

## UČNI NAČRT PREDMETA / COURSE SYLLABUS

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| <b>Predmet:</b>      | Komuniciranje znanosti:<br>Modul 1: Poljudno komuniciranje znanosti<br>Modul 2: Strokovno poročanje in prijava projekta      |
| <b>Course title:</b> | Science Communication:<br>Module 1: Popular science communication<br>Module 2: Scientific publications and project proposals |

| Študijski program in stopnja<br>Study programme and level  | Letnik<br>Academic year | Semester<br>Semester |
|--|-------------------------|----------------------|
| Nanoznanosti in nanotehnologije,<br>Informacijske in komunikacijske tehnologije,<br>Ekotehnologije, Senzorske tehnologije, 3. stopnja            | 1                       | 1                    |
| Nanosciences and Nanotechnologies,<br>Information and Communication Technologies,<br>Ecotechnologies, Sensor Technologies, 3 <sup>rd</sup> cycle | 1                       | 1                    |

**Vrsta predmeta / Course type** Izbirni / Elective

**Univerzitetna koda predmeta / University course code:** SPL-725

| Predavanja<br>Lectures | Seminar<br>Seminar | Sem. vaje<br>Tutorial | Lab. vaje<br>Laboratory<br>work | Druge oblike<br>Other | Samost. delo<br>Individ. work | ECTS |
|------------------------|--------------------|-----------------------|---------------------------------|-----------------------|-------------------------------|------|
| 15                     | 15                 |                       |                                 | 15                    | 105                           | 5    |

*\*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. Saša Novak Krmpotič

**Jeziki / Languages:** **Predavanja / Lectures:** Slovenski in/ali angleški/Slovenian or English  
**Vaje / Tutorial:** Slovenski in/ali angleški/Slovenian or English

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

Zaključen študij druge stopnje.

**Prerequisites:**

Completed second-cycle studies

**Vsebina:**

Predmetni sklop obravnava dve področji komuniciranja znanosti:

- Poljudno komuniciranje znanosti
- Strokovno poročanje in prijava projekta

**Ad.1:** V prvem modulu (Poljudno komuniciranje znanosti) se slušatelji seznanijo z osnovnimi pristopi k podajanju znanstvenih vsebin na poljuden način. Obravnavani bodo poljudnoznanstveni članki in predavanja, intervjuji

**Content (Syllabus outline):**

The present subject set deals with two areas of science communication:

- Popular science communication
- Professional reporting and project application

**Ad 1:** In the first module (Popular Science Communication), the students become familiar with the basic approaches to delivering scientific content in a simplified (popular) manner. They will address popular science articles and lectures, interviews,

in podajanje izjav v mikrofonski ter nastopi pred kamero.

Delo bo potekalo v obliki delavnic, ki jih bodo vodili na področju znanosti izkušeni novinarji.

Predavatelji bodo predstavili pričakovanja nestrokovne javnosti, načine pristopov k pisanju člankov v dnevnem časopisju in kako se pripraviti na nastop v radijskih in televizijskih prispevkih, intervjujih in oddajah na temo znanosti, kako pripraviti dober pič. Opozorili bodo tudi na pasti in napake v poljudnem poročanju o znanosti.

**Ad.2:** V drugem modulu (Strokovno poročanje in prijava projekta) bodo predavatelji udeležencem predstavili postopke priprave znanstvenega članka ali govornega prispevka na strokovni konferenci in projektne prijave. Pouk bo potekal v obliki delavnic, ki bosta potekali strnjeno v kratkem časovnem obdobju.

V prvi delavnici (pisanje znanstvenega članka, priprava govornega prispevka) bosta predstavljena vidika avtorja in recenzenta oz. urednika revije, nato pa bodo slušatelji v sodelovanju z izvajalcem pripravili osnutek članka in govorne predstavitve.

