



Univerza v Mariboru

Fakulteta za naravoslovje
in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Urejanje in raba kmetijskega prostora
Course title:	Agricultural Use and Land Planning

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Ekologija z naravovarstvom, 1. stopnje		2	Zimski ali poletni
Ecology with nature protection, 1st. degree			

Vrsta predmeta / Course type

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30				15	135	180/6

Nosilec predmeta / Lecturer:

Jeziki / Languages: Predavanja / Lectures:
Vaje / Tutorial:

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

Vsebina:

Content (Syllabus outline):

Spoznavanje povezanosti naravnih procesov, zlasti tistih, ki povezujejo tla, rabo tal in rastline:

- Ponovitev najpomembnejših talnih lastnosti (fizikalne in kemične lastnosti, zrak v tleh, voda v tleh, organski del tal).
- Odnos rastlina – tla (kroženje hranil).
- Razporeditev pedosekvenc v Sloveniji, krajina in krajinski sistemi v Sloveniji, značilnosti slovenske naravne in kulturne krajine, prepoznavanje tal.

Agrarne operacije:

- Hidromelioracijski ukrepi (talna vlaga, merjenje vlage, načini in oblike dreniranja, izbira drenažnega sistema, viri namakanja, kvaliteta vode, načini namakanja, metoda uporabe, časovna in količinska uporaba).
- Komasačije (definicija, namen, zakonitost postopka, sodelujoči v postopku, izpeljava komasačije).

Človekov vpliv na kakovost in zdravje tal

- vpliv različnih oblik kmetijske prakse.

Tehnike in načini sonaravnega urejanja kmetijskega prostora:

- Pridelovalne in nepridelovalne komponente kmetijskega prostora
- Krajinski elementi in strukture
- Orodja in tehnike sonaravnega urejanja prostora

Sonaravno urejanje kmetijskega prostora in kmetijska politika

Get to know the connection between natural processes, especially those that connect the soil, land use and plants:

- Repetition of the main characteristics of soils (physical and chemical properties, air and water in the soil, soil organic matter).
- Relations between soils and plants (nutrient cycle).
- Arrangement of pedosequences in Slovenia, landscape and landscape systems in Slovenia, features of the Slovenian natural and cultural landscape, soil identification.

Agrarian operations:

- Drainage systems and irrigation of soils (soil moisture, moisture measuring, variables in drainage design, forms of drainage systems, choice of drainage system, irrigation water sources, water quality, principles of irrigation, the method of application, timing and rates of application).
- Land consolidation (definition, goals, purposes legislation, subjects involved, implementation phases).

Human impact on soil quality and health:

- Impact of different agricultural practice

Techniques and tools for sustainable management of agricultural land:

- production and non-production components of the agricultural land
- Landscape elements and structures
- Tools and techniques of sustainable land management
- Sustainable management of agricultural land and agricultural policy

Temeljni literatura in viri / Readings:

1. Stritar, A., 1990: Krajina, krajinski sistemi; raba in varstvo tal v Sloveniji. Partizanska knjiga. Ljubljana.
2. Forman R.T.T., Godron M., (1986) Landscape Ecology. John Wiley & Sons. New York
3. Pavle Blaznik et al. (1970) Gospodarska in družbena zgodovina Slovencev. Zgodovina agrarnih panog: 1, Zvezek-Agrarno gospodarstvo. Slovenska akademija znanosti in umetnosti. DZS.
4. Konold W. (1996) Naturlandschaft Kulturlandschaft. Pfeifer Verlag.
5. Posamezni izbrani aktualni strokovni članki domačih založb in revij po izboru predavatelja.

Cilji in kompetence:

Objectives and competences:

Zmožnost zavedanja o procesih in razumevanje zgodovinskega razvoja kmetijskega prostora. Zmožnost prepoznavanja povezav med rastlino in tlemi.

Zmožnost prepoznavanja različnih pedosekvenc in njihov pomen.

Zmožnost poznavanja in uporabe različnih orodij urejanja kmetijskega prostora.

Ozaveščenost o pomenu sonaravnega urejanja kmetijskega prostora.

Zadostno znanje o sonaravnem urejanju kmetijskega prostora tako, da je študent zmožen predvideti ustrezne ukrepe.

Zadostno znanje, da je zmožen urejanje kmetijskega prostora vključiti v ustrezne ukrepe kmetijske politike.

The students are able to be aware of processes and they understand the historical development of the agricultural land.

Students are able to recognize the links between plant and soils.

Students are able to know and to use various management tools for agricultural land management.

Awareness of the importance of sustainable management of agricultural land.

Sufficient knowledge about the sustainable management of agricultural land, so that they are able to foresee appropriate measures.

Sufficient knowledge that they are able to include agricultural land management in the relevant agricultural policy measures.

•

Predvideni študijski rezultati:

Znanje in razumevanje:

Študentje pojasnijo zgodovinski kontekst razvoja kmetijskega prostora.

Prepoznajo povezave med rastlino in tlemi.

Prepoznajo in definirajo pridelovalne in nepridelovalne komponente kmetijske krajine.

