

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Magistrski raziskovalni seminar
Course title: Thesis Seminar

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Kibernetska varnost, magistrski študijski program druge stopnje	-	Drugi	Tretji
The second cycle masters study programme Cyber Security	-	Second	Third

Vrsta predmeta / Course type

Obvezni / Obligatory

Univerzitetna koda predmeta / University course code:

5-KV-MAG-MRS-2024-02-05

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
15	-	30	-	40	95	6

Nosilec predmeta / Lecturer:

izr. prof. dr. Katarina Rojko, izr. prof. dr. Tea Golob

**Jeziki /
Languages:**

**Predavanja /
Lectures:** Slovenski, angleški / Slovene, English
Vaje / Tutorial: Slovenski, angleški / Slovene, English

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

Pogoj za vključitev v delo je vpis v 2. letnik študija.

Brez posebnih pogojev.

Prerequisites:

The prerequisite is enrolment into the second year of the study.

No special prerequisites.

Vsebina:

Predmet predstavlja praktično pripravo na izvedbo raziskovalne naloge za potrebe magistrske naloge. Pri predmetu študent(ka) izvaja zapletenejšo raziskavo v okviru raziskovalnih projektov za rešitev kompleksnejšega teoretičnega ali empiričnega problema, skozi katero težimo k poglobitvi in kritičnemu ovrednotenju do sedaj pridobljenih teoretičnih in metodoloških znanj.

Content (Syllabus outline):

The course represents the practical preparations for carrying out the research work for the master thesis. In this course, the students implement advanced research techniques for solving the complex theoretical or empirical problem. Its purpose is to deepen and critically evaluate theoretical and methodological skills prior to this course. Students at the beginning of the lectures - in collaboration with the course provider

Študentje na začetku predavanj v sodelovanju z izvajalcem predmeta in povabljenimi vodji raziskovalnih projektov izberejo raziskovalne projektne naloge iz področja, ki jih strokovno najbolj zanima in izvedejo raziskovalne korake oziroma ekspertizo, ki vključuje:

- Opredelitev problema in ciljev raziskave,
- oblikovanje raziskovalnih vprašanj in hipotez,
- konceptualizacijo,
- izbor in utemeljitev raziskovalnih strategij,
- organizacijo in izvedbo empirične raziskave,
- interpretacijo rezultatov,
- zaključek in / ali diskusijo.

and invited leaders of the relevant research projects - select research projects from the areas which are of their interested and implement research steps or expertise, which includes:

- definition of the problem and goals of the research
- developing research questions and hypotheses,
- conceptualisation,
- selection and justification of research strategies,
- organization and implementation of empirical research,
- interpretation of results,
- conclusion and / or discussion.

Temeljni literatura in viri / Readings:

- Wayne C. Booth et al. (2024): *The Craft of Research, Fifth Edition* (Chicago Guides to Writing, Editing, and Publishing) Fifth Edition. University of Chicago Press
- John W. Creswell & J. David Creswell (2018): *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 5th Edition*. SAGE Publications, Inc
- Inger Mewburn et al. (2018): *How to Fix Your Academic Writing Trouble: A Practical Guide*. Open University Press
- Umberto Eco (2015): *How to write a thesis*. Mit Press.

Cilji in kompetence:

Učna enota prispeva k razvoju naslednjih splošnih in predmetno specifičnih kompetenc:

Splošne kompetence:

- poznavanje pomena kakovosti in prizadevanje za kakovost strokovnega dela skozi avtonomnost, samoiniciativnost, (samo)kritičnost, (samo)refleksivnost in (samo)evalviranje;
- Sposobnost pridobivanja, selekcije, analize informacij in možnost njihove interpretacije za celovito reševanje problemov, izzivov in incidentov s področja kibernetike varnosti.

Predmetno-specifične kompetence:

- uporaba metodoloških orodij – izvajanje, koordiniranje in

Objectives and competences:

The instructional unit contributes to the development of the following general and subject-specific competences:

General competences:

- Knowledge of the importance of quality and striving for the quality of professional work through autonomy, self-initiative, as well as (self-)criticism, (self-)reflection and (self-)evaluation.
- The ability to obtain, select, analyze information, as well as to interpret them to comprehensively solve problems, challenges and incidents in the field of cyber security.

Subject-specific competences:

- use of methodological tools - implementation, coordination and organization of research, the use of

<p>organiziranje raziskav, uporaba raznih raziskovalnih metod in tehnik;</p> <ul style="list-style-type: none"> • sposobnost pridobivanja, selekcije, ocenjevanja in umeščanja novih informacij in zmožnost interpretacije; • sposobnost sinteze izvirnih idej, konceptov in rešitev določenih problemov; • poznavanje in razumevanje procesov raziskovanja in sposobnost njihove kompleksne analize; • razvoj veščin in spretnosti pri uporabi znanja za reševanje teoretičnih ali empiričnih raziskovalnih problemov; • uporaba in kombiniranje znanj iz različnih disciplinarnih področij; • sposobnost za reševanje konkretnih raziskovalnih problemov z uporabo znanstvenih metod in postopkov.
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<p>different research methods and techniques;</p> <ul style="list-style-type: none"> • the ability to obtain, select, evaluate and place new information and the ability to interpret the research problem; • competence to form original ideas, concepts and solutions for specific problems from different disciplines; • familiarity with and understanding of processes of research and competence for their complex analysis; • the development of skills and abilities for the use of knowledge to solve theoretical or empirical research problems; • use and combination of knowledge for various disciplinary fields; • the ability to solve research problems with the use of scientific methods and procedures.
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Predvideni študijski rezultati:

