



OPIS PREDMETA / SUBJECT SPECIFICATION

Predmet:	Biokemija proteinov in encimov
Subject Title:	Biochemistry of Proteins and Enzymes

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Biologija in ekologija z naravovarstvom /Biology and ecology with nature conservation	Biologija / Biology	1	1

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
45	15		15		135	7

Nosilec predmeta / Lecturer:

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

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

Vsebina:
Contents (Syllabus outline):

Temeljni študijski viri / Textbooks:

- Bollag, D. M., M. D. Rozycki, S. J. Edelstein, 1996: Protein methods. Wiley-Liss, New York.
- Cutler, P., 2003: Protein purification protocols. Humana Press, New York.
- Eienthal, R., M. Danson, 2002: Enzyme assays: A practical approach, 2nd ed. Oxford Univ. Press, Oxford.

Cilji:

- Teoretična in praktična predstavitev metod za čiščenje proteinov
- Predstavitev kvalitativne in kvantitativne analize proteinov

Objectives:

- Theoretical and practical presentation of methods of protein purification
- Presentation of qualitative and quantitative analysis of proteins

Predvideni študijski rezultati:**Znanje in razumevanje:**

- Poznavanje bistvenih lastnosti proteinov
- Poznavanje možnosti in omejitev čiščenja in analize proteinov

Prenesljive/ključne spretnosti in drugi atributi:

- Priprava pufrov in ostalega potrebnega za izolacijo proteinov
- Obvladovanje homogenizacije, frakcioniranega obarjanja, kromatografskih in elektroforetskih metod
- Obvladovanje koncentriranja raztopin proteinov in določanja njihove koncentracije

Intended learning outcomes:**Knowledge and Understanding:**

- Knowledge on fundamental properties of proteins
- Knowledge of possibilities and limits of protein purification and analysis

Transferable/Key Skills and other attributes:

- Preparation of buffers and other requirements for protein isolation
- Skill on homogenization, fractionary precipitation, chromatographic and electrophoretic methods
- Skill on concentrating solutions of proteins and determining their concentration

Metode poučevanja in učenja:

- Predavanja
- Laboratorijske vaje

Learning and teaching methods:

- Lectures
- Laboratory excersises

Načini ocenjevanja:

- Pisni izpit
- Ustni izpit

Delež (v %) /
Weight (in %)50
50**Assessment:**

- Written exam
- Oral exam

Materialni pogoji za izvedbo predmeta :

- Multimedijaska predavalnica
- Laboratorij za biokemijo

Material conditions for subject realization

- Lecture hall for multimedia presentations
- Laboratory for biochemistry

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

- Pisni in ustni izpit

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

- Written and oral exam