

Minor Area in Materials Engineering

Title of the module: Materials Engineering

Type of the module: Minor Area

Maximum number of students the module can accommodate per year: 20 students

Disciplines eligible to apply for the module: All B. Tech. disciplines

List of courses that constitute the 20-credit module:

Core Courses

1. APL 102: Introduction to Materials Science (3-0-2)

Department Electives

1. AMD 310: Mini Project (0-0-6)
2. AML 736: Multiscale Modelling of Crystalline Materials (3-0-0)
3. AML 750: Modern Engineering Materials (3-0-0)
4. AML 851: Fracture Mechanics (3-0-0)
5. AML 852: Engineering Failure Analysis and Prevention (3-0-0)
6. AML 855: Phase Transformation (3-0-0)
7. AML 856: Electron Metallography and Electron Diffraction (3-0-0)
8. AML 883: Selection and Properties of Engineering Materials (3-0-0)
9. AML xxx: Mechanical Behaviour of Materials (New course)
10. AML xxx: Biomaterials (New course)

Non Departmental Electives

1. MEL 780: Casting technology (3-0-2)
2. MEL 787: Welding and allied processes (3-0-2)
3. MEL 791: Composite material and processing (3-0-2)
4. PTL 702: Polymer processing (3-0-0)
5. MEL 769: Metal forming analysis
6. MEL xxx: (UG) Metal forming
7. MEL xxx: Advances in forming
8. MEL xxx: Advances in Welding