L, MSE 345, MSE350, MSE360L, MSE480, MSE415 (These also fit into another category, such as 2 or 3), ENGR 498, MSE 498</td>
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<td>PO6. Life-long learning, data bases and professional society offerings</td>
<td>2 Tier I INDV, 2 Tier 1 TRAD, Tier II INDV, Tier II Arts or Humanities, MSE 223R, MSE 223L, MSE 360L, MSE 480, ENGR 498, MSE 498</td>
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<td>PO7. Lifelong learning, responsibility to profession and society</td>
<td>MSE 223R, ENGR 498, MSE 498</td>
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