

	<b>UČNI NAČRT PREDMETA/COURSE SYLLABUS</b>
<b>Predmet:</b>	Razvoj spletnih aplikacij
<b>Course title</b>	Development of Web Applications

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Poslovna informatika 1	Poslovna informatika	3.	5.
Business Informatics 1	Business Informatics	3 <sup>rd</sup>	5 <sup>th</sup>

**Vrsta predmeta/Course type** modularni/module

**Univerzitetna koda predmeta/University course code**

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30			30		90	6

**Nosilec predmeta/Lecturer:** Doc. dr. Sebastian Lahajnar

**Jeziki/  
Languages:** **Predavanja/Lectures:** slovenski/Slovenian

**Vaje/Tutorial:** slovenski/Slovenian

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

<ul style="list-style-type: none"> <li>• Pogoj za vključitev v delo je vpis v 3. letnik študija.</li> <li>• Študent mora pred izpitom izdelati seminarsko nalogo v okviru laboratorijskih vaj.</li> </ul>	<ul style="list-style-type: none"> <li>• The prerequisite for participation is enrolment in the third year of study.</li> <li>• Before the examination, students have to successfully prepare and present a seminar paper at the laboratory work.</li> </ul>
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**Vsebina:**

**Content (Syllabus outline):**

<ul style="list-style-type: none"> <li>• <i>Uvod:</i> uporaba informacijskega sistema (IS), spletni IS.</li> <li>• <i>Razvoj IS:</i> metodologije za razvoj IS, življenjski cikli razvoja IS, kaskadni, evolucijski, iterativni življenjski cikel, prototipiranje, agilni razvoj IS.</li> <li>• <i>Spletni IS:</i> zgodovina, internet, delovanje interneta, URL, arhitekture spletnih IS.</li> <li>• <i>Primer metodologije za razvoj spletnih IS:</i> osnove WISDM (Web Information Systems Development Methodology), analiza organizacije, analiza informacij, načrt dela, tehnična rešitev.</li> <li>• <i>Pregled spletnih tehnologij:</i> HTML, JavaScript, XML.</li> <li>• <i>Osnove HTML-ja:</i> osnovni elementi, CSS, tabele HTML, forme HTML,</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Introduction:</i> use of information systems, Internet information systems.</li> <li>• <i>Development of information systems:</i> methodologies for information system development, life cycles of information system development, cascade, evolutionary, iterative life cycles, prototyping, agile development of information systems.</li> <li>• <i>Internet information systems:</i> history, Internet, functioning of Internet, URL, architectures of Internet information systems.</li> <li>• <i>Example of methodology for the development Internet information systems:</i> basics of WISDM (Web Information Systems Development</li> </ul>
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<p>primeri.</p> <ul style="list-style-type: none"> <li>• <i>Osnove JavaScript-a</i>: osnove, povezava z javo, struktura jezika, primer uporabe v HTML-ju.</li> <li>• <i>Osnove XML-ja</i>: osnovna pravila, kratak primer, povezava s HTML – XHTML.</li> <li>• <i>Osnove PL/SQL</i>: struktura jezika, spremenljivke in tipi, enostaven primer, kontrola toka, kurzorji, procedure, obravnava napak.</li> <li>• Portal kot sredstvo za integracijo različnih spletnih aplikacij.</li> </ul>	<p>Methodology), analysis of organisation, analysis of information, work plan, technical solution.</p> <ul style="list-style-type: none"> <li>• <i>Review of web technologies</i>: HTML, JavaScript, XML.</li> <li>• <i>Basics of HTML</i>: basic elements, CSS, HTML tables, HTML forms, examples.</li> <li>• <i>Basics of JavaScript</i>: basics, links with Java, language structure, example of use in HTML.</li> <li>• <i>Basics of XML</i>: basic rules, short example, links with HTML – XHTML.</li> <li>• <i>Basics of PL/SQL</i>: language structure, variables and types, simple example, flow supervision, cursors, procedures, dealing with errors.</li> <li>• <i>Portal</i> as a means of integrating various web applications.</li> </ul>
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### Temeljna literatura in viri/Readings:

Feuerstein, S. in Pribyl, B. (2005). Oracle PL/SQL Programming, Fourth Edition. O'Rilley & Sons.  
 Marchal, B. (2002). XML by Example, 2nd Edition. Que.  
 Musciano, C. in Kennedy, B. (2002). HTML & XHTML: The Definitive Guide, 5th Edition. O'Reilly & Associates.  
 Pfaffenberger, B. et al. (2004). HTML, XHTML, and CSS Bible. 3th Edition, Willey Publishing.  
 Powell, T. (2004). JavaScript: The Complete Reference, 2nd Edition. McGraw-Hill Osborne.  
 Sullivan, D. (2003). Proven Portals: Best Practices for Planning, Designing, and Developing Enterprise Portals. Addison-Wesley.  
 Vidgen, R. et al. (2002). Developing Web Information Systems, Butterworth-Heinemann Information Systems Series, str. 272.

