UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	Spletno programiranje
Course title:	Web Programming

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Informatika v sodobni družbi, visokošolski strokovni in univerzitetni študijski program prve stopnje	-	Drugi	Četrti
Informatics in Contemporary Society, first cycle Professional Study Programme and Academic Study programme	-	Second	Fourth

Vrsta predmeta / Course type Obvezni / Obligatory

Univerzitetna koda predmeta / University course code: 1-ISD-VS,UN-SP-2019-05-13

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
30	-	45	-	-	105	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:

Pogoj za vključitev v delo je vpis v 2. letnik študija.
Pogoj za opravljanje študijskih obveznosti je izdelana seminarska naloga.

Prerequisits:

The condition for attendance is enrolment in the 2nd year of studies.
The exam condition is a finished seminar paper.

Vsebina:

- Sodobne spletne tehnologije. Osnove spletnega okolja.
- Elementi spletne strani. Jezik HTML. Oznake HTML. Formularji in dogodki.
- Osnove slogovnih predlog CSS.
- Jezik XML.
- Osnove DTD. Validacija XML in XHTML.
- Spletno programiranje pri klientu. Jezik JavaScript in objektni model DOM.

Content (Syllabus outline):

- Contemporary web technologies. Fundamentals of a web environment.
- Web page elements. The HTML language. HTML tags. Forms and events.
- Cascading style sheet (CSS) fundamentals.
- The XML language.
- DTD fundamentals. Validation of XML and XHTML.

• Spletno programiranje na strežniku. Jezik PHP/Django Python. • Osnove relacijskih podatkovnih baz. • Poizvedovalni jezik SQL. Uporaba podatkovnih baz v spletnih aplikacijah. • Spletna ogrodja. Primer ogrodja (Django). • Spletna varnost – osnove SQL varnosti, seje in gesla.	• Client based web. programming. JavaScript programming language and the DOM object model. • Server based web programming. The PHP language/Django Python • Relational database fundamentals. • The SQL query language. Use of databases in web applications. • Web frameworks. Web application development examples (Django). • Basics of internet security – SQL injection, sessions and passwords

Temeljni literatura in viri / Readings:

- Oliver, D., Morrison, M. (2006): HTML and CSS in 24 hours. Indianapolis: Sams.
- Young, M.J. (2002): XML: step by step, 2nd Edition. Redmond: Microsoft Press.
- Disbrow, S.W. (2001): JavaScript Weekend Crash Course. Hungry Minds.
- Goodman, D., Morrison, M. (2004): JavaScript Bible, 5th Edition. Indianapolis : Wiley Publishing.
- Hribar, P. (1998): Spoznajmo JavaScript: programiranje spletnih strani. Nova Gorica: Flamingo.
- Štrancar, M., Klemen, S. (2005): PHP in MySQL na spletnem strežniku Apache, druga izdaja. Založba Pasadena.
- Welling, L., Thomson, L. (2008): PHP and MySQL Web Development. Addison-Wesley Professional.
- Django tutorial https://www.djangoproject.com/start/

Cilji in kompetence:	**Objectives and competences:**
Učna enota prispeva k razvoju naslednjih splošnih in predmetno specifičnih kompetenc: • usposobljenost za samostojno in avtonomno uporabo, nadzor in vzdrževanje informacijsko komunikacijske tehnologije v organizaciji • poznavanje tehnologij za spletno programiranje na strani klienta in strežnika ter razvoj aplikacij • sposobnost zapisati problem v obliki algoritma in pretvorba algoritma v računalniški program z uporabo sodobnih programskih orodij • razumevanje in uporaba računalniških sistemov in arhitektur	*The instructional unit contributes to the development of the following general and subject-specific competences:* • competence for independent and autonomous use, monitoring and maintenance of information communication technology in an institution • knowledge of client and server side web programming technologies and applications development • the ability to write the problem in the form of an algorithm and converting the algorithm into a computer program using modern programming tools • understanding and use of computer systems and architectures

Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje: *Študent/študentka:* • razvije logično razmišljanje in sposobnosti načrtovanja programov • razume pomen načrtovanja in testiranja programske opreme • zmore dekompozicijo večjega problema na več manjših in obvladljivih • razume, kako deluje internet • operativno pozna programske jezike za spletno programiranje • spozna razmerja oblika-funkcija • je sposoben izdelati dinamično spletno stran	Knowledge and understanding: *Student:* • develops logical thinking and software design abilities • understands the importance of design and testing of software • is able to decompose a large problem into several smaller, controllable problems • understands the basic internet technologies • has operative knowledge of web programming languages • learns about the form-function relationship • is able to produce a dynamic web page

Metode poučevanja in učenja:	**Learning and teaching methods:**
• *predavanja* z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov) • *vaje,* kjer bodo študentje na konkretnih problemih ponovili, utrdili in dodatno osvetlili pojme in metode, spoznane na predavanjih • *seminarske naloge:* z njimi bodo študentje stimulirani, da sami preizkusijo snov, ki bo obravnavana na predavanjih in vajah	• *lectures* with active participation of students (explanations, questions, cases, problem solving) • *lab work:* where students will use practical cases to refresh, reinforce and gain addition insight into the ideas and methods they've encountered at lectures • *seminar papers:* will stimulate the students to apply and test the knowledge gained at lectures and lab work

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt): • pisni/ustni izpit • domače naloge • seminarska naloga Študent lahko pristopi k pisnemu izpitu po opravljenih domačih nalogah in seminarski nalogi, pri katerih mora doseči vsaj 50% uspešnost.	 50 30 20	Type (examination, oral, coursework, project): • written/oral exam • homeworks • seminar paper Student can take part in the written exam, after he/she completes his/her homeworks and the seminar paper with at least 50% success.