V drugi delavnici (prijava projektne prijave) slušatelji spoznajo postopke iskanja razpisov, načine vključevanja v konzorcije in pridobijo znanje, kako pripraviti projektno prijavo, nato pa slušatelji v sodelovanju z izvajalcem pripravijo osnutek prijave.

giving interviews for radio or TV.

The work will take place in the form of workshops led by the journalists experienced in popular science. Lecturers will present the expectations of non-professional public, the approaches on how to write an article for daily newspaper and how to report in radio or TV interview or prepare an effective pitch. Typical mistakes in popular communication of science will be also mentioned.

**Ad.2:** In the second module (Professional reporting and project application) the lecturers will present the procedures for the preparation of a scientific article or an oral conference contribution. The second part will be devoted to the preparation of project application. Lessons will be held in the form of workshops, which will take place clustered within a short period of time.

The first workshop (writing scientific articles and preparing oral presentations) will be presented in the perspectives of the author and the reviewer/editor. The students will prepare a draft of a paper and oral presentation.

In the second workshop (project application) students will learn where to find the calls for proposal, ways to get involved in consortia. They will gain knowledge on how to prepare a project application and will prepare a draft with a help of the lecturer.

### Temeljna literatura in viri / Readings:

- Virginia Gewin , How to write a first-class paper, 28 Nature, February 2018 (<https://goo.gl/AFrMUa>)
- Science Research Writing For Non-Native Speakers Of English: A Guide for Non-Native Speakers of English, Glasman-Deal, Hilary
- Scientific Writing: The Reader's and Writer's Guide 2.0: The Expanded Edition with Writing Diagnosis Tool on DVD for Mac and PC, Jean-Luc Lebrun
- R. Wheller, Proposal writing, 2011: <https://goo.gl/mrx712> (March 2018)

### Cilji in kompetence:

Predmetni sklop »Komuniciranje znanosti« je namenjen magistrskim in doktorskim študentom MPŠ, odprt pa je tudi za udeležbo zunanjih slušateljev.

V modulu »**Poljudno komuniciranje znanosti**« se bodo udeleženci spoznali s pomenom definiranja ciljne publike, cilji komuniciranja, z načini, kako poljudno, torej zanimivo in razumljivo, predstaviti

### Objectives and competences:

The subject set "Science Communication" is aimed at masters and doctoral students IPS and is open also to the participation of other students.

In the module, "Popular Science Communication" they will learn about the importance of defining the target audience, communication objectives, the ways to present their scientific work in popular, so interesting and understandable way. They will

svoje znanstveno delo. Pridobili bodo tudi večino, kako poljudnost uravnotežiti s strokovnostjo. Na delavnicah se bodo spoznali tudi z osnovami javnega nastopanja, lahko pa se bodo preizkusili tudi v veščinah poljudnega poročanja v različnih vrstah medijev.

V modulu »**Znanstveno poročanje in prijava projekta**« se slušatelji spoznajo s postopki priprave znanstvenega članka ali govornega prispevka in s pripravo projektne prijave.

acquire the skill of how to balance popular and professional stiles. The workshops will also be acquainted with the basics of public speaking and reporting.

In the module, "Scientific Reporting and Project Proposal" the students will get familiar with the steps of preparing a scientific paper or oral presentation as well as the preparation of project applications.

**Predvideni študijski rezultati:**

- Sposobnost pisnega poljudnega poročanja o znanosti
- Sposobnost ustnega poljudnega poročanja o znanosti (npr. intervju)
- Sposobnost poljudnega poročanja o znanosti pred kamero
- Sposobnost priprave osnutka znanstvenega članka
- Sposobnost priprave govornega prispevka
- Poznavanje postopka in priprave projektne prijave

**Intended learning outcomes:**

- Ability to written popular reporting of science
- Ability to oral popular reporting of science (e.g. interview)
- Ability to popular reporting of science in front of a camera
- Ability to prepare a draft of a scientific article
- Ability to prepare oral presentations
- Knowledge of the process and the preparation of project applications

**Metode poučevanja in učenja:**

Uvodna predavanja

Modul 1 (znanost poljudno): Delavnice bodo potekale strnjeno v kratkem časovnem obdobju. Posamezna delavnica (članek, radio, TV) bo predvidoma vsebovala 4 ure v dveh terminih (2 + 2 uri), skupaj 12 ur, od tega polovica predavanj in polovica delavnica. V primeru velikega števila slušateljev se bo delavnica izvajala v dveh terminih.

