Univerza v Mariboru

Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Praktično usposabljanje za poučevanje biologije 2**
Course title:	**Pedagogical practice for biology teaching 2**

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Izobraževalna biologija, dvopredmetni študij 2. stopnje		**2**	**poletni**
Educational Biology, two stream study, 2 nd. degree		**2**	**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
10	**3**		**5**		**102**	**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:	Prerequisites:
Znanja iz pedagogike,psihologije in metodike; Opravljeno Praktično usposabljanje za biologijo I	Skills in pedagogy, psychology and methodics; ; Successfull apearence in Pedagogical practice for biology I

Vsebina:	Contents (Syllabus outline):
Predavanja: • organizacija vzgojno – izobraževalnega dela v srednji šoli; • šolska dokumentacija, predmetnik in učni načrti za gimnazijo in poklicne in strokovne šole; • organizacija strnjene pedagoške prakse; • spoznavanje dokumentacije o opazovanju, spremljanju, izvajanju in ocenjevanju izvedenih dejavnosti na dvotedenski strnjeni pedagoški praksi v srednji šoli. • načrtovanje in izvedba pisne priprave za pouk; • pripravljanje na izvedbo nastopa; • dnevnik pedagoške prakse;	Lectures: • organization of the educational work in secondary school; • school documentation and subject curricula of biology in general and vocational secondary schools; • organization of pedagogical practice; • the documentation of the observation, monitoring, implementation and evaluation of the activities in the continuous two-week teaching practice in secondary school. • planing of educational process – lesson plans for class appearances; • diary of pedagogical practice;

- vrednotenje in refleksija pedagoške prakse.

Laboratorijske vaje:

- izvedba 2 nastopov v SŠ;
- 3 hospitacije učiteljev (vzorčni nastopi),
- najmanj 6 hospitacij kolegov študentov med letom,
- izvedba pedagoške prakse.

Samostojno delo:

- 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

- evaluation of class appearances and pedagogical class practice.

Lab. work:

- 2 practical instructions in secondary school;
- 3 observations (teachers),
- at least 6 observations (students)
- pedagogical school work at school

Individual work:

- 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 secondary school.
- writing of diary of pedagogical practice

Temeljni študijski viri / Textbooks:

- Predmetnik in učni načrti za Biologijo ter Naravoslovje.
- Učbeniki in druga učna gradiva za srednjo šolo.
- Marentič – Požarnik, B. Psihologija učenja in pouka: od poučevanje k učenju. DZS, Ljubljana, 2019.
- Drašler, J., Gogala, N., Povž, M., Sušnik, F., Verčkovnik, T., in Vesel, B. Biologija. Navodila za laboratorijsko delo, delovni zvezek. 23. natis, Ljubljana: DZS, 2019.
- Marentič – Požarnik, B. Psihologija učenja in pouka: temeljna spoznanja in primeri iz prakse. DZS, Ljubljana, 2018.
- Špernjak, A., Cigler, U., in Vavdi, M. Biologija: laboratorijske vaje za gimnazije in srednje šole. Delovni zvezek, 3. natis. Celovec: Mohorjeva, 2018.
- Šorgo, A. Biologija: praktikum za laboratorijsko delo: [za gimnazije in srednje strokovne šole]. Delovni zvezek, 2. natis. Celovec; Ljubljana; Dunaj: Mohorjeva založba, 2017.
- Shields, M. Biology inquiries, Standard-Based Labs, Assessments, and Discussion Lessons. Jossey-Bass Teacher. 2006.

Cilji:

- 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:

- 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:

Znanje in razumevanje:

- 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.

Prenesljive/ključne spretnosti in drugi atributi:

- kombinirana uporaba različnih znanj pri izdelavi učne priprave za izvedbo konkretne učne ure;

Intended learning outcomes:

Knowledge and Understanding:

- use of different strategies, concepts, models, methods and forms of the educational process;
- analyzing and self evaluating of the class appearances.

Transferable/Key Skills and other attributes:

- combined use of different teaching skills at the preparing the implementation of instructions;

• kompetence učitelja biologije.	• biology teacher competences.

Metode poučevanja in učenja: **Learning and teaching methods:**

• Predavanja v obliki razgovora in diskusij; • demonstracije; • individualno učno delo; • uporaba IKT; • izvedbe in analize učnih nastopov in pedagoške prakse – oblika individualnega dela.	• 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:**
• 2 nastopa v OŠ; • opravljene vse obveznosti na pedagoški praksi/ocena dnevnika;	opravil/passed opravil/passed	• 2 pedagogical class appearances in the primary school, • pedagogical practice/ grade of the diary,

Materialni pogoji za izvedbo predmeta : ***Material conditions for subject realization***

• predavalnica z multimedijskimi pripomočki; • računalniška učilnica.	• lecture room with multimedia facilities; • computer room;

Obveznosti študentov: ***Students' commitments:***

(pisni, ustni izpit, naloge, projekti)	*(written, oral examination, coursework, projects):*
- 2 nastopa v srednji šoli; - 3 vzorčne hospitacije; - 12 hospitacij kolegov; - Dvotedenska pedagoška praksa v srednjii šoli, min. 6 nastopov, min. 4 hospitacije, druge pedagoške obveznosti; - ureditev in oddaja Dnevnika pedagoške prakse.	- 2 appearances in secondary school; - 3 example observations; - 12 observations of other students appearances; - Two weeks of pedagogical practice in secondary 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]