

## Materials Characterization and selection (Metallurgy)

Course name	Credit units
Advanced Solidification and its Thermodynamic Fundamentals	2
Simulation in Materials Engineering	2
Research Methods in Engineering Sciences	2
Creep phenomenon in materials	2
Fracture Mechanics and Fatigue in Materials	2
Damage Mechanisms	2
Metallurgical Phase Transformations	2
Lab of Advanced Characterization and Analysis methods In Materials study	2
Advanced Characterization and Analysis methods In Materials study	2
Diffusion in Solids	2
Special Topics In materials Engineering	2
Materials Selection and Processes in Design and Manufacturing of New Products	2
Advanced Non-Destructive Methods	2
Advanced Quality Control	2
Advanced Welding Metallurgy	2
Inspection of Oil, Gas, and Petrochemical Industries Equipment	2
Errors and Uncertainty in Measurement and Research of Materials	2
Advanced Powder Metallurgy	2
Advanced Surface Engineering	2
Advanced Nanotechnology	2
Composites	2
Advanced Materials and Manufacturing Processes	2
Theory of Dislocations	2
Advanced Solid State Physics	2
Advanced Joining Processes	2
Design and Technology of as-Cast Parts	2
Advanced Thermodynamics of Materials	2
Advanced Polymers	2
Advanced Engineering Mathematics	2
Strengthening Mechanisms in Materials	2
Ultra-Fine Grains and Nanostructured Materials	2
Plastic Deformation in Metallic Materials	2
Entrepreneurship in Materials Engineering- Materials Characterization and Selection (Metallurgy)	2
Internship	2
Seminar	1