Study program: Information technology

Course title: INFORMATION TECHNOLOGY

Teacher(s): Vesna S. Ružičić, Nebojša Lj. Stanković

Course status: mandatory

Number of ECTS credits: 6

Condition: none

Course objectives

Consolidation of input basic knowledge in standardized fields and sub-fields of IT, for normal further monitoring of teaching, both in the fields of IT and in other subjects and business applications of IT in further work.

Learning outcomes

The outcomes enable the student to 1) get to know the historical development of IT and use the basics of standardized terminology in IT; 2) understand and explain the organization and presentation of data, multimedia, and elements of protection; 3) introduce the basics of programming languages in IT; 4) learns the basics of computer software and system documentation; 5) system-hardware and user configures Internet services, gets to know Web systems and technologies; 6) get to know and use local networking topologies; 7) learns the basics of computer graphics; 8) recognizes the structure of the computer system and microprocessor; 9) classifies and applies input-output devices; 10) configures the macro architecture of the computer system; 11) knows the performance and classes of storage devices; 12) applies basic knowledge.

Summary of topics

Theoretical classes

The place and role of IT in comparison with other fields of work and creativity and disciplines such as computer science, software engineering, information systems, and computer engineering. Topics: 1) introduction to IT terminology and systems, 2) history of computing; 3) presentation of data; 4) computer hardware; 5) computer software; 6) computer application software; 7) computer networks; 8) internet; 9) security and data protection; 10) databases, knowledge bases, and information systems; 11) development and application of new IT.

Practical teaching

Exercises, homework, colloquiums, seminar work. The following topics are covered: (1) basic terms, functional diagram of a computer; basic computer parts (hardware); (2) Operating system, settings, installations, utilities; (3) Computer networks and Internet, Web, e-mail, protection; (4) Creating presentations; (5) Word processing; (6) Work with tables.

Recommended literature

[1] Graham Brown, Brian Sargent (2021), *Cambridge International AS Level Information Technology*, Hodder Education, ISBN 1510483055, 9781510483057

[2] David Watson, Graham Brown (2021), *Cambridge IGCSE Information and Communication Technology*, Hodder Education, ISBN 1398320927, 9781398320925

[3] Joe Habraken (2022), *Microsoft Office Inside Out (Office 2021 and Microsoft 365)*, Pearson Education, Inc., ISBN 0137564090, 9780137564095, https://ptgmedia.pearsoncmg.com/images/9780137564095/samplepages/9780137564095_Sample.pdf

[4] Joan Lambert (2019), *Microsoft Word 2019 Step by Step,* Pearson Education, Inc., ISBN 1509305874, 9781509305872, https://ptgmedia.pearsoncmg.com/images/9781509305872/samplepages/9781509305872_Sample.pdf

[5] Brian Ireson, Marissa Kain, Thelma C. Tippie (2019), *Excel 2019 Level 1*, The Computer Workshop, Inc, https://www.tcworkshop.com/data/Downloads/TCW_Courseware/Excel/Excel_2019_Level_1.pdf

[6] Paul McFedries (2019), *Microsoft Excel 2019 Formulas and Functions*, Pearson Education, Inc., ISBN 1509306196, 9781509306190, https://ptgmedia.pearsoncmg.com/images/9781509306190/samplepages/9781509306190_Sample.pdf

[7] Nebojša Stanković, Vesna Ružičić (2022), *Informacione tehnologije*, Fakultet tehničkih nauka Čačak, ISBN 978-86-7776-222-3

Number of active classes: 4	**Theoretical classes: 2**	**Practical teaching: 2**

Teaching methods

A combination of classical teaching with E-learning and distance learning and with the specified literature, interactive teaching with multimedia contents, in a room (computer classroom) equipped with a video beam and online access to the Internet.

Evaluation (maximum number of points 100)

Exam prerequisites:	No. of points:	**Final exam:**	No. of points:
Homework	10	Final exam (written):	30
Seminary work	20	Final exam (oral):	20
Colloquiums	20		