

Department of Chemical Sciences

Graduate Course on

Biophysics and Biochemistry

Course Content

1. What's inside a cell and how it functions: An introduction to cell biology.
2. Molecular building blocks: Proteins, DNA/RNA, lipids, other molecules
3. An introduction to statistical mechanics and thermodynamics which governs molecular and cellular functions
4. Mesoscopic forces shaping molecules, interactions and transport
5. Diffusion and dissipation in cellular systems
6. Transitions in macromolecules: Protein folding, assembly and interaction
7. Enzymes and motors
8. Membrane proteins
9. Neurons and nerve impulses
10. Modern biophysical techniques: a few examples

Instructors: S. Maiti

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Venue: Lecture room AG80

Days: Mondays, Wednesdays and Fridays

Time: 11:30 hr to 13:00 hr

NOTE: *The first lecture starts on TUESDAY, August 11, 2015.*