

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Preizkušanje, evalvacija in revidiranje informacijskih sistemov
Course title: Testing, Evaluation and Auditing of Information Systems

| Študijski program in stopnja Study programme and level | Študijska smer Study field | Letnik Academic year | Semester Semester |
|---|-------------------------------|-------------------------|----------------------|
| Informatika v sodobni družbi, magistrski študijski program druge stopnje | - | Drugi | Tretji |
| Informatics in Contemporary Society, second cycle Masters Study Programme | - | Second | Third |

Vrsta predmeta / Course type

Obvezni / Obligatory

Univerzitetna koda predmeta / University course code:

1-ISD-MAG-PERIS-2019-05-13

| Predavanja Lectures | Seminar Seminar | Vaje Tutorial | Klinične vaje work | Druge oblike študija | Samost. delo Individ. work | ECTS |
|------------------------|--------------------|------------------|-----------------------|----------------------|-------------------------------|------|
| 30 | - | 20 | - | - | 130 | 6 |

Nosilec predmeta / Lecturer:**Jeziki / Languages:****Predavanja / Lectures:** Slovenski, angleški / Slovene, English**Vaje / Tutorial:** Slovenski, angleški / Slovene, English**Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:**

Študent/študentka mora pred pristopom k izpitu pripraviti in zagovarjati seminarsko nalogo.

Prerequisites:

Prior to the exam, the student has to prepare and present seminar work.

Vsebina:

- preizkušanje informacijskega sistema (IS): preizkušanje programske opreme, metrike merjenja, upravljanje preizkušanja, vrste preizkušanja, umestitev preizkušanja kot del razvojnega in vzdrževalnega procesa
- proces revidiranja IS: revidiranje kompleksnih poslovnih procesov, programske opreme; koraki, standardi

Content (Syllabus outline):

- information System (IS) testing: software testing, metrics measurement, management testing, testing types, installation testing as part of the development and maintenance process
- IS audit process: the audit of complex business processes, software; audit phases / steps, used standards and methodologies

- preizkušanje in evalvacija sistemov za upravljanje s podatkovnimi bazami
- kompleksnost internega nadzora, zunanja presoja
- zaščita informacijskih sistemov
- celoviti informacijski sistemi in integracija informacij s stališča revidiranja
- načini poročanja in vrste komunikacije z uporabniki
- ocenitev tveganja
- načrt revizije v organizaciji, izdelava revizijskega poročila in poročanje vodstvu
- pravni vidiki, etični kodeksi v reviziji ter zakonske obveznosti v EU in RS

- testing and evaluation systems to manage databases
- complexity of internal control, external audit
- protect information systems
- comprehensive information systems and integration of information from the viewpoint of auditing
- reporting levels and types of communication with users
- risk assessment
- audit plan in the organization, preparation of audit reports and reporting to the management
- legal aspects, ethics, audit and legal obligations of the eu and the Republic of Slovenia

Temeljni literatura in viri / Readings:

- Hunton J.E. et al, *Core Concepts of Information Technology Auditing*, Wiley, 2003.
- Jack J. Champlain, *Auditing Information Systems*, Wiley, 2003.
- Sandra Snft, Frederick Gallegos, Aleksandra Davis, *Information Technology Control and Audit*, CRC Press, 2013 (4. izdaja).
- Jagdish P. Pathak, *Information Technology Auditing: An Evolving Agenda*, Springer, 2005.
- Rex Black: *Managing the Testing Process: Practical Tools and Techniques for Managing Hardware and Software Testing*, Wiley, 2002 (2. izdaja).
- Chris C. Schotanus, *TestFrame – An Approach to Structured Testing*, Springer, 2010.

Cilji in kompetence:

Učna enota prispeva k razvoju naslednjih splošnih in predmetno specifičnih kompetenc:

- poznavanje in razumevanje širokega nabora aplikacij informacijsko komunikacijske tehnologije v sodobni družbi
- usposobljenost za načrtovanje informacijskih sistemov in razvoja aplikacij e-poslovanja v sodobni družbi
- sposobnost analize stanja na področju informatizacije organizacije in izdelave predlogov za izboljšanje stanja
- načrtovanje in obvladovanje sprememb ob oblikovanju celovite ocene stanja na področju

Objectives and competences:

The instructional unit contributes to the development of the following general and subject-specific competences:

- knowledge and understanding of a wide range of applications of information communication technology in the modern society
- competence to plan information systems and develop applications of e – business in contemporary society
- competence to analyse the state in the field of informatisation of an organisation and generate suggestions for the improvement of said state
- planning and change management during comprehensive state evaluation in the field of

informatizacije v organizaciji z upoštevanjem relevantnih vidikov

- sposobnost vodenja in vzdrževanja informacijskega sistema in posameznih aplikacij informacijsko komunikacijske tehnologije

informatisation considering various relevant aspects;

- the ability to manage and maintain an information system and individual applications of information communication technology

Predvideni študijski rezultati:

Znanje in razumevanje:

Sposobnost študenta/študentke bo:

- načrtovanje, izvedba in uspešen zaključek projektov preizkušanja, evalvacije in revidiranja informacijskih sistemov
- poznavanje tehnik in orodij, potrebnih za izvajanje opravil preizkušanja, evalvacije in revizije
- uspešno sodelovanje z internim in zunanjim revizorjem IS

Intended learning outcomes:

Knowledge and understanding:

The ability of the students will be:

- planning, execution and successful completion of project testing, evaluation and auditing systems
- knowledge of techniques and tools necessary to perform tasks of testing, evaluation and audit
- successful cooperation with internal and external auditors IS

Metode poučevanja in učenja:

- *predavanja z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov)*
- *laboratorijske vaje*
- *individualne in skupinske konzultacije (diskusija, dodatna razlaga, obravnava specifičnih vprašanj)*

Learning and teaching methods:

- *lectures with active participation of students (explanation, discussion, questions, examples, problem solving)*
- *lab work*
- *individual and group consultations (discussion, additional explanation deals with specific issues)*

Delež (v %) /

Weight (in %)

Načini ocenjevanja:

Assessment:

| | | |
|---|---------------------|---|
| Način (pisni izpit, ustno izpraševanje, naloge, projekt): | | Type (examination, oral, coursework, project): |
| <ul style="list-style-type: none"> • pisni izpit • laboratorijsko delo in seminarska naloga | <p>60</p> <p>40</p> | <ul style="list-style-type: none"> • written exam • seminar paper |