About Biochem 104b

The course will provide an introduction to the physico-chemical principles that govern the structure, dynamics and function of biological macromolecules. We will then use those principles to look at and understand the structural features and physical properties of proteins and nucleic acids.

Biochem 104b deals with a topic that is a very active area of research. Many of the fundamental driving forces that shape macromolecules are only partially understood. In addition, biological macromolecules are very large and complex systems and so might evade rigorous quantitative analysis even if the basic principles were known.

Therefore, the course will make extensive use of simple models and will compare the behavior predicted from those models with experimental observations of real macromolecular systems. The overall goal is to provide students with a solid and quantitatively-reasoned intuition about why proteins and nucleic acids behave like they do.