

| | | MSc-MAT PROGRAM OUTCOMES | NATIONAL QUALIFICATIONS OF RELATED FIELDS | | | | | | | | | | | | | | | | |
|------------------|----|--|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| | | | A1 | A2 | B1 | B2 | B3 | C1 | C2 | C3 | D1 | E1 | E2 | E3 | E4 | F1 | F2 | F3 | |
| ALL PROGRAMS | 1 | Develop the ability to use critical, analytical, and reflective thinking and reasoning | | | | | | | | | X | X | X | | | | | | |
| | 2 | Reflect on social and ethical responsibilities in in his/her professional life. | | | | | | | | | | | | | | X | | | |
| | 3 | Gain experience and confidence in the dissemination of project/research outputs | | | | | | | | | | X | | | | | | | |
| | 4 | Work responsibly and creatively individually or as a member or a leader of a team and in multidisciplinary environments. | | X | | | | X | X | X | | | | | | | | | X |
| | 5 | Communicate effectively by oral, written, graphical and technological means and have competency in English. | | | | | | | | | | X | | X | X | | | | |
| ENGINEERING | 7 | Design and model engineering systems and processes and solve engineering problems with an innovative approach. | | | X | | X | | X | | | | X | | | | | X | |
| | 8 | Establish experimental setups, conduct experiments and/or simulations | | | X | | X | | | | | | | | | | | | |
| | 9 | Analytically acquire and interpret data. | | | X | X | | | | | | | | | | | | | |
| PROGRAM SPECIFIC | 10 | Apply a broad knowledge of structure & microstructure of all classes of materials, and the ability to use this knowledge to determine the material properties. | X | X | X | X | X | X | | | | | | | | X | | | |
| | 11 | Apply a broad understanding of the relationships between material properties, performance and processing. | X | X | X | X | X | X | | | | | | | | X | | | |
| | 12 | Apply a broad understanding of thermodynamics, kinetics, transport phenomena, phase transformations and materials aspects of advanced technology. | X | X | X | X | X | | | | | | | | | | | | |
| | 13 | Demonstrate hands-on experience using a wide range of materials characterization techniques. | X | X | X | X | X | X | | | | | | | | X | | | |
| | 14 | Demonstrate the use of results from interpreted data to improve the quality of research, a product, or a product in materials science and engineering. | X | X | X | X | X | X | | | | | | | | X | | X | |