<table>
<thead>
<tr>
<th>MS in MATERIALS SCIENCE AND NANO ENGINEERING (WITH THESIS) PROGRAM OUTCOMES</th>
<th>NATIONAL QUALIFICATIONS OF RELATED FIELD*</th>
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<tbody>
<tr>
<td><strong>1</strong> Develop the ability to use critical, analytical, and reflective thinking and reasoning</td>
<td>A1 A2 A3 A4 B1 B2 B3 B4 C1 C2 C3 C4 C5 C6 C7 C8 D1 D2 D3 D4 D5 D6 D7 D8 E1 E2 E3 E4 E5 E6 E7 E8 F1 F2 F3 F4</td>
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<td><strong>2</strong> Reflect on social and ethical responsibilities in his/her professional life.</td>
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<td><strong>3</strong> Gain experience and confidence in the dissemination of project/research outputs</td>
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<td><strong>4</strong> Work responsibly and creatively as an individual or as a member or leader of a team and in multidisciplinary environments.</td>
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<td><strong>5</strong> Communicate effectively by oral, written, graphical and technological means and have competency in English.</td>
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<td><strong>6</strong> Independently reach and acquire information, and develop appreciation of the need for continuously learning and updating.</td>
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<td><strong>7</strong> Design and model engineering systems and processes and solve engineering problems with an innovative approach.</td>
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<td><strong>8</strong> Establish experimental setups, conduct experiments and/or simulations.</td>
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<td><strong>9</strong> Analytically acquire and interpret data.</td>
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<td><strong>10</strong> Apply a broad knowledge of structure &amp; microstructure of all classes of materials, and the ability to use this knowledge to determine the material properties.</td>
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<td><strong>11</strong> Apply a broad understanding of the relationships between material properties, performance and processing.</td>
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<td><strong>12</strong> Apply a broad understanding of thermodynamics, kinetics, transport phenomena, phase transformations and materials aspects of advanced technology.</td>
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<td><strong>13</strong> Demonstrate hands-on experience using a wide range of materials characterization techniques.</td>
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<td><strong>14</strong> Demonstrate the use of results from interpreted data to improve the quality of research, a product, or a product in materials science and engineering.</td>
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A: KNOWLEDGE, Theoretical & Factual
B: SKILL, Cognitive & Applied
C: COMPETENCY, Working Independently & Taking Responsibility
D: COMPETENCY, Ability to Learn
E: COMPETENCY, Communication & Social Competencies
F: COMPETENCY, Field Specific