

**Course Name:**

Micromechanics of Defects in Solids

Course Number: 20-140	Credit: 3
Program: Graduate	Course Type: Technical Selective
Prerequisite: -	Corequisite: -

Course Description (Objectives):

The main objective of this course is to study the theory of eigenstrain for analyzing stress and strain in materials containing inclusions and inhomogeneities. Within this framework, concepts such as periodic response, Fourier series and transform, Green's function, and analytical methods for isotropic inclusions and ellipsoidal inhomogeneities are examined.

Course Content (outline):

- Chapter 1: Theory of Eigenstrain
- Chapter 2: Isotropic Inclusion
- Chapter 3: Ellipsoidal Inhomogeneity

References:

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