

MS 133 (Part 2)

Kinetic Processes in Materials: Complex Fluids

Spring Quarter 2016

142 Keck

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Room #231 Spalding x 4138
Room #110 Schlinger x 4138
Room 223 Spalding x 2325

References:

Doi & Edwards, *Dynamics of Complex Fluids* (1986).

De Gennes, *Scaling Concepts in Polymer Physics* (1979).

Original literature to be distributed in class.

Tentative Outline of this half of the Course:

Introduction to Complex Fluids and their relationship to Material
Dynamics of Entangled Polymers
Dynamics of Rod-Like Polymers
Liquid Crystals; the Isotropic-Nematic Transition
Dynamics of Immiscible Liquid-Liquid Mixtures

Homework Assignments:

Two assignments will be given. Your grade for this half of the course will be based on these two assignments.

You may **not** refer to previous years' homework or copy from one another.

You may consult with one another, however, the work you submit must represent your own understanding.