

<b>IFI7102</b>	<b>Computer Skills and Programming Update</b>		
<b>Study load:</b> 3 (ECTS/EAP)	<b>Load of contact hours:</b> 20	<b>Study semester:</b> Fall 2013	Exam
<b>Objectives:</b>	To bring particular computer and programming skills to the level required by the studies. To create opportunities for the development of Java-based applications. To introduce programming basis and object-oriented principles using Java programming language.		
<b>Course outline:</b>	The course is an update to particular software skills, hardware and network know-how for students outside of computer science. Includes introduction to basic programming, especially Java, with development of applications for small problems.		
<b>Learning Outcomes:</b>	Course participant has basic skills in computer use and programming. Using them, he can continue his studies in other courses which require knowledge about programming		
<b>Assessment Methods:</b>	Pass/fail assessment.  Each student must pass the assessment, which consists of individual homeworks defense and practical test.		
<b>Teacher(s):</b>	Isaias Barreto da Rosa, PhD		
<b>Subject name in Estonian:</b>	Arvuti kasutamise ja programmeerimise tasanduskursus		
<b>Prerequisite subject(s):</b>	-		
<b>Compulsory Literature:</b>	Lewis, John and Loftus, William (2011) Java Software Solutions: Foundations of Program Design, 7/E Addison-Wesley. Boston. ISBN-13: 9780132149181.		
<b>Replacement Literature:</b>	Deitel, Paul and Deitel, Harvey (2011) Java How to Program, 9/e. Prentice Hall. Boston. ISBN-13: 9780132575669.  It is also possible to use some tutorials and help materials available on the Internet		
<b>Participation and Exam requirements:</b>	<ul style="list-style-type: none"> <li>- At least 90% of homework exercises must be submitted and correct</li> <li>- Every student must defend the submitted homework</li> </ul>		
<b>Independent work:</b>	Practical exercises as homework assignments		
<b>Grading criteria scale or the minimal level necessary for passing the subject:</b>	The assessment test can be passed with at least 60% correct answers. Students may use all kind of materials but internet access will be disabled.		

***Information about the course:***

Sep 5 2013 12.30PM - 3.30PM	Course introduction; programming languages; first Java program; strings; Java IDEs; Netbeans working environment. Declaration and usage of variables; primitive data types;
Sep 6 2013 12.30PM – 3.30PM	Creating expressions; type conversions; the scanner class; objects; classes; usage of classes and libraries; the math class; constructors;
Sep 19 2013 12.30PM – 3.30PM	Variable visibility; exercises with classes; static variable and methods; Output formatting; boolean expressions; conditions "if" and "else".
Sep 20 2013 12.30PM – 3.30PM	Comparison by data type; switch-case instruction; enumerated types; wrapper classes; autoboxing and unboxing; "while" loop; programming exercises; "do ... while" loop;
Sep 21, 2013 2PM – 5PM	"for" loop; simple and multi-dimensional arrays; reading/writing text files;