

## UČNI NAČRT PREDMETA / COURSE SYLLABUS

**Predmet:** OKOLJSKI PROJEKTNI PRAKTIKUM  
**COURSE TITLE:** ENVIRONMENTAL PROJECT PRACTICUM

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Varstvo okolja in ekotehnologije, 1. stopnja		3.	
Environmental Protection and Eco-technologies, 1st level		3rd	

**Vrsta predmeta / Course type**

Izbirni predmet / Optional subject

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

OPP

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
15	0	25	0	0	100	5

**Nosilec predmeta / Lecturer:**

doc. dr. Samar Al Sayegh Petkovšek

**Jeziki /**

**Predavanja / Lectures:** Slovenski / Slovenian

**Languages:**

**Vaje / Tutorial:** Slovenski / Slovenian

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

Pogojev ni.

**Prerequisites:**

No formal prerequisites.

**Vsebina:**

Predmet bo osredotočen na pridobitev praktičnih znanj s področja priprave, izvajanja in vodenja okoljskih projektov.

**Poglavitne teme:**

**Seznanitev z osnovami projektne dela (s poudarkom na okoljskih projektih):**

- definicija projekta;
- vrste projektov;
- načini pridobivanja projektov (npr. javni razpisi, povpraševanja);
- načrtovanje okoljskih projektov in osnove upravljanja projekta (opredelitev namena, vsebine, ciljev in pričakovanih rezultatov, sestava projektne skupine, terminski plan, nadzor nad projektom, razširjanje in implementacija rezultatov).

**Predstavitev okoljskih projektov**, upošteva različne skupine naročnikov, raziskovalne metode in delovne sklope.

**Priprava projektnih nalog/idej** študentov, njihova predstavitev ter razprava.

**Content (Syllabus outline):**

The course will be focused on acquiring practical knowledge on the field of preparation, implementation and management of environmental project.

Main topics:

**Aquaintance with fundamentals of project work with emphasis on environmental projects:**

- definition of projects;
- types of projects;
- methods of obtaining projects (eg public tenders, inquiries);
- project planning and the basics of the project management of environmental projects (definition of the aims, content, objectives and expected results, the composition of the project team, schedule, control of the project, dissemination and implementation of results).

**Presentation of environmental projects**, regarding different groups of project clients, different research methods and work packages.

**Preparation of project tasks/ideas by individual students** or groups of students, presentation and discussion.

## Temeljni literatura in viri / Textbooks:

- Gornik J., Jelen V., 2018. Projektno delo. Zavod NEFIKS Inštitut za promocijo in beleženje neformalno pridobljenega znanja.
- Hyttinen, K., 2017. Project Management Handbook. IECEU project. University of Applied Science.
- Mumel D., 2015. Komuniciranje v poslovnem okolju. Gradivo za študente. Univerza v Mariboru. Poslovno-ekonomska fakulteta.
- Stare A., 2011. Projektni management, Teorija in praksa. Agencija Poti, d.o.o.
- Mihelak Zupančič, 2010. Projektno vodenje. Usposabljanje strokovnega kadra. Ministrstvo za šolstvo in šport.
- Zakonodaja na spletnih straneh Javne agencije za raziskovalno dejavnost RS.

## Cilji in kompetence:

### Predmetno specifični cilji in kompetence:

- seznanitev s pridobivanjem projektov in oblikovanjem projektne ideje;
- poznavanje različnih tipov/vrst okoljskih projektov;
- poznavanje osnov načrtovanja in upravljanja z okoljskimi projekti;
- seznanitev s timskim delov v projektni skupini;
- prenos teoretičnega znanja v prakso.

### Splošne kompetence:

- sposobnost oblikovanja/izdelave projektne ideje na osnovi konkretne okoljske problematike.

## Objectives and competences:

### Specific competences:

- to acquaint students with obtaining project and planning of project proposal;
- to acquire the knowledge of different types of environmental project;
- to acquire with basic of preparation, implementation and management of environmental project.
- to acquaint students with teamwork within the project team;
- to transfer theoretical knowledge into the practise.

