Summary
Introduction to the application of the notions and methods of theoretical physics to problems in biology.

Content
1. Introduction to polymer theory: on and off-lattice polymers; statistical properties; exact, numerical and approximate results; correlation length; self-avoidance.
2. Interacting polymers: experiments and models; analytical and numerical solutions of the models; phase diagram.
3. Proteins: their role in biology; basic components; experimental results; models; analytical and numerical results.

Learning Prerequisites
Recommended courses
Course of Statistical Physics

Learning Outcomes
By the end of the course, the student must be able to:
• Solve problems in polymers statistical physics

Transversal skills
• Assess one's own level of skill acquisition, and plan their on-going learning goals.

Teaching methods
Ex cathedra. Exercises in class

Assessment methods
oral