

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	UPRAVLJANJE NARAVNIH NESREČ
Course title:	MANAGEMENT OF NATURAL HAZARDS

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Vede o Zemlji in okolju, magistrski študij 2. stopnje	vsi	2	1
Earth and Environmental Sciences, Master study 2nd level	all		

Vrsta predmeta / Course type Obvezni/Mandatory

Univerzitetna koda predmeta / University course code: MT005

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30	20		20	10	70	6

Nosilec predmeta / Lecturer: dr. Blaž Komac
(sodelujoči: dr. Mateja Ferk, dr. Mateja Breg Valjavec)

Jeziki / Languages: **Predavanja / Lectures:** slovenščina/Slovenian, angleščina/English
Vaje / Tutorial: slovenščina/Slovenian, angleščina/English

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti: Končana prva bolonjska stopnja ali univerzitetni študij VII. stopnje naravoslovnega študija **Prerequisites:** First-cycle Bologna degree or a university degree in the natural sciences

Vsebina: Content (Syllabus outline):

Naravne nesreče so predstavljene kot primer součinkovanja naravnih in družbenih elementov pokrajine. Posebej so izpostavljeni družbeni vidiki naravnih nesreč, saj naravne procese dojemamo kot »nesreče« v odvisnosti od našega raznolikega dožemanja teh procesov in pripravljenosti nanje. Predmet tako prek elementov okolja povezuje naravne znanosti o Zemlji in sodobno družbo, slednje npr. z vidika upravljanja s tveganji, vplivov degradacije okolja, okoljske zgodovine in upravljanja naravnih nesreč. Predstavljene so različne metode upravljanja, vključno z analizo nevarnosti in ogroženosti, socialnogeografskimi vidiki naravnih nesreč, kot sta prožnost in socialne zmožnosti ter re-analizo dogodkov, posebej z geografskimi informacijskimi sistemi, za boljše kompetence za prihodnje soočanje s temi pojavi.

Natural disasters are presented as an example of the interaction of natural and social elements of the landscape. The social aspects of natural disasters are especially exposed, as we perceive natural processes as "disasters" depending on our diverse perception of these processes and our preparedness. The subject thus connects the natural sciences of the Earth and natural disaster management in a modern society through the elements of the environment, such as risk management, effects of land degradation, and environmental history. Various management methods are presented, including hazard and risk analysis, socio-geographical aspects of natural disasters such as resilience and social capabilities, and re-analysis of events, especially with geographic information systems, for better competences to deal with these phenomena in the future.

Temeljni literatura in viri / Readings:

- Kuhlicke, C., Komac, B., Zorn, M. et al. 2011: Perspectives on social capacity building for natural hazards: outlining an emerging field of research and practice in Europe. Environment science & policy 14- 7.
- Walker, G., Whittle, R., Medd, W., Watson, N. 2010: Risk governance and natural hazards. http://eprints.lancs.ac.uk/49475/1/WP2_final.pdf
- Renn, O. 2008: Risk governance – coping with uncertainty in a complex world. London.
- Wisner, B., Blaikie, P., Cannon, T., Davis, I. 1994: At risk – natural hazards, people's vulnerability and disasters. Routledge.
- Zorn, M., Komac, B. 2015: Naravne nesreče kot razvojni izziv. Globalni izzivi in regionalni razvoj. Ljubljana.

Cilji in kompetence:

Študenti se seznanijo s temeljnimi lastnostmi naravnih nesreč. Spoznajo sistematiko vplivnih dejavnikov z vidika geografije, ki povezuje naravne in družbene znanosti. Seznanijo se s sodobnimi metodami analize pokrajine, ogroženosti zaradi naravnih nesreč. Spoznajo sodobne metode upravljanja z naravnimi nesrečami, vključno politične, gospodarske in okoljske vidike. Slušatelji so sposobni zasnovati analizo ogroženosti in jo udejanjiti na izbranem primeru.

Objectives and competences:

Students get acquainted with the basic features of natural disasters. They get acquainted with the systematics of influencing factors from the point of view of geography, which connects the natural and social sciences. They get acquainted with modern methods of landscape analysis, endangerment due to natural disasters. They learn about modern methods of disaster management, including political, economic and environmental aspects. Listeners are able to design a threat analysis and implement it on a selected case.

Predvideni študijski rezultati:

- Poznavanje naravnih nesreč, predvsem njihovih vzrokov in posledic na družbo
- Poznavanje temeljnih metod preučevanja naravnih nesreč
- Usposobljenost za analizo ogroženosti z geografskimi informacijskimi sistemi

Intended learning outcomes:

- Knowledge of natural hazards, in particular on their causes and effects on society
- Knowledge of the basic methods of studying natural hazards
- Risk Analysis by geographic information systems

Metode poučevanja in učenja:

- Predavanja
- Seminar

Learning and teaching methods:

- Lectures
- Seminar

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment
Seminar	40 %	Seminar
Ustni izpit	60 %	Oral exam

Reference nosilca / Lecturer's references:**ČLANKI/PAPERS**

- Ferk, M., Ciglič, R., **Komac, B.**, Lóczy, D. 2020: Management of small retention ponds and their impact on flood hazard prevention in the Slovenske Gorice Hills. Acta geographica Slovenica 60-1.
- **Komac, B.**, Ferk, M., Pipan, P., Tičar, J., Zorn, M. 2020: Natural hazards in Slovenia. The geography of Slovenia: small but diverse. Springer.
- **Komac, B.**, Pavšek, M., Topole, M. 2020: Climate and weather in Slovenia. The geography of Slovenia : small but diverse. Springer.
- Zorn, M., Ferk, M., Lipar, M., **Komac, B.**, Tičar, J., Hrvatin, M. 2020: Landforms in Slovenia. The geography of Slovenia : small but diverse. Springer.
- Zorn, M., Breg Valjavec, M., **Komac, B.**, Volk Bahun, M., Hrvatin, M. 2020: Soils of Slovenia. The geography of Slovenia : small but diverse. Springer.
- Breg Valjavec, M., **Komac, B.** 2018: Novodobna poselitev hudourniških vršajev in nevarnost drobirskih tokov : primer Zgornjesavske doline. Pokrajina v visoki ločljivosti. Ljubljana.
- **Komac, B.** 2017: Prožna mesta - trajnostni razvoj in naravne nesreče. Trajnostni razvoj mest in naravne nesreče. Naravne nesreče 4.
- Kuhlicke, C., **Komac, B.**, Zorn, M. et al. 2011: Perspectives on social capacity building for natural hazards: outlining an emerging field of research and practice in Europe. Environment science & policy 14- 7.
- Zorn, M., **Komac, B.** 2012: Škoda zaradi naravnih nesreč v Sloveniji in svetu med letoma 1995 in 2010. Acta geographica Slovenica 51-1. Ljubljana.

KNJIGE/BOOKS

- **Komac, B.**, Zorn, M., Ciglič, R. 2011: Izobraževanje o naravnih nesrečah v Evropi. Georitem 18. Ljubljana.
- **Komac, B.**, Natek, K., Zorn, M. 2008: Geografski vidiki poplav v Sloveniji. Geografija Slovenije 20. Ljubljana.
- Zorn, M., **Komac, B.** 2008: Zemeljski plazovi v Sloveniji. Georitem 8. Ljubljana.
- **Komac, B.**, Zorn, M. 2007: Pobočni procesi in človek. Geografija Slovenije 15. Ljubljana.