<p>Znanje in razumevanje:</p> <p><i>Študent/študentka:</i></p> <ul style="list-style-type: none"> • zna oblikovati relevantno raziskovalno vprašanje na temelju predstavljenega kompleksnega problema • v bibliografskih bazah in bazah podatkov zna poiskati ključne koncepte in teorije, s katerimi pripravi konceptualni okvir raziskave • izvede raziskovalni postopek – od operacionalizacije in izbora raziskovalne metode do zbiranja, analize in interpretacije podatkov pod vodstvom izvajalca predmeta ter okriljem vodje raziskovalnega projekta, ki usmerja raziskovalni proces in mentorira študente • iz analize zna izluščiti rešitev teoretičnega problema ali oblikovati predloge za reševanje kompleksnejših empiričnih problemov • je vključen v domači ali mednarodni raziskovalni projekt, ki se izvaja na
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Intended learning outcomes:

<p>Knowledge and understanding:</p> <p>The student will be able to:</p> <ul style="list-style-type: none"> • formulate relevant research questions based on the present complex problem • search bibliographic databases to find the key concepts and theories to prepare the conceptual framework of research • carry out the research process - from operationalization and selection of research methods to the collection, analysis and interpretation of data under the leadership of the course instructor and the auspices of the research project leader, who directs the research process and mentors the students • • know how to extract from the analysis of the theoretical problem to formulate proposals for solving complex empirical issues • is involved in a national or international research project carried
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fakulteti ali drugih izobraževalnih ali raziskovalnih institucijah ter na koncu prejme ustrezno potrdilo o opravljenih nalogah in pridobljenih kompetencah s strani vodij projektov oziroma fakultete

out at the faculty or at other educational or research institutions and at the end receives an appropriate certificate of completed tasks and acquired competences by the project managers or the faculty

Metode poučevanja in učenja:

- na začetku *kratka predavanja* z aktivno udeležbo študentov (diskusija, vprašanja, primeri, reševanje problemov)
- individualne in skupinske *konzultacije* (diskusija, dodatna razlaga, obravnava specifičnih vprašanj)
- *seminarske vaje* (refleksija izkušenj, študije primera, projektno delo, timsko delo, metode kritičnega mišljenja, diskusija, sporočanje povratne informacije);
- *raziskovalno delo* (z letnim programom je določena ena ali več raziskovalnih tem glede na usmeritev raziskovanja in tekoče raziskovalne projekte)

Learning and teaching methods:

- starting with the lectures with active participation of students (discussion, questions, examples, problem solving)
- individual and group consultations (discussion, additional explanation deals with specific issues)
- tutorials (reflection on experiences, case studies, project work, team work, critical thinking, discussion, feedback);
- research (the annual program has defined one or more research themes in relation to the direction of research and ongoing research projects)

Delež (v %) /
Weight (in %)

Načini ocenjevanja:

Assessment:

Način (pisni izpit, ustno izpraševanje, naloge, projekt):	Delež (v %) / Weight (in %)	Type (examination, oral, coursework, project):
<ul style="list-style-type: none"> • Poročila raziskovalnega dela in eksperimentalnih vaj ter predstavitev poročil 	100 %	The research work reports with seminar reports and final presentation of the reports

Reference nosilca / Lecturer's references:

- ROJKO, Katarina, BRATIČ, Brankica, LUŽAR, Borut. The Bologna reform's impacts on the scientific publication performance of Ph.D. graduates : the case of Slovenia. *Scientometrics*, ISSN 0138-9130, 2020, vol. 124, iss. 1, str. 329-356, ilustr. <https://doi.org/10.1007/s11192-020-03482-w>, doi: 10.1007/s11192-020-03482-w. [COBISS.SI-ID 16975875],
- ROJKO, Katarina, ERMAN, Nuša, JELOVAC, Dejan. Impacts of the transformation to industry 4.0 in the manufacturing sector : the case of the U.S. *Organizacija : revija za management, informatiko in kadre*, ISSN 1318-5454. [Tiskana izd.], Nov. 2020, vol. 53, no. 4, str. 287-305, ilustr. <http://organizacija.fov.uni-mb.si/index.php/organizacija/article/view/1387>. [COBISS.SI-ID 41158147],
- ERMAN, Nuša, ROJKO, Katarina, LESJAK, Dušan. Traditional and new ICT spending and its impact on economy. *Journal of computer information systems*, ISSN 0887-4417, 2020, vol. , iss. , str. 1-13, ilustr.

<https://www.tandfonline.com/doi/full/10.1080/08874417.2020.1830007>, doi: 10.1080/08874417.2020.1830007. [COBISS.SI-ID 44760067]

- GOLOB, Tea, MAKAROVIC, Matej, REK, Mateja. Parents' meta-reflexivity benefits media education of children = La meta-reflexividad de los padres beneficia la educación mediática de los niños. *Comunicar*. Jul. 2023, vol. 31, no. 76, str. 95-103. DOI: 10.3916/C76-2023-08.
- GOLOB, Tea, GORIŠEK, Maruša, MAKAROVIC, Matej. Authoritarian and populist challenges to democracy correspond to a lack of economic, social, and cultural capitals. *Societies*. 2023, vol. 13, iss. 8, str. 1-12, ilustr. DOI: 10.3390/soc13080181.
- GOLOB, Tea, MAKAROVIC, Matej, TOMŠIČ, Matevž. Effective and democratic governance as the condition of digital social innovations in Europe. *Research in social change*. 2022, vol. 14, iss. 1, str. 48-62
- GOLOB, Tea, MAKAROVIC, Matej. Meta-reflexivity as a way toward responsible and sustainable behavior. *Sustainability*. 2022, vol. 14, iss. 9, str. 1-19, DOI: 10.3390/su14095192.