### General competences:

- ability to create a project idea based on specific environmental issues.

## Predvideni študijski rezultati:

### Znanje in razumevanje:

- poznavanje projektne dela na področju okolja;
- poznavanje osnovne strukture okoljskih projektov.

### Prenesljive/ključne spretnosti in drugi atributi:

- sposobnost priprave projektne naloge;
- sposobnost upravljanja s projektom.

## Intended learning outcomes:

### Knowledge and Understanding:

- knowledge of project work in the field of environment;
- knowledge of the basic structure of the environmental project.

### Transferable / Key Skills and other attributes:

- ability to develop project proposal;
- ability to manage the project.

## Metode poučevanja in učenja:

### Oblike dela:

- predavanja,
- samostojno delo študentov,
- seminarske vaje (izdelava lastnega projektne predloga).

### Metode dela:

- razlaga,
- dialog, diskusija,
- preučevanje praktičnih primerov.

## Learning and teaching methods:

### Forms of teaching:

- in-class lectures,
- individual work of students,
- tutorial (preparation of own project proposal).

### Teaching methods:

- explanation,
- discussion, debate,
- presentation and discussion on case studies.

**Načini ocenjevanja:**Delež (v %) /  
Weight (in %)**Assessment:**

<p>Način ocenjevanja:</p> <ul style="list-style-type: none"> <li>pisni izpit,</li> <li>seminar (projektna naloga).</li> </ul> <p>Vprašanja pri pisnem izpitu se nanašajo na snov, podano na predavanjih.</p> <p>Ocenjevalna lestvica:</p> <ul style="list-style-type: none"> <li>zadostno 6 (60-67 %),</li> <li>dobro 7 (68-75 %),</li> <li>prav dobro 8 (76-83 %),</li> <li>prav dobro 9 (84-90 %),</li> <li>odlično 10 (91-100 %).</li> </ul>	<p><b>50</b></p> <p><b>50</b></p>	<p>Assessment:</p> <ul style="list-style-type: none"> <li>written examination,</li> <li>seminar paper.</li> </ul> <p>Questions for written examination are in relation to material delivered in lectures.</p> <p>Grading scale:</p> <ul style="list-style-type: none"> <li>sufficient 6 (60-67%),</li> <li>good 7 (68-75%),</li> <li>very good 8 (76-83%),</li> <li>very good 9 (84-90%),</li> <li>excellent 10 (91-100%).</li> </ul>
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**Materialni pogoji za izvedbo predmeta :**

Predavalnica z multimedijско opremo.

**Material conditions for subject realization:**

Classroom with the multimedia equipment.

**Obveznosti študentov:**

Obvezna udeležba na seminarskih vajah.  
 Pozitivno ocenjena seminarska (projektna) naloga.

**Student's commitments:**

Mandatory participation at seminar.  
 Positively rated seminar paper.

**Reference nosilca predmeta:****Pedagoško delo:**

- nosilka predmetov »Bioindikacija in biomonitoring« in »Projektno delo v biologiji in ekologiji« magistrskega študija na Naravoslovno matematični fakulteti, Univerza v Mariboru;
- soizvajalka predmeta »Okoljski monitoring« in na Univerzi na Primorskem (FAMNIT);
- nosilka predmeta: »Okoljsko tveganje in varstvo pri delu« ter soizvajalka predmetov »Okoljski monitoring« in »Človek in okolje« na Visoki šoli za varstvo okolja v Velenju (VŠVO).

