

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Seminar III
Course title:	Seminar III

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Nanoznanosti in nanotehnologije, 3. stopnja	/	3	5
Nanosciences and nanotechnologies, 3 rd cycle	/	3	5

Vrsta predmeta / Course type Obvezni / Mandatory

Univerzitetna koda predmeta / University course code: NANO3-832

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
	30			30	240	10

**Navedena porazdelitev ur velja, če je vpisanih vsaj 15 študentov. Drugače se obseg izvedbe kontaktnih ur sorazmerno zmanjša in prenese v samostojno delo. / This distribution of hours is valid if at least 15 students are enrolled. Otherwise the contact hours are linearly reduced and transferred to individual work.*

Nosilec predmeta / Lecturer: Prof. dr. Zvonko Trontelj
Prof. dr. Boris Žemva
Prof. dr. Veronika Stoka

Jeziki / Languages: Predavanja / Lectures: Slovenski ali angleški / Slovene or English
Vaje / Tutorial:

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

Zaključen študij druge stopnje.

Prerequisites:

Completed second-cycle studies.

Vsebina:

Študenti bodo razvili sposobnosti spremljanja ter prepoznavanja aktualnih znanstveno raziskovalnih problemov, sodobnih metod raziskovanja, najnovejših rezultatov in uporabe najnovejšega znanja na področju nanoznanosti in nanotehnologij. Študenti se bodo soočili tudi z izzivi izdelave pisnega pregleda obravnavanih vsebin v obliki članka ter s posredovanjem ugotovitev v obliki neposrednega ustnega komuniciranja.

Content (Syllabus outline):

Students will develop the ability to follow and identify current scientific research problems, modern methods of research, the latest results and the use of the state-of-the-art knowledge in the field of nanosciences and nanotechnologies. Students will also face with the challenges of writing a written review of the selected topics as a paper and by sharing of their findings with oral seminar presentation.

Temeljni literatura in viri / Readings:

Znanstvena literatura s področja seminarja. / Scientific literature from the field of the seminar.

Cilji in kompetence:

Predmet nadgrajuje pridobljeno znanje pri predmetih Seminar I in Seminar II, cilj predmeta je pripraviti pisno celostno predstavitev svojih bistvenih raziskovalnih rezultatov doktorske disertacije v obliki članka ter posredovanje navedenega v obliki ustne predstavitve.

Objectives and competences:

This course upgrades the knowledge received at Seminar I and Seminar II, its aim is to prepare a written comprehensive presentation of the essential research results of the doctoral dissertation as a scientific paper. An important goal is also the ability to present their findings in the form of oral presentation.

Predvideni študijski rezultati:

Priprava znanstvenega članka za celostno predstavitev svojih bistvenih raziskovalnih rezultatov doktorske disertacije, njegova predstavitev ter suverena ustna komunikacija o obravnavanih vsebinah.

Dokazano celovito znanje z raziskovalnega področja študijskega programa.

Intended learning outcomes:

Preparation of a scientific paper for a comprehensive presentation of the essential research results of the doctoral dissertation and oral presentations based on their own research work.

Demonstration of comprehensive knowledge from the research field of study programme.

Metode poučevanja in učenja:

Seminar, konzultacije, druge metode

Learning and teaching methods:

Seminar, consultations, other methods

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
Seminarska naloga (članek s področja doktorske disertacije)	70 %	Seminar (scientific paper on the topic of the doctoral dissertation)
Ustna predstavitev in zagovor seminarske naloge	30 %	Oral presentation and defense of the seminar work
Seminar III študent opravi tako, da pred komisijo treh profesorjev predstavi svoje raziskovalno delo na doktorskem študiju in dokaže celovito znanje z raziskovalnega področja študijskega programa. Z mentorjem uskladi datum in uro seminarja ter na info@mps.si najmanj en teden pred predstavitvijo sporoči datum, uro, prostor in naslov seminarja. Predsednik komisije je predstojnik študijskega programa ali njegov pooblaščen predstavnik, člana komisije pa sta tudi mentor in praviloma vsaj en član komisije za oceno disertacije. Po opravljenem Seminarju III odda v tajništvo MPŠ izpolnjen in podpisan zapisnik Seminarja III, izpitno prijavnico za Seminar III, seminarsko nalogo (članek s področja doktorske disertacije) ter natisnjene prosojnice seminarja		Seminar III assessment is based on the presentation of the student's doctoral project in front of a committee of three IPS professors, where the student also demonstrates comprehensive knowledge from the research field of the study programme. The student and the supervisor jointly set the date and time of the seminar. At least one week before the presentation, the student shall communicate the date, time, room and title of the seminar to info@mps.si. The Head of the study program or his authorised representative is the president of the commission, supervisor and usually also one of the members of the commission for the evaluation of the dissertation are also members. After presenting Seminar III, the student must submit to the IPS Secretariat the filled out and signed minutes of Seminar III, Seminar

		III exam application, printed seminar work (scientific paper on the topic of the doctoral dissertation), as well as printout of slides presented at the seminar.
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Reference nosilca / Lecturer's references:

BEGUŠ, Samo, PIRNAT, Janez, JAZBINŠEK, Vojko, TRONTELJ, Zvonko. Optical detection of low frequency NQR signals : a step forward from conventional NQR. *Journal of physics. D, Applied physics*, ISSN 0022-3727, 8 Mar. 2017, vol. 50, no. 9, str. 1-10

LAVRIČ, Zoran, PIRNAT, Janez, LUŽNIK, Janko, PUC, Uroš, TRONTELJ, Zvonko, SRČIČ, Stanko. 1414N nuclear quadrupole resonance study of piroxicam: confirmation of new polymorphic form V. *Journal of pharmaceutical sciences*, ISSN 0022-3549, 2015, vol. 104, iss. 6, str. 1909-1918

BEGUŠ, Samo, JAZBINŠEK, Vojko, PIRNAT, Janez, TRONTELJ, Zvonko. A miniaturized NQR spectrometer for a multi-channel NQR-based detection device. *Journal of magnetic resonance*, ISSN 1090-7807, Oct. 2014, vol. 247, str. 22-30

LUŽNIK, Janko, PIRNAT, Janez, JAZBINŠEK, Vojko, LAVRIČ, Zoran, ŽAGAR, Veselko, SRČIČ, Stanko, SELIGER, Janez, TRONTELJ, Zvonko. 14N Nuclear Quadrupole Resonance study of polymorphism in famotidine. *Journal of pharmaceutical sciences*, ISSN 0022-3549, 2014, vol. 103, iss. 9, str. 2704-2709

JOVANOVIĆ, Sonja, SPREITZER, Matjaž, TRAMŠEK, Melita, TRONTELJ, Zvonko, SUVOROV, Danilo. Effect of oleic acid concentration on the physicochemical properties of cobalt ferrite nanoparticles. *The journal of physical chemistry. C, Nanomaterials and interfaces*, ISSN 1932-7447, 2014, vol. 118, issue 25, str. 13844-13856