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