**Vodenje oziroma koordiniranje projektov:**

A. Projekti, financirani neposredno iz proračuna oz. iz EU sredstev:

- Obratovalni monitoring na Osrednjem vadišču Slovenske vojske (OSVAD), Postojna (2016-2018).* Financiranje: Ministrstvo za obrambo RS (MORS).
- L-4320: Ocena tveganja za receptorske organizme iz antropološko spremenjenih gozdnih in travniških habitatov (2011-2014).* Financiranje: Javna agencija za raziskovalno RS (ARRS).
- 3CE356P3: Take a Breath (TAB)!- Adaption Actions to reduce adverse health impact of air pollution (2011-2014).* Financiranje: Evropski sklad za regionalni razvoj (ERDF); odgovorna oseba za partnersko organizacijo.
- M3-0213: Pehotna strelišča kot dejavnik tveganja za okolje s poudarkom na ekološki sanaciji pehotnega strelišča (2007-2009).* Financiranje:

**Lecturer's references:****Pedagogic activities:**

- Holder of courses: "Bioindication and biomonitoring" and "Project work in biology and ecology" at the University of Maribor (*The Faculty of Natural sciences and Mathematics*);
- Co-holder of s course: "Environmental monitoring" at the University of Primorska (FAMNIT);
- Holder of the course: "Ecological risks and work safety" and co-holder of courses: "Environmental monitoring" and "Man and environment" at EPC (Environmental Protection Collegue, Velenje).

**Project leading or coordination:**

A. Project, which are funded directly from the state budget and from EU budget:

- Monitoring of the Central Military Training Ground for the Slovene army in Postojna (2016-2018).* Funding: Ministry of Defence of Republic Slovenia (MORS).
- L-4320: Ecological risk assessment of receptor organisms inhabiting anthropogenical influenced grasslands and forest habitats (2011-2014).* Funding: Slovenian Research Agency (ARRS).
- 3CE356P3: Take a Breath (TAB)!- Adaption Actions to reduce adverse health impact of air pollution (CENTRAL EUROPE) (2011-2014).* Funding: ERDF; partner coordinator;
- M3-0213: Ecological risk assessment of military shooting ranges with emphasis on ecological remediation of shooting range at training ground Poček (2007-2009).* Funding: ARRS.
- M1-0157: Assessment of the environmental impact of*

