



OPIS PREDMETA / SUBJECT SPECIFICATION

Predmet:	Izbrana poglavja iz biofizike
Subject Title:	Selected topics in biophysics

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
FIZIKA PHYSICS		1 ali 2	1 ali 2

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. Vaje Lab. Work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30	20				250	10

Nosilec predmeta / Lecturer: Aleš Fajmut

Jeziki / Predavanja / Lecture: slovenski/Slovenian in/and angleški s slovenskim prevodom/English with translation in Slovenian

Languages: Vaje / Tutorial:

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Ni posebnih zahtev.

Prerequisites:

No special prerequisites.

Vsebina:

Študenti se udeležijo seminarских predavanj in kolokvijev gostujočih znanstvenikov raziskovalcev, ki jih organizirata Slovensko biofizikalno združenje in Oddelek za fiziko FNM UM, poletnih šol, delavnic ter drugih simpozijev s področja biofizike. Študenti se aktivno udeležijo ene konference, delavnice ali poletne šole, ki jo potrdi Oddelek za fiziko FNM UM.

Oddelek za fiziko FNM UM potrjuje in priporoča aktivno udeležbo na Mednarodni poletni šoli »Supramolecular Structure and Function«, ki jo vsake tri leta organizirata Institut Ruđer Bošković iz Zagreba in Hravško biofizikalno združenje, in bo v letu 2009 že 10. po vrsti. Poletna šola je sponzorirana in priznana s strani IUPAB, UNESCO in EBSA.

Contents (Syllabus outline):

Students attend seminar lectures and colloquia of visiting researchers that are organised by the Slovenian Biophysical Society and the Department of Physics FNM UM, summer schools, workshops, and other symposia from the field of Biophysics. Students actively attend one of the summer schools, conferences or workshops, which are approved by the Department of Physics FNM UM.

Department of Physics FNM UM approves and recommends active participation at the International Summer School "Supramolecular Structure and Function" which is each three years organised by the Ruđer Bošković Institute from Zagreb and the Croatian Biophysical Society. In 2009 the Summer School will be organized for the 10th time. This Summer School is sponsored and approved by the IUPAB, UNESCO and EBSA.

Temeljni študijski viri / Textbooks:

- 1) G. Pifat-Mrzljak (ed.), Supramolecular structure and function 7, Springer, 2001.
- 2) G. Pifat-Mrzljak (ed.), Supramolecular structure and function 8, Springer, 2004.
- 3) G. Pifat-Mrzljak (ed.), Supramolecular structure and function 9, Springer, 2007.

Cilji:

- Razumeti osnovne ideje na širokem področju biofizike ter povezave z drugimi področji
- Pridobiti dobro razgledanost nad aktualnimi tematikami sodobne biofizike

Objectives:

- Understanding the basic ideas in the broad domain of biophysics and the links to other fields
- Gaining good overview on the topical themes of modern biophysics

Predvideni študijski rezultati:

Znanje in razumevanje:

- Poglobljeno razumevanje idej, metod in rezultatov sodobne biofizike

Prenesljive/ključne spretnosti in drugi atributi:

- sposobnost predavitve pridobljenih raziskovalnih izsledkov s področja biofizike v obliki javnih predstavitev na znanstvenih srečanjih
- poglobljeno razumevanje teoretskih in metodoloških konceptov z različnih področij moderne biofizike
- mednarodna komunikativnost v vrhunskem znanstvenem in strokovnem okolju

Metode poučevanja in učenja:

Predavanja, seminar

Načini ocenjevanja:

- Seminaraska naloga
- Ustna predstavitev naloge

Delež (v %) /
Weight (in %)50
50**Intended learning outcomes:**

Knowledge and Understanding:

- Deeper understanding of ideas, methods and results of modern biophysics

Transferable/Key Skills and other attributes:

- Capability of public presentation of research results from the field of biophysics to scientific community at the meetings
- Deeper understanding of theoretical and methodological concepts from different areas of modern biophysics
- Capability of communication in the top-level scientific community

Learning and teaching methods:

Lectures, seminar

Assessment:

- Seminar work
- Oral presentation of the seminar work

Obveznosti študentov:*(pisni, ustni izpit, naloge, projekti)*

- Udeležba predavanj
- Izdelava seminarske naloge in njena predstavitev na seminarju, konferenci, simpoziju, delavnici ali poletni šoli.

Students' commitments:*(written, oral examination, coursework, projects):*

- To attend the lectures
- To write the coursework and present it at the seminar, conference, symposium, workshop or summer school.