DESCRIPTION OF THE COURSE/MODULE

Course unit title	Course unit code
INFORMATION SECURITY AND RISK MANAGEMENT	

Lecturer (s)	Department where course unit is delivered
dr. Renata Danielienė	Vilnius University, Kaunas Faculty, Institute of Social Sciences and Applied Informatics, Muitinės str. 8, LT-44280, Kaunas

Cycle	Level of course unit	Type of the course unit
I (first)	1/1	Compulsory

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Auditoria (online), individual work	4	English

Prerequisites and corequisites	
Prerequisites: Information Systems and Databases, Fundamentals of Information System Security, Digital Forensics and Methods of their Analysis, Analysis and Specification of IS Requirements, Legal Regulations for Cyber Security.	**Corequisites:** Operational Systems and their Security.

Number of ECTS credits allocated	Student's workload	Contact work hours	Individual work hours
5	130	52	78

Purpose of the course unit: programme competences to be developed
Develop the ability to understand key terms of security risk management; understand and explain the interdependencies between security, safety and survival; develop the ability to identify the organization's assets, vulnerabilities, possible threats and risks, develop organization strategy mitigating or avoiding cyber risks.
Provide understanding necessary for information security management, provide knowledge about the importance of information tools for identifying, assessing, monitoring and controlling risks in the enterprise taking in to account international certifications such as CRISC and CISM programs.

Learning outcomes of course unit	Teaching and learning methods	Assessment methods
Will be able to identify security and safety assets, identify their risks, define security and safety requirements.	Lectures, practical work, individual work, active learning methods (discussions, situations modeling).	Practical group work. Presentations of the practical part and the theoretical part. Examination of examples. Discussions. Tests.
Will be able to use modern standards and techniques for information systems security and risk management.	Lectures, practical work, individual work, active learning methods (discussions, situations modeling).	

	Will be able to determine the internal security and safety strategy in the organization, systematically develop it and use modern methods.	Lectures, practical work, individual work, active learning methods (discussions, situations modeling).	

| Course content: breakdown of the topics | Contact work hours | | | | | | | Individual work hours and tasks | |
	Lectures	Consultation	Seminars	Practice classes	Laboratory	Practice	All contact work	Individual work	Tasks
Introduction to IT Risk Management. Basic Cyber Security Concepts.	2			2			4	4	Completing and presenting practical work (group work). Examples, case studies. Discussions. Tests. Examination.
Cyber Threats Actors and Vulnerabilities.	2			2			4	5	
Critical business systems.	2			2			4	5	
Managing Cyber Risks and Leadership impact.	2			2			4	5	
Prevention and protection technologies for the organisation.	2			2			4	5	
Cyber Risks and Law.	2			2			4	5	
Incident response and accountability.	2			2			4	5	
Mitigation Strategy development and implementation.	2			2			4	5	
Presentation of practical group work, discussion and conclusions. Case studies.				8			8	15	
Guidance and revision of group work. Final discussion in working groups on case study.				8			8	4	
Consultations, Exam		4					4	20	
Total:	16	4		32			52	78	

Assessment strategy	Comparative weight percentage	Date of examination	Assessment criteria
Cyber-incidents analysis and discussions (D)	10 %	Time appointed by lecturer during practice classes	Quality and timeliness of the tasks (during the practical sessions) (each task scored from 0 to 10). Each student submits to the teacher a written summary of his/her insights at the end of the discussion. If a student does not provide the teacher with a written summary of his/her insights from any of the practical lecture discussions, his/her practical lecture paper will not be evaluated. The number of discussion assignments (active participation in 7 discussions), the validity of the assignments and the quality of the descriptions will be assessed. Each paper carries equal weight. 3% of the final grade in this category consists of two discussion reports that students produce after their assigned discussions. The summary must be written according to the instructions given by the lecturer during each practical lecture. Criteria for qualitative assessment: follows the instructions given by the teacher, clearly presents ideas, provides a relevant answer to the case study and the question asked. The text cannot be copied from the internet. The specifics of using citation and AI generative models are described below the table. **The descriptions must include the sources**. The assignment will not be accepted if the work does not include sources. If insufficient sources are identified to support the facts presented, the mark will be reduced accordingly.
Quizzes (Q)	25 %	Time appointed by lecturer	The test (students answer multiple-choice questions from the theory part of the test).
Exam (E)	25 %	Time appointed by lecturer	In the test (for example students answer questions from the practical part of the test: multiple-choice questions, solving simulations).
Group work (G)	40 %	Time appointed by lecturer	During the semester, 8 groups of 6 students are formed. At the beginning of the semester, the lecturer announces the assignments for all groups for the whole semester and provides a schedule of assignments to be submitted. Each group submits its work according to the schedule. All group work must be submitted before the beginning of the exams. **Group work consists of several assignments:** - (T=10%) presentation of theoretical material on a given topic, - (W=16%) preparation and presentation of a written paper on a given topic,

