

Protein Structure, Function and Bioinformatics
Università di Bologna, February 2014

The goal of the course is to discuss with the students the basic principles of protein structure, and function; and the kinds of data available and how to access and analyse them.

February 3	First Session	Principles of Protein Structure (including ligation and conformational change)
February 3	Second Session	Protein Function <i>Protein Structure Prediction – Practical</i>
February 4	First Session	Thermodynamics and Kinetics
February 4	Second Session	Enzyme Mechanisms and Drug Design <i>Databases and Software – practical</i>
February 5	First Session	Protein Evolution
February 5	Second Session	How do Proteins Acquire Novel Functions? (Including directed evolution and protein design) <i>Protein Structure Prediction – Practical</i>
February 6	First Session	Metabolic Pathways and Their Evolution
February 6	Second Session	Regulation
February 7	First Session	Putting it all together
February 7	Second Session	Exam