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| 1. | Course Title | Human-computer interaction design |
| 2. | Code | F18L3S010 |
| 3. | Study program | Software engineering and information systems |
| 4. | Study Program Organizer | Faculty of Computer Science and Engineering |
| 5. | Degree (first, second, third cycle) | first cycle |
| 6. | Academic year / semester<br>3 / summer / optional | 7. ECTS credits<br>6 |
| 8. | Teacher | full professor Suzana Loshkovska, associate professor SoNja Gievska, associate professor Nevena Ackovska, assistant professor Ivan Kitanovski |
| 9. | Course enrollment prerequisites | Алгоритми и податочни структури |
| 10. | Course program goals (competencies):<br>The purpose of the course is to introduce the basic principles for designing interactive computer systems to students. For this purpose the process of designing interactive systems, design phases (collection and analysis of requirements, prototyping, implementation and usability testing) will be introduced to students. Upon completion of the course, the student is expected to demonstrate knowledge of the process and phases for designing interactive systems and can independently or in a team design and implement a prototype of interactive system. | |
| 11. | Course program content:<br>(1) Introduction, terminology, history. (1) Human in the human-computer interaction, physical characteristics, cognitive aspects. (1) Usability, principles, standards, accessibility, user experience. (1) Human computer interaction design process, approaches and features of the design process. (2) Collection of requirements, interviewing techniques, observation, defining personas and scenarios. (1) Representation, sketches, storyboards, prototypes, low fidelity prototypes, high fidelity prototypes. (1) Task analysis. (3) Principles for interactive design, elements of visual interfaces, error handling, help, and documentation. (2) User interface evaluation, evaluation methods and techniques, evaluation measures, usability heuristics and usability testing principles. | |
| 12. | Learning methods:<br>Lectures using presentations, interactive lectures, exercises (using equipment and software packages), teamwork, case studies, invited guest lecturers, independent preparation and defense of a project assignment and seminar work. | |
| 13. | Total available time | 6 ECTS x 30 hours = 180 hours |
| 14. | Distribution of the available time | 30 + 45 + 15 + 15 + 75 = 180 hours |

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| 15. | Teaching activity forms | 15.1. | Lectures – theoretical teaching | 30 hours |
| | | 15.2. | Exercises (laboratory, auditory), seminar papers, teamwork | 45 hours |
| 16. | Other activity forms | 16.1. | Project Tasks | 15 hours |
| | | 16.2. | Independent Learning Tasks | 15 hours |
| | | 16.3. | Home learning | 75 hours |
| 17. | Assessment methodology | | | |
| | 17.1. | Tests | | 10 points |
| | 17.2. | Seminar paper/project (presentation: written and oral) | | 10 points |
| | 17.3. | Activity and learning | | 10 points |
| | 17.4. | Final exam | | 70 points |
| 18. | Assessment criteria (points/grade) | | up to 50 points | 5 (five) (F) |
| | | | 51 to 60 points | 6 (six) (E) |
| | | | 61 to 70 points | 7 (seven) (D) |
| | | | 71 to 80 points | 8 (eight) (C) |
| | | | 81 to 90 points | 9 (nine) (B) |
| | | | 91 to 100 points | 10 (ten) (A) |
| 19. | Course completion and final exam requirements | | Realized activities 15.1 and 15.2 | |
| 20. | Teaching Language | | Macedonian and English | |
| 21. | Teaching quality evaluation method | | Internal evaluation mechanisms and questionnaires | |
| 22. | Course Material | | | |
| | 22.1. | Mandatory course material | | |

| | No. | Author | Title | Publisher | Year |
|---|---|---|---|---|---|
| | 1 | David Benyon | Designing Interactive Systems: A Comprehensive Guide to HCI, UX & Interaction Design | Trans-Atlantic Publications, Inc.; Comprehensive edition | 2013 |
| | 2 | Jenny Preece, Helen Sharp, Yvonne Rogers | Interaction Design: Beyond Human-Computer Interaction | Wiley; 4 edition | 2015 |
| | 3 | Ben Shneiderman, Catherine Plaisant, Maxine Cohen | Designing the User Interface: Strategies for Effective Human-Computer Interaction, Global Edition | Pearson Education Limited; 6th edition edition | 2017 |

22.2. Additional course material

| No. | Author | Title | Publisher | Year |
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