PHYS-466

Topics in biophysics and physical biology

Manley Suliana

Cursus	Sem.	Type
Ing.-phys	MA2, MA4	Opt.
Physicien	MA2, MA4	Opt.

Language of teaching	English
Credits	3
Session	Summer
Semester	Spring
Exam	During the semester
Workload	90h
Weeks	14
Hours	**3 weekly**
Lecture	2 weekly
Exercises	1 weekly
Number of positions	

Summary

This course provides exposure to research in biophysics and physical biology, with emphasis on the nature of scientific breakthroughs, and using critical reading of scientific literature. Each week, we will discuss the research of one recipient of the Max Delbruck Prize in Biological Physics.

Content

What constitutes a scientific breakthrough? An outstanding contribution to a scientific field? We will examine these questions by delving into the research of several recipients of the Max Delbruck Prize in Biological Physics, awarded bi-annually/annually by the American Physical Society. Course materials include video lectures by the prize recipients, as well as scientific literature. Students will have the opportunity to analyze, synthesize, and present synopses of chosen areas in Biological Physics.

Learning Outcomes

By the end of the course, the student must be able to:

- Discuss
- Reason
- Argue
- Present
- Synthesize
- Analyze

Transversal skills

- Access and evaluate appropriate sources of information.
- Make an oral presentation.
- Summarize an article or a technical report.
- Write a literature review which assesses the state of the art.

Assessment methods

Continuous assessment includes quizzes, and oral and written contributions from students.

Resources

Moodle Link

- https://go.epfl.ch/PHYS-466