

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Seminar II
Course title:	Seminar II

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Nanoznanosti in nanotehnologije, 3. stopnja	/	2	4
Nanosciences and Nanotechnologies, 3 rd cycle	/	2	4

Vrsta predmeta / Course type Obvezni / Mandatory

Univerzitetna koda predmeta / University course code: NANO3-831

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
	30			30	840	30

**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. Barbara Malič
Prof. dr. Gojmir Lahajnar
Prof. dr. Veronika Stoka
Prof. dr. Aleksander Zidanšek
Prof. dr. Boris Žemva

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

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti: **Prerequisites:**
Zaključen študij druge stopnje. Completed second-cycle studies.

<p>Vsebina:</p> <p>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 osnutka članka in osnutka teme disertacije ter s posredovanjem ugotovitev v obliki neposrednega ustnega komuniciranja.</p>	<p>Content (Syllabus outline):</p> <p>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 draft paper and a draft topic of the dissertation as well as by sharing of their findings with oral seminar presentation.</p>
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Temeljni literatura in viri / Readings: Znanstvena literatura s področja raziskovalnega dela študenta. / Scientific literature from the field of the student's own research.

Cilji in kompetence:

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

Objectives and competences:

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

Predvideni študijski rezultati:

Priprava osnutka članka in osnutka teme disertacije, ustna predstavitev ter suverena komunikacija o obravnavanih vsebinah.

Intended learning outcomes:

Preparation of a draft paper and a draft topic of doctoral dissertation as well as oral presentation and sovereign communication about the discussed topics.

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 (osnutek članka s področja doktorske disertacije)	70 %	Seminar (draft paper on the topic of the doctoral dissertation)
Ustna predstavitev in zagovor seminarske naloge	30 %	Oral presentation and defense of the seminar work
Seminar II študent opravi tako, da pred komisijo treh profesorjev predstavi svoje raziskovalno delo na doktorskem študiju. Z mentorjem uskladi datum in uro seminarja ter na info@mps.si najmanj en teden pred predstavitvijo sporoči datum, uro, prostor in naslov seminarja. Komisija je praviloma enaka komisiji za oceno teme disertacije. Po opravljenem Seminarju II odda v tajništvo MPŠ izpolnjen in podpisan zapisnik Seminarja II, izpitno prijavnico za Seminar II, seminarsko nalogo (osnutek članka s področja doktorske disertacije) ter natisnjene prosojnice seminarja.		Seminar II assessment is based on the presentation of the student's doctoral project in front of a committee of three IPS professors. 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 commission is usually the same as commission for the evaluation of the topic of the dissertation. After presenting Seminar II, the student must submit to the IPS Secretariat the filled out and signed minutes of Seminar II, Seminar II exam application, printed seminar work (draft paper on the topic of the doctoral dissertation), as well as printout of slides presented at the seminar.

Reference nosilca / Lecturer's references:

ROJAC, Tadej, BENČAN, Andreja, DRAŽIČ, Goran, SAKAMOTO, Naonori, URŠIČ, Hana, JANČAR, Boštjan, TAVČAR, Gašper, MAKAROVIČ, Maja, WALKER, Julian, MALIČ, Barbara, DAMJANOVIČ, Dragan. Domain-wall conduction in ferroelectric BiFeO₃BiFeO₃ controlled by accumulation of charged defects. *Nature materials*, ISSN 1476-1122, 2017, vol. 16, no. 3, str. 322-327, doi: [10.1038/nmat4799](https://doi.org/10.1038/nmat4799). [COBISS.SI-ID [29936679](#)], LOZINŠEK, Matic, MERCIER, H  l  ne P. A., BROCK, David S., ŽEMVA, Boris, SCHROBILGEN, Gary J. Coordination of KrF₂ to a naked metal cation, Mg²⁺. *Angewandte Chemie : International edition*. [Print ed.]. 2017, vol. 56, no. 22, str. 6251-6254. ISSN 1433-7851. DOI: [10.1002/anie.201611534](https://doi.org/10.1002/anie.201611534). [COBISS.SI-ID [30151719](#)], BIDOVEC, Katja, BOŽIČ, Janja, DOLENC, Iztok, TURK, Boris, TURK, Vito, STOKA, Veronika. Tumor necrosis factor-   induced apoptosis in U937 cells promotes cathepsin D-independent stefin B degradation. *Journal of cellular biochemistry*. 2017, vol. 118, no 12, str. 4813-4820. ISSN 0730-2312. DOI: [10.1002/jcb.26152](https://doi.org/10.1002/jcb.26152). [COBISS.SI-ID [30506535](#)], DESANDO, Michael A., LAHAJNAR, Gojmir, PLAVEC, Janez. Molecular interactions and mechanisms in the ¹H NMR relaxation of residual CHCl₃ in deuteriochloroform solution of a two-chain ionic surfactant. *Journal of solution chemistry*. 2018, vol. 47, no. 7, str. 1246-1268. ISSN 0095-9782, doi: [10.1016/j.jallcom.2015.06.192](https://doi.org/10.1016/j.jallcom.2015.06.192). [COBISS.SI-ID [28751655](#)], ABINA, Andreja, PUC, Uroš, JEGLIČ, Anton, ZIDANŠEK, Aleksander. Structural characterization of thermal building insulation materials using terahertz spectroscopy and terahertz pulsed imaging. *NDT & E International*, ISSN 0963-8695. [Print ed.], 2016, vol. 77, str. 11-18, doi: [10.1016/j.ndteint.2015.09.004](https://doi.org/10.1016/j.ndteint.2015.09.004). [COBISS.SI-ID [28983847](#)]