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ME 225 (AUG) 1:0

Introduction to Soft Matter

Instructor(s): Alope Kumar

Course description:

Introductory course on soft matter/complex fluids. A review of preliminaries of continuum mechanics, which are required for dealing with soft matter. General concepts of viscous and elastic deformations and relevant models. Experimental approaches to soft materials such as creep response and stress relaxation.

Prerequisites:

Resources:

1. Bird, R.B., Armstrong, R.C., Hassager, O., Dynamics of Polymeric Fluids, John Wiley and Sons
2. Joseph, D.D, Fluid Dynamics of Viscoelastic Liquids, Spinger-Verlag, 1990
3. Gurtin, M.E., Fried, E., Anand, L. The Mechanics and Thermodynamics of Continua, Cambridge University Press 2011
4. R.C.
5. Hassager

Outcomes:

Additional information:

Course website: