



Univerza v Mariboru

Medicinska fakulteta

OPIS PREDMETA / SUBJECT SPECIFICATION

Predmet:	MOLEKULARNA BIOLOGIJA
Subject Title:	MOLECULAR BIOLOGY

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
BIOMEDICINSKA TEHNOLOGIJA BIOMEDICAL TECHNOLOGY		1	1, 2

Univerzitetna koda predmeta / University subject code: 1004

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Lab work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
20	40		15		225	10

Nosilec predmeta / Lecturer: Red. prof. dr. Uroš POTOČNIK

Jeziki / Predavanja / Lecture: Slovenski / Slovenian
Languages: Vaje / Tutorial: Slovenski / Slovenian

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

Kandidat mora imeti pred vpisom ustrezno znanje iz naravoslovnih ved z ustreznega področja na nivoju univerzitetnega študija.

Prerequisites:

Prior to entering, the candidate for postgraduate program must have an appropriate knowledge and understanding of bioscience (biology, chemistry, physics, mathematics) on the university level.

Vsebina:

1. Uvod v molekularne metode v medicini
2. Genomika v klinični praksi
3. Molekularne metode odkrivanja novih zdravil
4. Bioinformatika v molekularni medicini
5. Genska regulacija v bolezenskih procesih

Contents (Syllabus outline):

1. Introduction to molecular medicine
2. Genomics in clinical practice
3. Molecular approaches to drug discovery
4. Bioinformatics in molecular medicine
5. Gene regulation in disease states

Temeljni študijski viri / Textbooks:

1. **Molecular Cell Biology**; Darnell, Lodish and Baltimore (Scientific American Books, W.H. Freeman and Company).
2. **Human Molecular Genetics 2**. 2nd ed. Strachan, Tom and Read, Andrew P. Oxford, UK: [BIOS Scientific Publishers Ltd](http://www.bioscientificpublishers.com); 1999 (available free of charge on Pubmed under Bookshelf: <http://www.ncbi.nlm.nih.gov/entrez/query>)

Cilji:

Spoznati najnovejše molekularne metode, ki se uporabljajo v klinični medicini.

Objectives:

Introduce modern molecular approaches to clinical medicine.

Predvideni študijski rezultati:

Znanje in razumevanje:
Genomike, proteomike in genske regulacije.

Intended learning outcomes:

Knowledge and Understanding:
Genomics, proteomics and gene regulation.

Prenesljive/ključne spretnosti in drugi atributi:
Uporabnost molekularnih metod v raziskavah
bolezenskih stanj.

Transferable/Key Skills and other attributes:
Practical skills in molecular investigations of disease
states.

Metode poučevanja in učenja:

Predavanja, problemsko usmerjeno poučevanje i
laboratorijske vaje

Learning and teaching methods:

Lectures, problem-based learning, seminars and
laboratory exercises

Načini ocenjevanja:

Način (pisni izpit, ustno izpraševanje,
naloge, projekt)
Pisno

Delež (v %) /
Weight (in %)

Assessment:

Type (examination, oral, coursework, project):
Written exam

Materialni pogoji za izvedbo predmeta :

Predavalnica, računalnik

Material conditions for subject realization

Lecture Hall, computer

Obveznosti študentov:

(pisni, ustni izpit, naloge, projekti)

Pisni izpit, projekt

Students' commitments:

(written, oral examination, coursework, projects):

Written exam, projects