| Course code IFI6075 | Multimedia | | |
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| ECTS credits: 4 | Contact hours: 42 | Semester: Autumn | Exam |
| Course objective: | The objective of the course is to provide theoretical knowledge (basics of design etc) and practical skills for the creation multimedia based software using different authoring tools and existing media files. | | |
| Brief description of course content: | The nature and concept of multimedia. Authoring tools. Basic principles of design. Text (fonts and styles, usage). Use of computer graphics. Colours (colour theory, colour space, usage). Creating multimedia based software using authoring tool Adobe Flash. Course consists of seminar type lectures and practical classes where students are expected to be actively involved.<br>Independent work: In addition every student must submit individual assignment, where (s)he demonstrates the ability and skill of creation of multimedia based applications. | | |
| Learning outcomes: | A student has:<br>• After this course student knows and understands the concept of multimedia;<br>• Basic design principles; the nature and usage of different types of digital media.<br>• Student can choose multimedia elements appropriate for her aims;<br>• Can use at least one multimedia authoring tool and create multimedia based applications. | | |
| Assessment methods: | Exam. Prerequisite for access to exam is active participation at lectures. To pass exam, students must pass written test (50% of grade) and complete practical exercise (50% of grade). | | |
| Responsible lecturer: | Andrus Rinde | | |
| Title in Estonian: | Multimeedium | | |
| Prerequisite course: | IFI6001 - Arvuti töövahendina | | |
| Compulsory literature: | Lecture Notes can be found at http://www.cs.tlu.ee/~rinde/mm_materjal/ | | |
| Replacement literature: | To pass this course student must participate in classes. | | |
| Subscription to the course and exam: | Number of participants depends on size of computer lab.<br>To access to exam student must submit all homework for deadline. | | |

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| Requirements for independent work: | Students must submit individual assignments, where he/she demonstrates the ability and skill of design and creation of multimedia based applications. Homework descriptions and deadlines are available on webpage www.cs.tlu.ee/~rinde/oppetoo/2013/mm. |
| Assessment criteria | Each higher level includes all the lower levels.<br><br>1. Design<br><br>A – Is able to create balanced design, can take into account different design principles and explain his/her decisions.<br>B – Is able to choose appropriate colour scheme for his/her multimedia application and explain it.<br>C – Is able to choose suitable media elements and explain his/her choices.<br>D –Is able to format good looking textual information taking into account readability issues.<br>E – Knows most important design principles, can choose proportions and elements for user interface for his/her multimedia application.<br><br>2. Multimedia software development<br><br>A – Is able to create multimedia applications which can communicate with other applications.<br>B – Is able to create multimedia applications which uses external media and data files.<br>C – Is able to manipulate with different objects, use different interaction methods.<br>D – Is able to manipulate with different objects, create basic simulations.<br>E – Is able to use multimedia authoring tools to create basic slide-show like applications. |
| Information about the content of the course: | The classes take place on Monday's at 8:15 – 11:45 |
| Week 1 – 02.09.2013 | Lecture: Introduction to course, the concept and history of multimedia. Communication – why multimedia. Basics of animation.<br>Exercise: Introduction to authoring tool Adobe Flash Professional CS6. Creation of objects and simple animations. |
| Week 2 – 09.09.2013 | Exercise: Morphing, masking, using audio in Flash animation. Different objects, guided animations. |
| Week 3 – 16.09.2013 | Lecture: Introduction to design, most important design principles.<br>Exercise: Using bitmap graphics in Flash, skeletal animation. |
| Week 4 – 23.09.2013 | Exercise: Introduction to ActionScript programming language. Creation of basic interactions, frame actions. Manipulating with objects, response |

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| | to different events. |
| Week 5 – 30.09.2013 | Lecture: Introduction to design of software user interface.<br>Exercise: Individual work. |
| Week 6 – 07.10.2013 | Exercise: Reading data from XML file, using external files. Dynamic object handling with ActionScript, classes. |
| Week 7 – 14.10.2013 | Exercise: Managing object hierarchy, handling child and parent objects. Arrays. |
| | WEEK FOR INDIVIDUAL WORK. NO CLASSES. |
| Week 8 – 28.10.2013 | Lecture: Text, history, principles of formatting, readability.<br>Exercise: Manipulating text with ActionScript. |
| Week 9 – 04.11.2013 | Exercise: Using object's internal timeline. Using audio with ActionScript. |
| Week 10 – 11.11.2013 | Exercise: Individual work on finalizing application (game) created during classes.<br>Lecture: Colours, Colour models, palettes. Principles of using colours. |
| Week 11 – 18.11.2013 | Exercise: Manipulating colours with ActionScrip (creating "coloring book"). Drawing with ActionScript (creating painting application). |
| Week 12 – 25.11.2013 | Lecture: Principles of using different media elements.<br>Exercise: Manipulating bitmap graphics with ActionScript. |
| Week 13 – 02.12.2013 | Exercise: Using Audio and video clips dynamically with ActionScript. Using PHP for data exchange between Flash application and server. |
| Week 14 – 09.12.2013 | Converting Flash animations to Javascript and HTML 5. Playing media clips with Javascript.<br>Q&A. |

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| Õppeainet kureeriv üksus: | Informaatika Instituut |
| Kursuseprogrammi koostaja | Andrus Rinde |
| Allkiri: | |
| Kuupäev: | 19.08.2013 |

Kursuseprogramm registreeritud akadeemilises üksuses

| Kuupäev | |
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| Õppeassistendi nimi | Jana Tomson |
| Allkiri | |