



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.
2. Kimberly A. With., (2019) Essentials of Landscape ecology. Oxford University press. Oxford.
3. Pavle Blaznik et all. (1970) Gospodarska in družbena zgodovina Slovencev. Zgodovina agrarnih panog: 1, Zvezek-Agrarno gospodarstvo. Slovenska akademija znanosti in umetnosti. DZS.
4. Borec, A., (ur.) (2021) Agroekologija s primeri agroekoloških praks. Univerzitetna založba. Univerza v Mariboru, Fakulteta za kmetijstvo in biosistemske vede. Maribor.
5. Stritar, A., (1990) Krajina, krajinski sistemi; raba in varstvo tal v Sloveniji. Partizanska knjiga. Ljubljana.
6. Posamezni izbrani aktualni strokovni članki domačih založb in revij po izboru predavatelja predvsem iz področja kmetijske politike.

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.

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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 argue 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
- Terenski ogledi

Learning and teaching methods:

- Lectures
- Field trips

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<ul style="list-style-type: none"> • Pisni izpit 	100	<ul style="list-style-type: none"> • Written exam

Reference nosilca / Lecturer's references:

1. BOREC, Andreja (ur.). Agroekologija s primeri agroekoloških praks. 1. izd. Maribor: Univerza v Mariboru, Univerzitetna založba, 2021. Str. 3-9, ilustr. ISBN 978-961-286-433-0. <https://doi.org/10.18690/978-961-286-433-0.1>, DOI: 10.18690/978-961-286-433-0.1. [COBISS.SI-ID 55849475]
2. BOREC, Andreja. Sharing the experience of the development path of Slovenian mountain farming. V: KRAWCZYK, Wojciech (ur.). European structural measures for mountain farming in the context of domestic needs and expectations : Monograph. Krakow: Instytut Zootechniki Panstwowy Instytut Badawczy = National Research Institute of Animal Production, 2020. Str. 121-134, graf. prikazi. ISBN 978-83-7607-361-3. [COBISS.SI-ID 46945795]
3. PAŽEK, Karmen, IRGOLIČ, Aleš, TURK, Jernej, BOREC, Andreja, PRIŠENK, Jernej, KOLENKO, Matej, ROZMAN, Črtomir. Multi-criteria assessment of less favoured areas : a state level. Acta geographica Slovenica. [Tiskana izd.]. 2018, 58, no. 1, str. 97-108, ilustr. ISSN 1581-6613. <http://www.dlib.si/details/URN:NBN:SI:DOC-6WEUZB1T>, DOI: 10.3986/AGS.962. [COBISS.SI-ID 4359724], [JCR, SNIP, WoS do 4. 11. 2022: št. citatov (TC): 4, čistih citatov (CI): 4, čistih citatov na avtorja (CIAu): 0,57, Scopus do 1. 11. 2022: št. citatov (TC): 7, čistih citatov (CI): 7, čistih citatov na avtorja (CIAu): 1,00]
4. PRIŠENK, Jernej, BOREC, Andreja. Characteristics of value based organic food chains: two cases from Slovenia. Abstract : applied studies in agribusiness and commerce. 2016, vol. 10, no.1, str. 59-63, ilustr. ISSN 1789-221X. [COBISS.SI-ID 4210220]
5. BOREC, Andreja, PRIŠENK, Jernej. Sustainable growth of value based food chains : Balance between quality differentiation, volume and economic performance. Journal of hygienic engineering and design. 2015, vol. 13, str. 57-60. ISSN 1857-8489. <http://www.jhed.mk/filemanager/JHED%20Vol.%2013/03.%20FPP/02%20Andreja%20Borec.pdf>. [COBISS.SI-ID 4061228]