



Univerza v Mariboru
University of Maribor

Medicinska fakulteta
Faculty of Medicine



OPIS PREDMETA / SUBJECT SPECIFICATION

Predmet:	ŽILNI VSADKI
Subject Title:	VASCULAR IMPLANTS

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Biomedicinska tehnologija Biomedical technology		2	3 ali 4

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
15	20		10		105	5

Nosilec predmeta / Lecturer:

prof.dr.Kazimir Miksić

Jeziki / Predavanja / Lecture: Slovenščina, angleščina; Slovene / English

Languages: Vaje / Tutorial:

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

Prerequisites:

Kandidat mora doseči 300 ECTS na predhodnem študiju.

Graduate degree 300 ECTS.

Vsebina:

Contents (Syllabus outline):

- Temeljni koncepti
- Metodološki pristopi
- Odgovor gostitelja na vsadke
- Razgradnja vsadkov v biološkem okolju
- Postopki in metode zaviranja trombogenosti
- Razpočitev aterosklerotične lehe
- Novi postopki slikovnega prikaza žilja
- Nove tehnologije umetnih vsadkov
- Nove tehnologije notranjih žilnih opornic
- Tromboliza in mehanska odstranitev aterosklerotične lehe

- Background concepts
- Methodological approach
- Host reaction to biomaterials and their evaluation
- Degradation of materials in the biological environment
- Nonthrombogenic treatments and strategies
- Cardiovascular plaque rupture
- Advances in vascular imaging
- Advances in graft technologies
- Advances in stent technology
- Thrombolysis and mechanical thrombectomy for arterial disease

Temeljni študijski viri / Textbooks:

1. Ratner BD et al. Biomaterials science. An introduction to materials in medicine. Academic Press. London 1996.
2. Park JB, Bronzino JD. Biomaterials. Principles and applications. CRC Press. Boca Raton 2003.
3. Weaver FA, BH Hood ed. Endovascular management of vascular disease: current technology and applications. Surg Clin North Am 2004.

Cilji:

- metodološki in teoretični koncepti na področju žilnih vsadkov
- koncepti odziva kardiovaskularnega sistema na vsadke
- metode, uporabljane v sodobni klinični aplikaciji

Objectives:

- methodological and theoretical concepts in the field of vascular implants
- concepts of cardiovascular response to biomaterials
- methods used in modern clinical practice

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

Razumevanje novih tehnologij umetnih vsadkov, novih tehnologij notranjih žilnih opornic, poznati odgovor gostitelja na vsadke

Prenesljive/ključne spretnosti in drugi atributi:

Študent mora poznati metodološke pristope slikovnega prikaza ožilja in nove tehnologije umetnih vsadkov

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

Understanding of new technologies of **artificial** implants, advances in stent technology, **to know answer host** on implants

Transferable/Key Skills and other attributes:

Student must know methodological **approaches** of image **display** of **veins** and new technologies of **artificial** implants

Metode poučevanja in učenja:**Learning and teaching methods:**

Predavanja, samostojno raziskovalno delo

Lectures and independent research

Načini ocenjevanja:

Delež (v %) /
Weight (in %)

Assessment:

Način (pisni izpit, ustno izpraševanje, naloge, projekt): projektno delo, seminarska naloga

Type (examination, oral, coursework, project): project work, report

Materialni pogoji za izvedbo predmeta :

Predavanja in raziskovalno delo bodo potekala v obstoječih prostorih in na obstoječi opremi

Material conditions for subject realization

The lectures and individual research work will take place in the existing facilities using existing equipment

Obveznosti študentov:

(pisni, ustni izpit, naloge, projekti)

Pisni in ustni izpit, seminarska naloga

Students' commitments:

(written, oral examination, coursework, projects):

Oral and written exam, report