			- (FD=7%) final discussion and report, - (Ev=7%) evaluation of written work and presentations prepared by other students. **The detailed assessment strategy and the specifics of the use of AI** (Artificial Intelligence) **generative models are described below the table**. **Sources must be indicated in the descriptions**. A submission will not be accepted if it does not include sources. If insufficient sources are identified in the work to support the facts presented, the mark will be reduced accordingly. Failure to submit work on schedule will result in a reduction in the mark for the group as a whole for each week's delay (-1 point per week). **Each member of the group must be the leader of the group at least once**, which must be indicated in the presentation of the assignments. If a student has not been a group leader at any time during the semester, his/her own group work will be marked down by 1 point. For each paper, each group member shall indicate the percentage of contribution to the paper. The final grade for each student also depends on the percentage of work contributed to the group work. If the team presenting the work indicates that a particular team member did not contribute to the preparation of the work, that team member is considered not to have completed the work. The quality of the presentations and written work is assessed in terms of completeness, logic and clarity of the text, critical thinking, the ability to draw conclusions, make suggestions and answer questions, and the length of the written work (in accordance with the requirements of the assignment). The text in the written assignments cannot be copied from the internet. **Written assignments are compulsory** (all assignments must be assessed with at least 5 marks). Reports are prepared and assessed in accordance with the lecturer's instructions, which are submitted together with the written assignment.

Final grade is calculated as follows
0,10*D+0,25*Q+0,25*E+0,40*G.

All assessment parts are graded in 1-10 mark scale.
10-9: Perfect and very good knowledge.
8-7: Good knowledge and abilities, there may be several mistakes.
6-5: Average knowledge and abilities, there are errors.
4-3: Knowledge and abilities below average, there are significant errors.
2-1: Below minimum requirements.

A comprehensive strategy for evaluating group work.

T (total 10% of the final mark): Each team will prepare a presentation of theoretical material according to the assignment and topic given by the teacher: preparation of a presentation (2%), giving a presentation (3%) and answering 4 questions (5%).

W (total 16% of the final mark): Each team prepares a written assignment in parts according to the assignment and the topic given by the teacher: preparation of the written assignment (8%), preparation of the presentation (2%), giving the presentation (2%) and answering 4 questions (4%).
The text of the written assignment must be coherent and specific, answering the questions in a specific way, not using generalising sentences, reaching the minimum word count specified in the assignment, etc.
The written assignment must be original. If the likelihood that the written assignment has been produced using AI generative models is greater than 20%, the assignment will not be assessed (see more on the use of AI tools below).

FD (7 % of the final mark) Final discussion and report - the mark consists of: active participation in the final discussion - 3 % by submitting answers according to the instructions given by the teacher, preparation of the final discussion report - 4 %). Each member of the group actively participates in the discussion and contributes to the final discussion report according to the assignment and the minimum contribution specified by the teacher.

The theoretical part and the written assignment must be presented according to the specified timetable and the specified assignment.

During the presentations, students use the slides as an additional support and the slides are not meant to be read, so students aiming for the maximum mark do not read the text from the slides and present the specified topic to a high standard (the reading from the slides is assessed with the minimum mark). All members of the group are in attendance during the presentations and each member of the group presents his/her part and answers questions from the audience. If any member of the group is not in attendance, his/her part of the presentation and the Q&A will not be assessed.

The duration of the presentation and the question and answer session must be at least 30 minutes per presentation.

Ev: Assessment of written work and presentations by other students. This activity (summarising and evaluating each written assignment) is assessed throughout the semester with 7% of the final mark. After the presentations, a 30-40 minute summative activity is organised during the practical sessions, during which all students who have not made presentations review the submitted written work and assess whether the presentation and the written work meet all the requirements of the assignment, whether all the questions in the assignment have been answered, assess the quality of the written work and the presentation, and check whether the written work is not prepared with AI generative models. Each group may use all tools, including AI text generation tools, to complete this assignment. All groups in the lecture prepare a multi-paragraph description of the presented written works (uploaded to the eLearning environment) and present it to all students and the lecturer who have attended the lecture.

