



Subject card

Subject name and code	Information Security Management, PG_00063898						
Field of study	Informatics						
Date of commencement of studies	February 2027	Academic year of realisation of subject			2027/2028		
Education level	second-cycle studies	Subject group			Optional subject group Specialty subject group Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Software Engineering -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Andrzej Wardziński					
	Teachers	dr inż. Andrzej Wardziński					
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	0.0	30
	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	30	6.0	39.0	75		
Subject objectives	The objective of this module is to develop understanding and to acquire knowledge related to information security and privacy issues from the perspective of system analyst						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W11] knows and understands, to an increased extent, the general principles of creation and development of forms of individual entrepreneurship and the economic, legal and other conditions of various types of activities related to the awarded qualification, including the principles of protection of industrial property and copyright law	Students recognises enterprise information assets and corresponding threats. They organise the company's information assets according to the level of criticality. Students determine threats using attack trees. They define possible attack scenarios.			[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
	[K7_W10] knows and understands, to an increased extent, the basic processes occurring in the life cycle of equipment, objects and technical systems, as well as methods of supporting processes and functions, specific to the field of study	Students recognises enterprise information assets and corresponding threats. They organise the company's information assets according to the level of criticality. Students determine threats using attack trees. They define possible attack scenarios.			[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
	[K7_U02] can perform tasks related to the field of study as well as formulate and solve problems applying recent knowledge of physics and other areas of science	Student understands basic concepts related to security risk analysis and protection against security threats and can use these concepts while analysing a concrete IT system			[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information		

Subject contents	Course content – lecture 1.Information assets and their importance 2. Information and information security 3. Trust and security 4. Usable security 5. Information assets classification and labelling 6. Security threats and vulnerabilities 7. Selected security risk management techniques 8.Information Security Management System (ISMS) 9. Selected security risk analysis techniques - attack trees 10. ISO/IEC 27001:2013 scope, requirements and compliance assessment 11. Privacy management 12. Security vs Safety vs Privacy 13. Development of secure software 14. Security of Industrial Automation and Control Systems (IACS)														
Prerequisites and co-requisites	Previous participation in the module <i>Requirements Engineering</i>														
Assessment methods and criteria	<table border="1" data-bbox="451 315 1487 454"> <thead> <tr> <th data-bbox="451 315 794 349">Subject passing criteria</th> <th data-bbox="794 315 1137 349">Passing threshold</th> <th data-bbox="1137 315 1487 349">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 349 794 383">Project</td> <td data-bbox="794 349 1137 383">45.0%</td> <td data-bbox="1137 349 1487 383">45.0%</td> </tr> <tr> <td data-bbox="451 383 794 416">Written exam</td> <td data-bbox="794 383 1137 416">45.0%</td> <td data-bbox="1137 383 1487 416">45.0%</td> </tr> <tr> <td data-bbox="451 416 794 454">Activity/presence</td> <td data-bbox="794 416 1137 454">10.0%</td> <td data-bbox="1137 416 1487 454">10.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Project	45.0%	45.0%	Written exam	45.0%	45.0%	Activity/presence	10.0%	10.0%
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Written exam	45.0%	45.0%													
Activity/presence	10.0%	10.0%													
Recommended reading	Basic literature	1. ISO/IEC 27001 standard 2. IEC/ISA 62443 standards 3. Ross Anderson, <i>Security Engineering</i> , 2-nd edition (available online)													
	Supplementary literature	Standard NIST SP 800-53 Rev. 5 (available online)													
	eResources addresses														
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> 1. Analyse possible scenarios to achieve the attackers goal(s) in a target system. 2. Propose additional security controls that protect against identified attacks. 3. Provide an example of a form of an information asset. 4. Provide examples of 2 types of attributes that can be assigned to attack tree nodes. 5. Provide an example of loss of confidentiality of an information asset. 6. Should risk management be a cyclical process? Justify your answer. 7. Provide an example of transferring a cybersecurity risk. 8. What is the leading international standard for ISMS? Provide the entire identifier, including the letters and the number. 9. What is the recommended practice to address privacy concerns in products and business models? 10. Should the protection of user privacy embrace any principles? If it should, which ones? 														
Practical activities within the subject	Not applicable														

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