Modul 2 (članek, projekt): Delavnice bodo potekale strnjeno v kratkem časovnem obdobju. Posamezna delavnica bo vsebovala 4 ure v dveh terminih (2+2 uri), skupaj 8, od tega polovica predavanj in polovica delavnica. V primeru velikega števila slušateljev se bo delavnica izvajala v dveh terminih.

Konzultacije, individualno delo, predstavitev izdelkov študentov, kot so povzetek, osnutek članka, osnutek projekta, posnetek predavitve.

**Learning and teaching methods:**

Introductory lectures

Module 1 (popular science): Workshops will be held clustered within a short period of time. Individual workshop (paper, radio, TV) is expected to include 4 hours in two periods (2 + 2 hours), a total of 12 hours. In the case of a large number of participants, the workshop will be conducted in two periods.

Module 2 (article project): Workshops will be held clustered within a short period of time. Each workshop will include 4 hours in two periods (2 + 2 hours), a total of 8 hours. In the case of a large number of participants, the workshop will be conducted in two periods.

Consultations, individual work, presentation of student works, e.g. abstracts, draft manuscripts, draft projects, recording of a presentation.

| <b>Načini ocenjevanja:</b>                | Delež (v %) /<br>Weight (in %) | <b>Assessment:</b>                            |
|---|--------------------------------|---|
| Študenti MPS, ki bodo vpisali ta predmet, | 40 %                           | IPS students who will enroll this course must |

|   |      |   |
|---|------|---|
| morajo imeti potrjeno aktivno udeležbo pri vseh petih predmetnih sklopih. Aktivno udeležbo potrdijo predavatelji ali koordinator. |      | have evidence of active participation in all five parts of the subjects. Active participation is certified by the lecturers or by the coordinator of the subject. |
| Izdelek študenta, kot je povzetek, osnutek članka, osnutek projekta, posnetek predstavitve.                                       | 30 % | Student work, e.g. abstracts, draft manuscripts, draft projects, recording of a presentation.   |
| Ustni zagovor izdelka.  | 30 % | Oral defence of student work  |

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

- GANTAR, Ana, SILVA, Lucilia P. da, OLIVEIRA, Joaquim M., MARQUES, Alexandra P., CORRELO, Vitor M., NOVAK, Saša, REIS, Rui L. Nanoparticulate bioactive-glass-reinforced gellan-gum hydrogels for bone-tissue engineering. *Materials science & engineering. C, Materials for biological applications*, ISSN 0928-4931. [Print ed.], 2014, vol. 43, str. 27-36, doi: [10.1016/j.msec.2014.06.045](https://doi.org/10.1016/j.msec.2014.06.045).
- ČERČEK, Milan (intervjuvanec), NOVAK, Saša (intervjuvanec), SNOJ, Luka (intervjuvanec). *Fuzija : TV Pika, Oddaja Sadovi znanja*. 26. mar. 2009.
- ČERČEK, Milan (intervjuvanec), MARKELJ, Sabina (intervjuvanec), NOVAK, Saša (intervjuvanec). *Iter fuzijska energija : SLO 1, oddaja Alpe-Donava-Jadran : intervju*. 24.11.2008.
- NOVAK, Saša. I am a scientist - and I talk about it!. *Fusion in Europe*, 2017, no. 2, str. 10-113.
- NOVAK, Saša. Kaj pa znanstveniki sploh počnete? : znanstveni blog. *Delo*, ISSN 0350-7521, 16. mar. 2017, letn. 59, št. 62, str. 17.