### Cilji in kompetence:

*Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc:*

- fleksibilna uporaba znanja v praksi;
- avtonomnost, (samo)kritičnost, (samo)refleksivnost, samoocenjevanje in prizadevanje za kakovost;
- sposobnost za reševanje konkretnih delovnih problemov z uporabo znanstvenih metod in postopkov;
- koherentno obvladanje temeljnega znanja, pridobljenega pri obveznih predmetih, ter sposobnost povezovanja znanja z različnih področij in njegova uporaba v praksi;
- sposobnost uporabe informacijsko-komunikacijske tehnologije in sistemov na področju upravljanja in poslovanja;
- sposobnost za skupinsko projektno delo na področju informatike;

### Objectives and competences:

*The learning unit mainly contributes to the development of the following general and specific competences:*

- flexible use of knowledge in practice;
- autonomy, (self-)criticism, (self-)reflection, self-evaluation and efforts towards quality;
- the ability to solve concrete work problems using scientific methods and procedures;
- coherent management of fundamental knowledge gained in obligatory courses and the ability to link the knowledge of various fields and apply it in practice;
- the ability to use information and communication technology and systems in the field of business and management;
- the ability to work in a project team in the field of informatics;

<ul style="list-style-type: none"> <li>• znanje o načinih predstavitve, zapisa in modeliranja informacije;</li> <li>• usposobljenost za načrtovanje sistemov;</li> <li>• razvoj programske opreme;</li> <li>• razumevanje računalniških sistemov in arhitektur;</li> <li>• znanje o računalniških komunikacijah.</li> </ul>	<ul style="list-style-type: none"> <li>• knowledge of the methods of presenting, recording and modelling information;</li> <li>• the ability for system planning;</li> <li>• development of software;</li> <li>• understanding of computer systems and architectures;</li> <li>• knowledge of computer communications.</li> </ul>
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### **Predvideni študijski rezultati:**

Znanje in razumevanje:

*Študent/Študentka:*

- pozna in razume pomen razvoja spletnih informacijskih sistemov;
- pozna in razume arhitekturo in delovanje spletnih aplikacij;
- pozna in razume osnove metodološkega pristopa za razvoj spletnih aplikacij;
- pozna osnove HTML-ja in ga uporablja;
- pozna in razume pomen in vlogo XML-ja;
- pozna osnove JavaScripta;
- pozna osnove PL\_SQL-ja in ga uporablja;
- pozna in razume vlogo portala kot sredstva za integracijo različnih spletnih aplikacij.

### **Intended learning outcomes:**

Knowledge and understanding:

*Students:*

- know and understand the importance of the development of Internet information systems;
- know and understand the architecture and functioning of web applications;
- know and understand basic methodological approach to the development of web applications;
- know the basics of HTML and are able to use it;
- know and understand the importance and role of XML;
- know the basics of JavaScript;
- know the basics of PL\_SQL and are able to use it;
- know and understand the role of portal as a means of integrating various web applications.

### **Metode poučevanja in učenja:**

- *predavanja* z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov);
- *seminarske vaje* (razlaga, diskusija, vprašanja, primeri, sporočanje povratne informacije);
- *laboratorijske vaje* (refleksija izkušenj, samostojna priprava seminarske naloge z izbranega področja, predstavitev in zagovor naloge, diskusija, sporočanje povratne informacije);
- individualne *konzultacije* (diskusija, dodatna razlaga, obravnava specifičnih vprašanj).

### **Learning and teaching methods:**

- *lectures* with active participation of students (explanation, discussion, questions, examples, problem solving);
- *tutorial* (explanation, discussion, questions, examples, feedback);
- *laboratory work* (reflection on experience, independent preparation of seminar paper in a chosen field, presentation and defence of the paper, discussion, feedback);
- individual *consultations* (discussion, additional explanation, addressing specific issues).

<b>Načini ocenjevanja:</b>	Delež (v %) Weight (in %)	<b>Assessment:</b>
Način (pisni izpit, ustno spraševanje, naloge, projekt): <ul style="list-style-type: none"> <li>• pisni (ustni) izpit</li> <li>• seminarska naloga s predstavitevijo in zagovorom</li> </ul>	70 30	Types (written examination, oral examination, coursework, project): <ul style="list-style-type: none"> <li>• written (oral) exam</li> <li>• seminar paper presentation and defence</li> </ul>