

## UČNI NAČRT PREDMETA / COURSE SYLLABUS

<b>Predmet:</b>	MAGISTRSKO DELO
<b>Course Title:</b>	MASTER'S THESIS

Študijski program in stopnja Study Programme and Level	Študijska smer Study Field	Letnik Academic Year	Semester Semester
MAG Biokemija, 2. stopnja	/	2.	3. in 4.
USP Biochemistry, 2 <sup>nd</sup> Cycle	/	2 <sup>nd</sup>	3 <sup>rd</sup> and 4 <sup>th</sup>

**Vrsta predmeta / Course Type:**

obvezni / Mandatory

**Univerzitetna koda predmeta / University Course Code:**

BI223

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Work	Druge oblike študija	Samost. delo Individual Work	ECTS
/	/	/	/	750	750	50

**Nosilec predmeta / Lecturer:**

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**Jeziki / Languages:**

**Predavanja / Lectures:** /

**Vaje / Tutorial:** /

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

Študent oz. kandidat mora imeti predmet opredeljen kot študijsko obveznost.

**Prerequisites:**

The course has to be assigned to the student.

**Vsebina:**

Magistrsko delo mora biti s področja biokemije. Vsebino in naslov soglasno določita študent in izbrani mentor. Študent bo opravil raziskovalno nalogo pod vodstvom mentorja in se usposobil za samostojno poglobljanja znanja, iskanje informacij, načrtovanje in izvajanje raziskovalnega dela, predstavljanje dela v pisni in ustni obliki in zagovarjanje dela pred strokovno komisijo. Študent bo v času opravljanja magistrskega dela delovni mentor najmanj enemu študentu, ki bo opravljal diplomsko delo na univerzitetnem programu 1. stopnje Biokemija, in tako dobil izkušnje pri uvajanju sodelavcev v laboratorijsko delo in pri delu v skupini.

**Content (Syllabus outline):**

The research work for Master thesis is carried out in the field of biochemistry; the contents and the title are determined in agreement with the mentor. Mentors lead the students through the process of research to become autonomous in learning, searching information, planning and executing research as well as presenting the work in written and oral form, including defences in front of a commission. During the course students also act as working mentors to at least one undergraduate (1st cycle) Biochemistry student. In this way students acquire skills for leadership and team work and introduce other people to laboratory practice.

### Temeljna literatura in viri / Readings:

- Knjige in članki, ki so povezani z vsebino magistrskega dela. /
- Books and journal articles relevant to the topic of research.

### Cilji in kompetence:

- Sposobnost samostojnega spremljanja strokovne literature, sposobnost povezovanja svojega znanja in soočanja s kompleksnostjo, oblikovanja ocene na podlagi nepopolnih ali omejenih informacij, ki zajema tudi razmislek o etični odgovornosti.
- Sposobnost uporabe razumevanj meja zanesljivosti eksperimentalnih podatkov pri načrtovanju nadaljnega dela.
- Sposobnost izvedbe raziskovalnega projekta, katerega rezultat je potencialno primeren za objavo ter objektivne uporabe, ocene in predstavitve rezultatov raziskav.
- Sposobnost jasnega in nedvoumnega posredovanja sklepov, znanja in argumentov strokovni in laični publiki.
- Sposobnost prilagajanja novim situacijam in sprejemanja odločitev.
- Sposobnost uvajanja sodelavcev v laboratorijsko delo ter sposobnost vodenja laboratorijskega dela.

Sposobnost neodvisnega in samostojnega nadaljnega izobraževanja.

### Objectives and Competences:

- Ability for independent following current professional literature, for using previous knowledge and cope with the complexity of problems, and assess the situation based on incomplete or limited information, including ethical responsibility.
- Ability to understand the limits of reliability of experimental data in planning further work.
- Ability to carry out a research project and present the results in scientific report format and to objectively assess the results of research projects and present the results.
- Ability to communicate scientific arguments clearly to professional and a lay audience.
- Ability to adapt to new situations and change decisions.
- Ability to introduce others to laboratory work as well as to guide laboratory work (of junior students).

Ability to carry on with independent and autonomous education.

### Predvideni študijski rezultati:

#### Znanje in razumevanje

Študent bo poglobil znanje na področju teme magistrskega dela.

#### Uporaba

Znanje in pridobljene veščine bo študent lahko uporabil pri opravljanju poklica.

#### Refleksija

Povezovanje vseh pridobljenih teoretičnih znanj z reševanjem problemov na področju biokemije ter kritični pogled na uporabnost teh znanj.

### Intended Learning Outcomes:

#### Knowledge and Comprehension

Students will deepen their knowledge in the field of the chosen master thesis.

#### Application

Knowledge and skills will be useful for student's professional career.

#### Analysis

Interconnection of all the previous theoretical knowledge with problem solving in the field of biochemistry, as well as a critical view of the applications.

**Prenosljive spretnosti**

Pri delu bo študent pridobil znanja o metodah reševanja kompleksnih problemov, o načinu prezentacije teh znanj v pisani in govorni obliki povezani z ostalimi metodami posredovanja raziskav, ugotovitev itd.

**Skill-transference Ability**

In the course of the work students will gain methodological knowledge of solving complex problems, presenting knowledge in both written and oral form, linking to other methods of communicating research, findings etc.

**Metode poučevanja in učenja:**

Individualno delo mentorja in samostojno študijsko in raziskovalno delo.

**Learning and Teaching Methods:**

Mentor's individual work and (student's) independent study and research.

**Načini ocenjevanja:**

Ocenjuje se magistrsko delo (50 %) in zagovor magistrskega dela (50 %) Komisijo sestavljajo predsednik, mentor in član. Lestvica ocen vsakega dela je od 5 do 10. Ocena 5 je negativna, ocene 6 do 10 pa pozitivne in sicer: 6--zadostno, 7--dobro, 8 in 9--prav dobro, 10--odlično

Delež (v %) /

Weight (in %) **Assessment:**

Master's thesis and its presentation are graded by a three-member commission (chairman, mentor, additional member) against the grading scale from 5- 10 (grades from 6 to 10 are positive and 5 negative (6 - pass, 7 - fair, 8 and 9 - very good, 10 - excellent).

**Reference nosilca / Lecturer's references:**

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