



## STUDIJŲ DALYKO (MODULIO) APRAŠAS

Dalyko (modulio) pavadinimas	Kodas
OPEN SOURCES INTELLIGENCE	

Dėstytojas (-ai)	Padalinys (-iai)
Koordinuojantis: doc. Vytautas Rudzionis	Kauno fakultetas Socialinių mokslų ir taikomosios informatikos institutas Muitinės g. 8, LT-44280 Kaunas
Kitas (-i): vyresnysis laborantas Edgaras Norgaila	

Studijų pakopa	Dalyko (modulio) tipas
First	compulsory

Igyvendinimo forma	Vykdymo laikotarpis	Vykdymo kalba (-os)
Class	5 semestras	English

Reikalavimai studijuojančiajam	
<b>Išankstiniai reikalavimai:</b> Introduction to Programming, Technologies for Presenting Information on the Internet, Computer Networks and Security, Ethical Hacking Technologies.	<b>Gretutiniai reikalavimai (jei yra):</b>

Dalyko (modulio) apimtis kreditais	Whole course	Kontaktinio darbo valandos	Savarankiško darbo valandos
5	130	52	78

Dalyko (modulio) tikslas: studijų programos ugdomos kompetencijos		
To develop the ability to analyse, evaluate and apply in practice information systems security techniques to protect these systems from harmful external influences.		
Dalyko (modulio) studijų siekiniai	Studijų metodai	Vertinimo metodai
Know the implications of information systems security and its management for a modern organisation.	Lectures, exercises, independent work, active learning methods (group discussion; case studies).	Laboratory work
Identifies threats to IS, their causes and possible consequences. Knows the IS risk assessment process	Lectures, exercises, independent work, active learning methods (group discussion; case studies).	Laboratory thesis defences. Individual assignments, report.
Able to select and apply information systems security technologies and methods.	Lectures, exercises, independent work, active learning methods (group discussion; case studies).	Laboratory thesis defences, individual assignments, examinations

Temos	Savarankiškų studijų laikas ir užduotys						Užduotys	
	Paskaitos	Konsultacijos	Pratybos	Laboratoriniai darbai	Praktika	Visas kontaktinis darbas	Savarankiškas darbas	
Key terms and concepts	1					1	3	Literature analysis
Preparation of the work environment	1			2		3	6	Literature analysis. Lab work: setting up intelligence tools, setting up the environment.
Organizational information intelligence	1			2		3	3	Literature review. Laboratory work: selecting a reconnaissance target, defining a goal, drawing up a plan.
Physical information of the organization	1			2		3	6	Literature review. Laboratory work: physical information reconnaissance of a selected target, preparation of a laboratory report.
External information flows of the organization. Organizational employee relationship diagram.	1			2		3	6	Literature review. Laboratory work: information flow diagram and employee communication diagram for a selected target, preparation of a laboratory report.
Digital information	1			2		3	6	Literature analysis. Laboratory work: electronic information reconnaissance of a selected target, preparation of a laboratory work report.
Organization's infrastructure	1			2		3	6	Literature analysis. Laboratory work: diagram of infrastructure components of the selected target, preparation of the laboratory report.
Financial information of the organization	1			2		3	6	Literature analysis. Laboratory work: financial intelligence on a selected target, preparation of a laboratory report.
Information on the dark web	1			2		3	6	Literature review. Lab work: exploring the Dark Web, preparing a lab report.
Intelligence of individuals	1			2		3	3	Literature review. Laboratory work: selecting a reconnaissance target, defining a goal, drawing up a plan.
Identification of employees: identification of the positions and/or work activities	1			2		3	5	Literature review. Laboratory work: reconnaissance of the selected target's work activities, preparation of a laboratory report.
Social network analysis	1			2		3	5	Literature analysis. Laboratory work: researching the

								information of a selected target in social networks, preparation of a laboratory report.
Identifying online activity	1			2		3	5	Literature review. Laboratory work: Internet research of the selected target, preparation of the laboratory report.
Person's physical location	1			2		3	6	Literature analysis. Laboratory work: reconnaissance of the physical location of the selected target, preparation of the laboratory report.
Person's mobile footprint	1			2		3	6	Literature analysis. Laboratory work: reconnaissance of a mobile footprint of a selected target, preparation of a laboratory report.
Colloquium	1					1		
Project defence				2		2		
Laboratory report defence				2		2		
Consultation		2						
Examination						2		
Overall	16	2		32		52	78	

