

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Informacijska varnost in ekonomija tveganj
Course title: Information Security and Risk Management

Študijski program in stopnja Study programme and level	Modul Module	Letnik Academic year	Semester Semester
Informacijske in komunikacijske tehnologije, 2. stopnja	Napredne internetne tehnologije	1	2
Information and Communication Technologies, 2 nd cycle	Advanced Internet Technologies	1	2

Vrsta predmeta / Course type Izbirni / Elective

Univerzitetna koda predmeta / University course code: IKT2-659

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Druge oblike	Samost. delo Individ. work	ECTS
15	15			15	105	5

**Navedena porazdelitev ur velja, če je vpisanih vsaj 15 študentov. Drugače se obseg izvedbe kontaktnih ur sorazmerno zmanjša in prenese v samostojno delo. / This distribution of hours is valid if at least 15 students are enrolled. Otherwise the contact hours are linearly reduced and transferred to individual work.*

Nosilec predmeta / Lecturer: Doc. dr. Rok Bojanc
Prof. dr. Borka Jerman Blažič

Jeziki / Predavanja / Lectures: slovenščina, angleščina / Slovenian, English
Languages: Vaje / Tutorial:

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

Zaključen študijski program prve stopnje s področja naravoslovja, tehnike ali računalništva.

Prerequisites:

Student must complete first-cycle study programmes in natural sciences, technical disciplines or computer science.

Vsebina:

Poslovne informacije in njihovo varovanje
 e-oblika in vrednost poslovnih informacij
 Ravnanje z varnostnimi tveganji
 varnostna tveganja in grožnje, ranljivost sredstev, obvladovanje tveganj
 Investicije v varnostne ukrepe in rešitve
 vrste varnostnih ukrepov, tehnične, organizacijske, upravljalvske, zavarovalniške
 Ekonomika vlaganj
 analiza stroškov, ocene o donosnosti vlaganj
 Postopek izbire optimalne rešitve
 praktična uporaba metode izbire

Content (Syllabus outline):

Business information and their protection
 e-form and value
 Management of the security risks
 Security risks and threats, vulnerability of the assets, risk management
 Investment in security measures and solutions
 Type of security measures, technical, organizational, managerial, insurance based
 Investment economy
 Cost analysis, assessment of the return of investment
 Optimal selection method for security investment

Standardi in sistemi ravnanja z informacijsko varnostjo
Slovenska in mednarodna regulativa

Practical exercise
Standards – System for information security provision
International and national regulation

Temeljna literatura in viri / Readings:

Izbrana poglavja iz naslednjih knjig: / Selected chapters from the following books:

- M. Peitz, J. Waldfoegel, The Oxford Handbook of the Digital Economy, Oxford Press, 2012. ISBN 978-0-19-539784-0
- T. Moore, D. Pym, C. Ioannidis, Economics of Information Security and Privacy, Springer, 2010. ISBN 978-1-4419-6967-5
- R. Bojanc, B. Jerman-Blažič, M. Tekavčič, Informacijska varnost v podjetniškem okolju: potrebe, ukrepi in ekonomika vlaganj, Ekonomska fakulteta, 2014. VI, 168 str. ISBN 978-961-240-284-6
- B. Schneier, Data and Goliath - The Hidden Battles to Collect Your Data and Control Your World, W. W. Norton & Company, Inc., 2015. ISBN 978-0-393-24481-6

Cilji in kompetence:

Cilji predmeta so zagotoviti, da bo študent, ki bo uspešno končal ta predmet, pridobil:

- Sposobnost analize, sinteze in predvidevanja rešitev ter posledic
- Obvladanje raziskovalnih metod, postopkov in procesov, razvoj kritične in samokritične presoje
- Sposobnost uporabe znanja v praksi
- Avtonomnost v strokovnem delu
- Razvoj komunikacijskih sposobnosti in spretnosti, posebej komunikacije v mednarodnem okolju
- Etična refleksija in zavezanost profesionalni etiki
- Kooperativnost, delo v skupini (in v mednarodnem okolju)

Predmet pripravlja študente, da bodo sposobni:

- Razumeti in uporabiti metode za izbiro optimalnih rešitev za informacijska tveganja
- Postaviti sistem varovanja informacij v podjetju ali organizaciji

Objectives and competences:

Objectives of the course are to assure that student who completes this course successfully will acquire:

- An ability to analyse, synthesise and anticipate solutions and consequences
- To gain the mastery over research methods, procedures and processes, a development of the critical judgment
- Ability to apply the theory in practice
- An autonomy in the professional work
- Communicational-skills development; particularly in international environment
- Ethical reflection and obligation to a professional ethics
- Cooperativity, team work (in international environment)

This course prepares students to be able to:

- Understand and capable to use optimal methods for selecting the optimal solution regarding protection of the information technology and business data in the enterprise or institution
- Prepare the basic organization scheme for information security provision

Predvideni študijski rezultati:

Študent bo znal izbrati ter uporabiti pristope in metodologije za oceno tveganja in rešitve za zagotovitev sistema informacijske varnosti.

Intended learning outcomes:

The student will be capable to select and use methodologies for addressing and managing the risks and to provide the solution for setting the system of information security.

Metode poučevanja in učenja:

Predavanja, seminar, konzultacije, individualno delo

Learning and teaching methods:

Lectures, seminar, consultancy, individual work

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
Pisni ali ustni izpit	50 %	Exam
Seminarska naloga	25 %	Seminar work
Ustni zagovor seminarske naloge	25 %	Oral defense of seminar work

Reference nosilca / Lecturer's references:

- **R. Bojanc**, B. Jerman-Blažič. A quantitative model for information-security risk management. *Engineering management journal*, vol. 25, no. 3, pp. 25-37, 2013.
- **R. Bojanc**, B. Mörec, M. Tekavčič, B. Jerman-Blažič. Model določitve optimalnega obsega vlaganj v informacijsko varnost. *IB revija*, vol. 46, no. 3/4, pp. 53-61, 2012.
- **R. Bojanc**, B. Jerman-Blažič, M. Tekavčič. Managing the investment in information security technology by use of a quantitative modeling. *Information processing & management*, vol. 48, no. 6, pp. 1031-1052, 2012.
- **R. Bojanc**, B. Jerman-Blažič. Quantitative model for economic analyses of information security investment in an enterprise information system. *Organizacija*, vol. 45, no. 6, pp. 276-288, 2012.
- **R. Bojanc**, B. Jerman-Blažič. Towards a standard approach for quantifying an ICT security investment. *Computer standards & interfaces*, vol. 30, no. 4, pp. 216-222, 2008.