University of Gdańsk

Subject card

Subject name and code	Analysis of Information Security Risk, PG_00156621		
Field of study	Informatics and Econometrics		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	part-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Business Informatics -> Faculty of Management -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Przemysław Jatkiewicz	
	Teachers	dr inż. Przemysław Jatkiewicz	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	9.0	0.0	0.0	9

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	9	10.0	35.0	54

Subject objectives

To familiarise students with the principles of risk management in information security management processes.To prepare students to carry out vulnerability analysis and risk estimation independently.To prepare students to prepare a risk management plan independently.

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<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[IiEMU2_W07] The student has an extended and established knowledge of ethical norms applicable to business, good practices for its conduct and legal regulations for the protection of intellectual property. The student has an extended knowledge of the risks and responsibilities associated with the computerization of business processes. The student knows the principles of netiquette.</td><td>Assesses the risk of security threats in a specific company.
Characterises the types of risks that may occur in a specific company.</td><td>[SW2] presentation/project/paper/ report</td></tr>
<tr><td>[IiEMU2_W04] The student has an in-depth knowledge of advanced mathematical, statistical, econometric and IT methods that enable the acquisition, processing and analysis of data reflecting the functioning and growth of the national economy and its components, as well as the phenomena and processes occurring in their environment.</td><td>Can develop an information security risk analysis applicable to specific companies.
Can prepare a plan to deal with risks in a specific company.</td><td>[SW2] presentation/project/paper/ report</td></tr>
<tr><td>[IiEMU2_K06] The student knows the need for ethical, sustainable and socially responsible behavior in professional and social life. Initiates and organises activities for the social environment and public interest.</td><td>Deepens his knowledge of risks in computer systems.
Collaborates with a wide range of people obtaining and jointly developing the information necessary to assess and deal with risks.
Has the ability to behave in a way that reduces security risks.
Promotes in his/her environment the basic principles of working safely with information systems.
Is aware of the ethical aspects of data protection and information systems security.</td><td>[SK2] presentation/project/paper/ report</td></tr>
<tr><td>[IiEMU2_U08] The student can analyse business needs and, as appropriate, configure and apply modern information and communication technologies in business management and business communication.</td><td>Can identify risks within information systems.
Selects appropriate methods to assess risks.
Can plan actions to mitigate risks.</td><td>[SU2] presentation/project/paper/ report</td></tr>
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<tr><td>Subject contents</td><td>Risk management process. Risk analysis methodologies. ISO 27005 Information technology - Security techniques - Information security risk management and its application. Establishing the risk management context. Identification of risks - resources, threats, current safeguards, vulnerabilities and consequences of risk materialisation. Sources of information acquisition. Classification of risks in information systems. Determination of probability weights taking into account the vulnerability weights of resources and the weights resulting from the application of preventive measures. Determination of impact weights based on the weights of classified resources and the weights resulting from the application of mitigation measures in relation to the security criteria - Availability, Integrity and Confidentiality. Risk assessment. Conducting a risk analysis to assess vulnerabilities and risks in a business organisation - case study. Dealing with risks. Preparation of a risk handling plan. Communication related to risk management. Risk monitoring and reviews.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic knowledge of vulnerabilities and security in information systems</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>presentation/project/report</td><td>60.0%</td><td>100.0%</td></tr>
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Recommended reading	Basic literature	- Norma ISO 27005, International Organization for Standardization, Aktualna wersja normy. - Liderman K., Analiza ryzyka i ochrona informacji w systemach komputerowych, Helion 2009 - Ustawa o Ochronie Danych Osobowych, Internetowy System Aktów Prawnych http://isip.sejm.gov.pl/, Aktualny tekst ustawy. - Rozporządzenia wykonawcze do Ustawy o Ochronie Danych Osobowych, Internetowy System Aktów Prawnych http://isip.sejm.gov.pl/, Aktualne wersje rozporządzeń w chwili prowadzenia zajęć. - Rozporządzenie Rady Ministrów z dnia 12 kwietnia 2012 r. w sprawie Krajowych Ram Interoperacyjności, minimalnych wymagań dla rejestrów publicznych i wymiany informacji w postaci elektronicznej oraz minimalnych wymagań dla systemów teleinformatycznych
	Supplementary literature	Strona internetowa Generalnego Inspektora Danych OSobowych, http://www.giodo.gov.pl/
	eResources addresses	
Example issues/ example questions/ tasks being completed	Description, comparative critical analysis of 2 risk analysis methodologies	
Work placement	Not applicable	

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