



PRELIM NOTE: For polymer interested PhD students, it is expected that all students know and understand all material from the Polymer/Soft Materials Core Courses (MSE 525 and MSE 597-007) and the following textbooks for the preliminary exam:

- Introduction to Polymers, R.J. Young and P.A. Lovell
- Principles of Polymer Engineering, N.G. McCrum, C.P Buckley, C.B. Bucknall
- Soft Condensed Matter, R.A.L. Jones
- Introduction to Polymer Viscoelasticity, M.T. Shaw, W.J. MacKnight

Other books of use that should be known for specific fields are listed below:

- (Chemistry) Principles of Polymerization, G. Odian
- (Physics/Physical Chemistry) Polymer Physics, M. Rubinstein and R.H. Colby
- (Mechanical Properties) Mechanical Properties of Solid Polymers, I.M. Ward and J. Sweeney
- (Soft Materials/Surface/Colloid) Intermolecular and Surface Forces, J.N. Israelachvili