Vertinimo strategija	Svoris proc.	Atsiskaitymo laikas	Vertinimo kriterijai
Laboratory report and defence (L)	50	During semester	The assessment is based on the relevance of the assignment to the requirements, the quality of the assignment, and the student's knowledge and practical skills in the subject matter of the assignment. During the semester, the laboratory assignments are used as a basis for information exploration of the selected organisation, the results are used to prepare a report (according to the provided template) and the report is to be presented and defended in week 16. The report must be uploaded to the VMA at least 48 hours before the defence. Late upload will result in 0 points.
Project (P)	20	During the semester, the exact date is specified in the choice of assignment	Students are assessed on their ability to independently research, analyse, review and present to an audience the results of their chosen or teacher-assigned open source intelligence topic. The assessment also takes into account the content, formatting and quality of the presentation. Analysis of the functionality of the selected OSINT tool (paper) and presentation. Students select one OSINT tool independently or from a list of tools provided by the instructor and evaluate it: - Information about the tool (when it was developed, who developed it, for what purpose, etc.), - What sources of information are used, - The capabilities/functions of the tool, - Brief comparison of features with alternative systems - Summary As an alternative, a new open source intelligence tool can be developed and programmed during the project. - One or several Lithuanian open sources should be used, - Must be able to collect, store and display information

			<ul style="list-style-type: none"> <li>- Must be able to save the results report</li> <li>- Demonstrate the tool during the defence and provide the source code for the tool</li> </ul>
Colloquium (P)	15	~ 8 week	The colloquium consists of 4 open-ended questions which students have to answer in writing, providing theoretical answers as well as practical examples to illustrate the question. The colloquium is timetabled for 1 hour and the student can use all the available literature, as well as a computer to search for relevant information.
Exam (E)	15	During session	The exam consists of 4 open-ended questions which students have to answer in writing, giving theoretical answers as well as practical examples to illustrate the question. The colloquium has a time limit of 1 hour and the student can use all the available literature during the colloquium, as well as a computer to search for relevant information.
			<p>All settlements are scored on a 10-point scale:</p> <p>10-9: Excellent knowledge and skills. Level of assessment. 90-100% correct answers.</p> <p>8-7: Good knowledge and ability, with possible minor errors. Synthesis level. 70-89% correct answers.</p> <p>6-5: Average knowledge and ability, some errors. Analysis level. 50-69% correct.</p> <p>4-3: Knowledge and skills below average, with (substantial) errors. Application level. 20-49% correct.</p> <p>2-1: Minimum requirements are not met. 0-19% correct answers.</p>
Fina grade (G)		During session	$G = L * 0.5 + P * 0.2 + K * 0.15 + E * 0.15$ <b>The course is excluded if the Examination grade E &lt; 5 and/or the final grade RU &lt; 5</b>

Author	Year	Title	Periodinio leidinio Nr. ar leidinio tomas	Place of publication and publishing house or internet link
<b>Compulsory literature</b>				
Nihad A. Hassan and Rami Hijazi	2018	Open Source Intelligence Methods and Tools : A Practical Guide to Online Intelligence		Apress L. P. <a href="https://ebookcentral.proquest.com/lib/viluniv-ebooks/detail.action?docID=5446001">https://ebookcentral.proquest.com/lib/viluniv-ebooks/detail.action?docID=5446001</a>
Kubecka, Chris	2017	Down the rabbit hole: an OSINT journey : open source intelligence gathering for penetration testing		HypaSec
Bielska, Aleksandra	2018	Open Source Intelligence Tools and Resources Handbook		<a href="https://intelligence.eu/uploads/public-documents/OSINT_Handbook_June-2018_Final.pdf">https://intelligence.eu/uploads/public-documents/OSINT_Handbook_June-2018_Final.pdf</a>
<b>Further reading</b>				