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ME 228 (JAN) 3:0

Materials and Structure Property Correlations

Instructor(s): Satish V Kailas, Koushik Viswanathan

Course description:
Atomic structure of materials, atomic bonding, crystal structure. point, line and area defects in crystal structure. Solidification of metals, phase diagrams, Dislocation concepts of plastic deformation, critical resolved shear stress yeling interactions between dislocations and work hardening, Recovery, recrystallization and grain growth. Fracture-microscopic descriptions. Mechanisms of metal deformation, processing maps Concepts of bio-materials. Natural and synthetics, fracture and fatigue of bio-materials.

Prerequisites: Raghavan,V.,Materials Science and Engineers,Prentice Hall,1979. Davidge

Resources:

Outcomes:

Additional information:

Course website: