



Univerza v Mariboru

Fakulteta za naravoslovje
in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Praktično usposabljanje za poučevanje biologije 1
Course title:	Pedagogical practice for biology teaching 1

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Izobraževalna biologija, dvopredmetni študij 2. stopnje		1	poletni
Educational Biology, two stream study, 2 nd. degree		1	summer

Vrsta predmeta / Course type

Obvezni/obligatory

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Seminarske vaje Tutorial	Lab. Vaje Lab. Work	Druge oblike študija	Samost. delo Individ. work	ECTS
15	3		5		97	4

Nosilec predmeta / Lecturer:

Andreja Špernjak

Jeziki /

Languages:

Predavanja /

Lectures:

slovenski / Slovenian

Vaje / Tutorial:

slovenski / Slovenian

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

Osnovna znanja iz pedagogike in psihologije;
prisotnost na predavanjih, seminarjih in vajah iz predmeta Didaktika biologije

Prerequisites:

Basic skills in pedagogy and psychology;
attendance at lectures, seminars and laboratory work for subject Didactics of Biology

Vsebina:

Predavanja:

- organizacija vzgojno – izobraževalnega dela v osnovni šoli;
- šolska dokumentacija, predmetnik in učni načrti za biologijo v OŠ in naravoslovje 6 in 7;
- organizacija strnjene pedagoške prakse;
- spoznavanje dokumentacije o opazovanju, spremljanju, izvajanju in ocenjevanju izvedenih dejavnosti na dvotedenski strnjeni pedagoški praksi v osnovni šoli.
- načrtovanje in izvedba pisne priprave za pouk;
- pripravljanje na izvedbo nastopa;

Contents (Syllabus outline):

Lectures:

- organization of the education in primary school;
- school documentation and subject curricula for technology education;
- organization of pedagogical practice;
- the documentation of the observation, monitoring, implementation and evaluation of the activities in the continuous two-week teaching practice in primary school.
- planing of educational process – preparing for class appearances;
- diary of pedagogical practice;

<ul style="list-style-type: none"> • dnevnik pedagoške prakse; • vrednotenje in refleksija pedagoške prakse. <p><u>Laboratorijske vaje:</u></p> <ul style="list-style-type: none"> • izvedba 2 nastopov v OŠ; • 3 hospitacije učiteljev (vzorčni nastopi), • najmanj 6 hospitacij kolegov študentov med letom. • izvedba pedagoške prakse. <p><u>Samostojno delo:</u></p> <ul style="list-style-type: none"> • pisne priprave za izvedbo pouka; • spoznavanje pedagoške dokumentacije (letna in dnevna priprava, dnevnik, redovalnica); • delo in organiziranost oddelčne in šolske skupnosti; • organiziranost interesnih dejavnosti, šolskih projektov, društev in aktivov učiteljev; • izvedba učnih ur (nastopov) in hospitacij na strnjeni pedagoški praksi na osnovni šoli. • Pisanje dnevnika pedagoške prakse

<ul style="list-style-type: none"> • evaluation of class appearances and pedagogical class practice. <p><u>Lab. work:</u></p> <ul style="list-style-type: none"> • two practical instructions in lower secondary school; • 3 observations (teachers), • at least 6 observations (students) • pedagogical school work at school. <p><u>Individual work:</u></p> <ul style="list-style-type: none"> • written lesson plans • to learn about pedagogical documents (annual and daily preparation for educational process, school diary); • work and organization of departmental and school community; • the structure of interest activities, school projects, associations and teacher groups; • realization of class appearances and pedagogical class practice in primary school. • writing of diary of pedagogical practice
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Temeljni študijski viri / Textbooks:

<ul style="list-style-type: none"> • Predmetnik in učni načrti za Biologijo 8 in 9; Naravoslovje 6 in 7 ter biološke izbirne predmete v osnovni šoli. • Učbeniki in druga učna gradiva za osnovno šolo. • Revije: The American biology teacher. Pedagoška obzorja. Center for Educational Policy Studies Journal – CEPS. Vzgoja in izobraževanje. Didakta, idr. • Marentič – Požarnik, B. Psihologija učenja in pouka: od poučevanje k učenju. DZS, Ljubljana, 2019. • Marentič – Požarnik, B. Psihologija učenja in pouka: temeljna spoznanja in primeri iz prakse. DZS, Ljubljana, 2018. • Ivanuš-Grmek, M., in Javornik Krečič, M. Osnove didaktike. Učbenik, Maribor: Pedagoška fakulteta, 2011. • Pinter, S. in Kozina, M. Približajmo naravo otrokom. Ljubljana: Ministrstvo za šolstvo in šport, Zavod za šport Slovenije in Planinska zveza Slovenije, 1998.

Cilji:

<ul style="list-style-type: none"> • usposobiti študente za: • načrtovanje, izvajanje in analizo pouka; • vrednotenje šolskega dela in znanja; • uporabo pedagoško vsebinskih znanj pri pouku, laboratorijskem delu in terenskem delu. • uporabo in preverjanje teoretičnih spoznanj v neposredni pedagoški praksi; • pridobivanje pedagoških izkušenj in razvijanje kompetenc učitelja biologije. • obvladovanje izobraževalne tehnologije.

Objectives and competences:

<ul style="list-style-type: none"> • to train students for: • planning, implementation and analysis of teaching; • assesment of school work and knowledge: • use of pedagogical content knowledge in instructions, laboratory work and outdoor activities in school work; • use and verification of theoretical knowledge in the direct teaching practice; • the acquisition of teaching experience in development of competences of biology teacher • proficiency in use of instructional technologies.

Predvideni študijski rezultati:

Intended learning outcomes:

<p><u>Znanje in razumevanje:</u></p> <ul style="list-style-type: none"> • uporaba različnih strategij, konceptov, modelov, metod in oblik vzgojno – izobraževalnega procesa pri izvajanju pouka; • analiziranje in samo vrednotenje izvajanja in preverjanja dosežkov iz izvedene učne ure. <p><u>Prenesljive/ključne spretnosti in drugi atributi:</u></p> <ul style="list-style-type: none"> • kombinirana uporaba različnih znanj pri izdelavi učne priprave za izvedbo konkretne učne ure; • kompetence učitelja biologije.

<p><u>Knowledge and Understanding:</u></p> <ul style="list-style-type: none"> • use of different strategies, concepts, models, methods and forms of the educational process; • analyzing and self evaluating of the class appearances. <p><u>Transferable/Key Skills and other attributes:</u></p> <ul style="list-style-type: none"> • combined use of different teaching skills at the preparing the implementation of instructions; • biology teacher competences.

Metode poučevanja in učenja:

Learning and teaching methods:

<ul style="list-style-type: none"> • Predavanja v obliki razgovora in diskusij; • demonstracije; • individualno učno delo; • uporaba IKT; • izvedbe in analize učnih nastopov in pedagoške prakse – oblika individualnega dela. 	<ul style="list-style-type: none"> • Lectures in the form of conversation and discussion; • demonstrations; • individual educational work; • use of ICT; • implementation and analysis of teaching instructions and teaching practice - a form of individual work. 	
Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<ul style="list-style-type: none"> • 2 nastopa v OŠ; • opravljene vse obveznosti na pedagoški praksi/ocena dnevnika; 	<ul style="list-style-type: none"> opravil / passed opravil / passed 	<ul style="list-style-type: none"> • 2 pedagogical class appearances in the primary school, • pedagogical practice/ grade of the diary,

Materialni pogoji za izvedbo predmeta :

- predavalnica z multimedijskimi pripomočki;
- računalniška učilnica.

Material conditions for subject realization

- lecture room with multimedia facilities;
- computer room;

Obveznosti študentov:

(pisni, ustni izpit, naloge, projekti)

- 2 nastopa v osnovni šoli;
- 3 vzorčne hospitacije;
- 6 hospitacij kolegov;
- Dvotedenska pedagoška praksa v osnovni šoli, min. 6 nastopov, min. 4 hospitacije, druge pedagoške obveznosti;
- ureditev in oddaja Dnevnika pedagoške prakse;

Students' commitments:

(written, oral examination, coursework, projects):

- 2 appearances in elementary school;
- 3 example observations;
- 6 observations of other students appearances;
- Two weeks of pedagogical practice in elementary school: at least 6 class appearances, 4 observations, other pedagogical obligations;
- arranging the Diary of pedagogical practice;

Reference nosilca / Lecturer's references:

ŠPERNJAK, Andreja, ŠORGO, Andrej. Differences in acquired knowledge and attitudes achieved with traditional, computer-supported and virtual laboratory biology laboratory exercises. Journal of Biological Education, ISSN 0021-9266, 2018, vol. 52, iss. 2, str. 206-220, ilustr., doi: 10.1080/00219266.2017.1298532. [COBISS.SI-ID 23069192]

ŠORGO, Andrej, DOJER, Brina, GOLOB, Nika, REPNIK, Robert, REPOLUSK, Samo, PESEK, Igor, PLOJ VIRTIČ, Mateja, ŠPERNJAK, Andreja, ŠPUR, Natalija. Opinions about STEM content and classroom experiences as predictors of upper secondary school students' career aspirations to become researchers or teachers. Journal of research in science teaching, ISSN 0022-4308, 2018, str. 1-21, ilustr., doi: doi.org/10.1002/tea.21462. [COBISS.SI-ID 23839240]

ŠPERNJAK, Andreja, ŠORGO, Andrej. Dissection of mammalian organs and opinions about it among lower and upper secondary school students. CEPS journal : Center for Educational Policy Studies Journal, ISSN 1855-9719, 2017, vol. 7, no. 1, str. 111-130, tabele. http://www.cepsj.si/pdfs/cepsj_7_1/pp_111-130.pdf. [COBISS.SI-ID 11495497]

DOLNIČAR, Danica, BOH PODGORNIK, Bojana, BARTOL, Tomaž, ŠPERNJAK, Andreja, ŠORGO, Andrej. Predlog meril in kazalcev informacijske pismenosti za srednje šole = Proposed information literacy standards and performance indicators for secondary education. Knjižnica : revija za področje bibliotekarstva in informacijske znanosti, ISSN 0023-2424. [Tiskana izd.], 2018, letn. 62, št. 1/2, str. 69-91, ilustr. [COBISS.SI-ID 1412446]

ŠPERNJAK, Andreja, ŠORGO, Andrej. Pre-service and in-service teachers' views on human reproduction and sex education. V: GÓMEZ CHOVA, Louis (ur.). Edulearn18 : conference proceedings, 10th International Conference on Education and New Learning Technologies, Palma (Spain), 2nd-4th of July, 2018, (EDULEARN proceedings (Internet), ISSN 2340-1117). [Palma]: IATED Academy. 2018, str. 6528-6535. [COBISS.SI-ID 24007432]

ŠPERNJAK, Andreja, ŠORGO, Andrej. Outlines for science digital competence of elementary school students. V: SKALA, Karolj (ur.). MIPRO 2018 : 41st International Convention, May 21 -25, 2018, Opatija, Croatia : proceedings, (MIPRO ... (CD-ROM), ISSN 1847-3946). Rijeka: Croatian Society for Information and Communication Technology, Electronics and Microelectronics - MIPRO. 2018, str. 901-905. http://docs.mipro-proceedings.com/proceedings/mipro_2018_proceedings.pdf. [COBISS.SI-ID 23877896]