Razložijo pomen orodij za urejanje kmetijskega prostora. Pojasnijo temeljne cilje posameznih orodij.

Argumentirano razložijo zakaj, kdaj in kje se lahko izvede posamezna agrarna operacija.

- Izberejo ustrezno kombinacijo ukrepov kmetijske politike, ki zagotavljajo sonaravno urejanje kmetijske krajine.

Prenesljive/ključne spretnosti in drugi atributi:

Uporaba kartografskega materiala

Sposobnost kritičnega razmišljanja

- Spretnost komuniciranja

Intended learning outcomes:

Knowledge and Understanding:

Students can explain the historical context of the development of the agricultural land.

Students are able to recognize the links between plant and soil.

Students are able to recognize and define the production and non-production components of the agricultural land.

Students are able to explain the importance of tools for managing agricultural land.

Students are able to explain the basic goals of each tool.

Students can argued explain why, when and where an individual agrarian operation can be carried out.

- They can choose the appropriate combination of agricultural policy measures that ensure the sustainable management of agricultural land.

Transferable/Key Skills and other attributes:

Use and deal with Cartographic material

Critical thinking

- Demonstrate skills in communications

Metode poučevanja in učenja:

- Predavanja
- Seminarske vaje
- Terenski ogledi

Learning and teaching methods:

- Lectures
- Tutorial
- Field trips

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<ul style="list-style-type: none"> Izdelava projekta - pisno Pisni izpit 	40 60	<ul style="list-style-type: none"> Project work - written Written exam

Reference nosilca / Lecturer's references:

1. RAZPOTNIK VISKOVIĆ, Nika, GANTAR, Damjana, ŠUKLJE ERJAVEC, Ina, ŠMID HRIBAR, Mateja, PIPAN, Primož, BOREC, Andreja, JANŽEKOVIČ, Marjan. Umeščanje kmetijskih objektov v krajino in reševanje prostorskih konfliktov : ciljni raziskovalni projekt : končno poročilo. Ljubljana: Urbanistični inštitut Slovenije: ZRC SAZU: Fakulteta za kmetijstvo in biosistemske vede, 2018. 86 str., ilustr. [COBISS.SI-ID 2903491]
2. GLOERSEN, Erik, PRICE, Martin F., BOREC, Andreja, DAX, Thomas, GIORDANO, Benito. Research for regi committee - cohesion in mountainous regions of the EU : study. Brussels: Directorate-general for internal policies. Policy department B: Structural and cohesion policies, Regional development, 2016. 71 str., ilustr. ISBN 978-92-823-8796-2. ISBN 978-92-823-8795-5.
http://www.europarl.europa.eu/RegData/etudes/STUD/2016/573420/IPOL_STU%282016%29573420_EN.pdf. [COBISS.SI-ID 4124204]
3. BOREC, Andreja. Die Bedeutung der Flurbereinigung für die Erschliessung landwirtschaftlich genutzter Flächen in Slowenien einst und heute. Berichte über Landwirtschaft : Zeitschrift für Agrarpolitik und Landwirtschaft, ISSN 0005-9080, 2000, 78, št. 2, str. 320-334. [COBISS.SI-ID 1662252], [JCR, SNIP, WoS do 13. 5. 2018: št. citatov (TC): 10, čistih citatov (CI): 10, Scopus do 13. 4. 2019: št. citatov (TC): 13, čistih citatov (CI): 13]
4. BOREC, Andreja. Agraroperationen in Slowenien an der Jahrtausendwende = Agrarne operacije v Sloveniji ob prelomu tisočletja. Zbornik Biotehniške fakultete Univerze v Ljubljani, Kmetijstvo, Agricultural issue, ISSN 1408-340X, 1999, zv. 73/1, str. 95-102. [COBISS.SI-ID 1577004]
5. BOREC, Andreja, FLAMBARD, Antonin, PAŽEK, Karmen. Relationships between production system of Slovenian mountain farms and dynamics of overgrowing areas. Agricultura, ISSN 1580-8432. [Print ed.], 2004, vol. 3, no. 1, str. 32-36. [COBISS.SI-ID 2238252]
6. BOREC, Andreja. The Use of ecosystem diversity indicators in assessing the effectiveness of slovenian agri-environmental measures. V: FOTYMA, Mariusz (ur.), KAMÍNSKA, Barbara (ur.). IX ESA Congress, Warszawa, 4-7 September, 2006 : book of proceedings, (Fragmenta agronomica, ISSN 0860-4088, vol. 11). 1st ed. Puławy: Institute of soil science and plant cultivation state research institute, Department of plant nutrition and fertilization. 2006, str. 627-628. [COBISS.SI-ID 2426924]
BOREC, Andreja, NEVE, Nicolas. Natural characteristics of parcels facing land abandonment and forest expansion on Pohorje mountain (Slovenia). V: Sustainable management and development of mountainous and island areas, 29th September - 1st October 2006, Island of Naxos, Greece : international conference : 2. vol.. Naxos: Department of forestry and management of the environment and natural resources Democritus University of Thrace. 2006, vol. 1, str. 72-77. [COBISS.SI-ID 2435372].