


**UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION**

<b>Predmet:</b>	Izbrane vsebine in novosti v mikrobiologiji in imunologiji
<b>Subject Title:</b>	Selected Topics and Novelties in Microbiology and Immunology

Študijski program in stopnja Study programme and cycle	Študijska smer Study option	Letnik Year of study	Semester Semester
Dentalna medicina /Dental Medicine 2. stopnja/2nd cycle		2	4.

**Vrsta predmeta / Course type**

Izbirni/Elective

**Univerzitetna koda predmeta / University subject code:**

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
5	20	20			45	3

**Nosilec predmeta / Lecturer:**

Red. prof. dr. Maja Rupnik

**Jeziki /**
**Predavanja / Lecture:** slovenščina/slovene

**Languages:**
**Vaje / Tutorial:** slovenščina/slovene

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

Predmet je namenjen študentom, ki jih zanima raziskovalno delo, saj se bodo na praktičnem primeru manjše projektne naloge spoznali z načinom zasnove projekta, različnimi metodami v mikrobioloških raziskavah, analizo rezultatov ter načini za predstavitev rezultatov.

Teme projektov vključujejo npr. izolacijo in molekularno karakterizacijo različnih pomembnih mikroorganizmov v dentalni mikrobiologiji, raziskave oralne in drugih naravnih mikrobiot, karakterizacijo interakcij mikroorganizmov z dentalnimi materiali.

**Content (Syllabus outline):**

This course is designed for students interested in the research work and give the opportunity to perform a smaller practical research project within diverse microbiological topics (such as isolation and characterization of pathogens from different environments or patient populations; different approaches to study microbiota of oral cavity and other anatomical sites; characterization of interactions with dental materials)

**Temeljni literatura in viri / Textbooks:**

1. Samaranyake L., Essential Microbiology for Dentistry, 4th Edition, Churchill Livingstone, 2011
2. Miller C., Infection Control and Management of Hazardous Materials for the Dental Team , 6th Edition, Mosby, 2017
3. Znanstvena in strokovna periodika glede na temo

**Cilji:**

Študent pri izbirnem predmetu razširjeno in poglobljeno obravnava ozko izbrano temo iz celotnega obsega vsebin izbranega predmeta. Obravnava, presega raven obravnave v učbeniku. Pri izbranem predmetu študent utrjuje znanja in veščine, potrebne za samostojno delo in razčlenjevanje posameznih problemov na osnovi podatkov, dobljenih iz sodobne strokovne literature.

**Objectives:**

Chosen subject out of the electives is studied profoundly. Knowledge about the subject extends the matter given in the course book. Thus, student revise obtained knowledge and skills needed for independent work and problem analyse. Student gains experience how to look for newest data on the chosen field and on the basis of acquired

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Hkrati s tem utrjuje znanja in veščine, potrebne za samostojno iskanje sodobnih virov podatkov iz izbranega področja, njihovo razčlenjevanje, analizo in predstavitev. Cilj je priprava študenta na samostojno obravnavo in predstavitev posameznih tem na osnovi tekočih dogajanj v stroki

**Predvideni študijski rezultati:**

Znanje in razumevanje:

- pomembnejših in novejših tem v mikrobiologiji
- sodobnih metod v diagnostiki in raziskavah

Prenesljive/ključne spretnosti in drugi atributi:

- sposobnost samostojnega dela
- sposobnost reševanja problemov
- uporaba primarnih virov literature
- učinkovita prezentacija

modern data from professional literature learns how to classify, analyse and present them.

Goal is to prepare student for competent interpretation and presentation of cutting edge professional themes.

**Intended learning outcomes:**

Knowledge and Understanding:

- of relevant, new and emerging topics in Microbiology
- state of the art in diagnostic methods and in research

Transferable/Key Skills and other attributes:

- capability of independent work
- capability of problem solving
- use of primary sources of scientific literature
- knowledge, how to present

**Metode poučevanja in učenja:**

Predavanja  
Seminar (predstavitev projektne naloge)  
Vaje

**Learning and teaching methods:**

Lectures  
Seminars (presentation of project work)

**Delež (v %) /**

**Weight (in %) /**

**Assessment:**

**Načini ocenjevanja:**

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

ŠTUDIJSKE OBVEZNOSTI ŠTUDENTOV:  
Študent mora izvesti manjši praktični projekt, pripraviti seminarsko nalogo/poročilo projekta in jo ustno zagovarjati.

NAČIN OCENJEVANJA:  
Končna ocena je sestavljena iz :  
ocene praktičnega dela (30%),  
pisnega izdelka (40%) in  
predstavitev (30%).

POGOJI ZA PRISTOP K POSAMEZNEMU  
PREVERJANJU ZNANJA: ni

30  
40  
30

ACADEMIC OBLIGATIONS OF STUDENTS:  
Student has to perform a small practical project, prepare a written report and a short oral presentation.

**Knowledge assessment**

The final mark is composed of :  
mark for practical work (30%),  
for written report (40%) and  
for presentation (30%).

REQUIREMENTS FOR ACCESS TO INDIVIDUAL  
KNOWLEDGE CHECKING: -

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

Rupnik M. Toward a true bacteriotherapy for Clostridium difficile infection. N Engl J Med. 2015, 372(16):1566-8  
Rupnik M, Wilcox MH, Gerding DN. (2009) Clostridium difficile infection: new developments in epidemiology and pathogenesis. Nat Rev Microbiol. 7(7):526-36. Review.  
Janezic S, Potocnik M, Zidaric V, Rupnik M. Highly Divergent Clostridium difficile Strains Isolated from the Environment. PLoS One. 2016 Nov 23;11(11):e0167101  
Janezic S, Rupnik M. Genomic diversity of Clostridium difficile strains. Res Microbiol. 2015 May;166(4):353-60.