Please note: The student may use external assistance in the preparation of the assignment: tutorials, internet reliable sources, AI generative models, ensuring that the student adheres to the principles of academic honesty (Copy-Paste is considered plagiarism, or citation must be used, see below for more details).

Examples of the use of AI generative models: it is best to use such tools
- for idea generation,
- for creating a structure,
- for clarifying concepts,
- searching for case studies,
- for generating summaries (for further work),
- for processing large texts (for further work),
- for text analysis.

However, all information generated must be verified and the work must be attributed to external sources, ensuring proper citation (in any case, the Copy-Paste principle is considered plagiarism if no citation is given). It is also important to understand that AI generative models are not co-authors of the work. More on academic integrity at VU (in particular note itms 19 and 21):
https://www.vu.lt/site_files/Studies/Study_regulations/Code_of_academic_ethics_VU.pdf

When should AI generative models not be used in this course? These tools cannot be used:
- In written assignments and presentations (copy-paste) for the presentation of text without appropriate citation.
- For text enhancement (this does not apply to machine translation tools such as Deepl).
- for taking assessment tests during term time and exams.

If AI generative models have been used in the development of the submission?
If AI generative models have been used to generate ideas for the written work, the written work must start with a description of
- The strategy for using AI tools,
- what questions were asked,
- what result was obtained and what percentage of the result was modified and adapted for the thesis.

The appendices must contain the queries (e.g. Chat GPT query: "...") and the results (e.g. Chat GPT generated answer "...") and the name, version and date of use of the generative model. For more information on citation see https://apastyle.apa.org/blog/how-to-cite-chatgpt, https://guides.library.uq.edu.au/referencing/chatgpt-and-generative-ai-tools
The volume of text generated by the AI tools used in the work must also be described in the submission.

If the text is copied from generative model systems, it must be cited, as must any source. The number of citations and AI-generated texts in a written work cannot exceed 20% (e.g. see https://plagiarismcheck.org/blog/what-is-the-acceptable-percentage-of-plagiarism/).

When using AI generative models, it is important that students are critical of the answers they provide, that they are ethical, that the information is accurate, and that each student is transparent with the rest of the group.

Important. **In the case of academic dishonesty**: the lecturer should inform the administration if he/she notices signs of plagiarism or if he/she finds that a piece of written work contains blocks of text generated by artificial intelligence tools (i.e. suspected academic dishonesty). In this case, a process is initiated to assess academic honesty.

Author	Year	Title	Number of periodical publication or publication Volume	The place of publication and publisher or online link
Required reading				
R. Danielienė	2024	Moodle		https://emokymai.vu.lt
Adarsh Nair and Greeshma M. R.	2023	Mastering Information Security Compliance Management : A Comprehensive Handbook on ISO/IEC 27001:2022 Compliance	978180324316 0	Packt Publishing, Limited https://ebookcentral.proquest.com/lib/viluniv-ebooks/detail.action?docID=30652023&query=risk%20management
Shobhit Mehta	2023	ISACA Certified in Risk and Information Systems Control (CRISC®) Exam Guide	978180323690 2	Packt Publishing, Limited https://ebookcentral.proquest.com/lib/viluniv-ebooks/detail.action?docID=30806680&query=risk%20management
Gregory J. Falco, Eric Rosenbach	2021	Confronting Cyber Risk: An Embedded Endurance Strategy for Cybersecurity	978019752654 5	Oxford university press, eBook
Peter H. Gregory	2021	CISM Certified Information Security Manager All-in-One Exam Guide	ISBN-10: 1264268319 ISBN-13: 978126426831 3	McGraw-Hill
ISACA	2021	CRISC Review Manual 7th edition	ISBN-10 1604208503 ISBN-13 978-1604208504	ISACA
Dawn Dunkerley, Bobby E. Rogers	2015	CRISC Certified in Risk and Information Systems Control	9780071847 148	McGraw-Hill
Kristina Narvaez, Betty Simkins, John Fraser	2014	Implementing Enterprise Risk Management: Case Studies and Best Practices	9781118691 960	John Wiley & Sons
		Studies and Best Practices		
Recommended reading				