<p>ARRS.</p> <ul style="list-style-type: none"> <li>• M1-0157: Določitev vpliva vojaškega poligona Krivolak na okolje z namenom njegove ekološke sanacije (1.6.2006-30.11.2007). Financiranje: ARRS.</li> <li>• L1-6404-1007-05: Glive kot odzivni in akumulacijski bioindikatorji onesnaženosti gozdnih rastišč (2004-2007). Financiranje: ARRS.</li> <li>• 808-00-1/2004-320: Določitev vpliva vojaškega poligona na okolje kot modelna študija za varovanje in sanacijo okolja na območjih delovanja Slovenske vojske (2004-2006). Financiranje: MORS in ARRS.</li> </ul> <p>B. Projekti, financirani s finančno pomočjo Evropskega kmetijskega sklada za razvoj podeželja: Evropa investira v podeželje (pristop Leader) (2011-2013).</p> <ul style="list-style-type: none"> <li>• Drevesne zgodbe podeželja Šaleške doline (2013). Soavtor strokovne monografije.</li> <li>• Tematska pot v okolici Kavčnikove domačije (2011).</li> <li>• Tematska pot v okolici Šaleških jezer (2010).</li> </ul> <p>C. Več deset projektov za končne uporabnike (Družba za avtoceste RS, Direkcija RS za infrastrukturo, lokalne skupnosti, projektantska podjetja in ostala podjetja).</p>	<p><i>the military training ground Krivolak with the aim of its ecological remediation (2006-2007). Funding: ARRS.</i></p> <ul style="list-style-type: none"> <li>• L1-6404-1007-05: <i>Fungi as sensitive and accumulative bioindicators of forest site pollution in the Šalek Valley (2004-2007). Funding: ARRS.</i></li> <li>• 808-00-1/2004-320: <i>Assessment of environmental impact of military training activities as a model study for environmental protection and remediation of military training areas of the Slovenian Army (2004-2006). Funding: MORS and ARRS.</i></li> </ul> <p>B. Projects, which are co-financed from the budget from European Agricultural Fund for Rural Development (EARFD).</p> <ul style="list-style-type: none"> <li>• <i>Tree stories of the rural area of the Šalek Valley (2013), Co-author of the professional monograph.</i></li> <li>• <i>Thematic route near Kavčnik homestead (2011),</i></li> <li>• <i>Thematic route along the Šalek lakes (2010).</i></li> </ul> <p>C. Several projects for end users (Motorway Company of the Republic of Slovenia, Directorate of the Republic of Slovenia for Infrastructure, local communities and other companys).</p>
<p><b>Izbrani znanstveni članki / selected scientific papers:</b></p> <p>Al Sayegh Petkovšek, S., 2019. Analiza uspešnosti vzpostavitve nadomestnega habitata Črni log - Hotiška gmajna s poudarkom na rastni uspešnosti sadik = Analysis of the success of introduction of replacement habitat Črni log % Hotiška gmajna with emphasis on growth efficiency of planted seedlings. <i>Gozdarski vestnik</i>, letn. 77, št. 5/6, str. 211-231.</p> <p>Al Sayegh Petkovšek, S., Kopušar, N., Pokorny, B., Tome, D., Kryštufek, B., 2017. Prehod kovin iz tal v tkiva izbranih vrst prostoživečih živali: primer Velikega Vrha = Transfer of metals from soil to tissues of selected free-living animals: a case study for Veliki Vrh. <i>Acta silvae et ligni</i>, št. 144, str. 1-20.</p> <p>Pokorny, B., Flajšman, K., Al Sayegh Petkovšek, S., 2017. Ekosistemska vloga, pomen in vplivi prostoživečih prežvekovalcev = Ecological value, importance and impacts of wild ruminants. <i>Gozdarski vestnik</i>, letn. 75, št. 9, str. 360-372.</p> <p>Al Sayegh Petkovšek S., Kopušar N., Kryštufek B., 2015. Small mammals as biomonitors of metal pollution: a case study in Slovenia. <i>Environmental monitoring and assessment</i>, 186:4261-4274.</p> <p>Al Sayegh Petkovšek S., Kopušar N., Tome D., Kryštufek B., 2015. Risk assessment of metals and PAHs for receptor organisms in differently polluted areas in Slovenia. <i>Science of the total environment</i>, 532:404-414.</p> <p>Al Sayegh Petkovšek, S., Mazej Grudnik Z., Pandics T., Paldy, A., 2014. Assessment of health effects of ozone, PM2.5 and PM10 in the Šalek Valley (Slovenia) in comparison with selected Central European areas. <i>Central European Journal of Occupational and Environmental Medicine</i>, vol. 20 (1-2): 103-118.</p> <p>Al Sayegh Petkovšek S., 2013. Forest biomonitoring of the largest Slovene thermal power plant with respect to reduction of air pollution. <i>Environmental monitoring and assessment</i>, 185:1809-1823.</p> <p>Al Sayegh Petkovšek S., Pokorny B., 2013. Lead and cadmium in mushrooms from the vicinity of two large emission sources in Slovenia. <i>Science of the total environment</i>, 443:944-954.</p> <p>Al Sayegh Petkovšek S., Mazej Z., Pokorny B., 2012. Heavy metals and arsenic concentrations in ten fish species from the Šalek lakes (Slovenia): assessment of potential human health risk due to fish consumption. <i>Environmental monitoring and assessment</i>, 184:2647-2662.</p> <p>Al Sayegh Petkovšek S., Poličnik H., Ramšak R., Mavec M., Pokorny B., 2010. Ecological remediation of the Šoštanj thermal power plant with respect to sustainable development of the Šalek Valley, Slovenia. <i>Thermal science</i>, 14:773-782.</p> <p>Mazej Z., Al Sayegh Petkovšek S., Pokorny B., 2010. Heavy metal concentrations in food chain of lake Velenjsko jezero, Slovenia: an artificial lake from mining. <i>Archives of environmental contamination and toxicology</i>, 58:998-1007.</p>	