

Implementation plan Finished

Study unit	Object-Oriented Programming with Java (R0317), 5.0
Implementation	CCA1721: 2/2017-2018 (15.01.2018 - 09.05.2018)
Type	SOFTWARE PROGRAMMING (R059)
Groups	Primary: CCA17SY Others :
Involved in the project	
Lecturers	
Number of participants	Minimum: Maximum:
Enrolment period	27.11.2017 08:00 - 08.12.2017
Main timing for implementation	On working days during daytime
Applicability	For exchange students: Yes For elective studies: No Open UAS student: No Suitable for virtual UAS: Yes
Teachers	De Arruda Camara Antonius (Teacher in charge), Lohiniva Meija (Other teacher)
Campus	Laurea Leppävaara
Main location for implementation	At the campus
Implementation method	Optima realization/student group, Web/virtual Language: English Virtuality: 1 cr Integration of R&D: 0 cr
Implementation class	LbD supporting knowledge and skills development
Focus areas	No connection to focus areas
Evaluation at the latest	15.07.2018 Storing of graded material ends.: 15.06.2019
Exam days	
Having completed the study unit the student is able to	The student is able to • apply the principles of Object-Orientation programming • design Object-Oriented applications using standard modeling methods • use functionality from off-the-shelf libraries when developing an own application
Previous studies	
Previous studies, more information	First year Tiko/BIT ICT courses: Fundamentals of programming (any language), Basics of relational databases and SQL
Learning objectives	This course is targeted to students that want to extend the basic programming skills learned during the first year of studies or want to pursue careers in web/mobile application development. In the web/mobile app development job market, knowledge of Object-Oriented programming techniques is a necessary pre-requisite as many commonly used development frameworks are based on Object-Oriented principles (ex: Android SDK, PHP Symfony, PHP Laravel, Java Spring). In this course students will extend their java programming skills with object-oriented programming techniques.
Contents	• Application of Object-Oriented programming principles in the implementation of an own application • Database access with JDBC • Eclipse IDE • GUI implementation with Swing and Eclipse WindowBuilder plugin • Using Github to host the application code and other documentation
Study material	• Material provided by the teacher (Theory slides and Workshop exercises) • Viope online course (Object-Oriented programming with Java) • Beginning Java Programming: The Object-Oriented Approach, Baesens Bart, Wiley, 2015 (Link to Ebook Central: http://ebookcentral.proquest.com/lib/laurea/reader.action?docID=1895071) • Java 2 - Ohjelmoinnin peruskirja, Kosonen Pekka, Docendo, 2008 • Resources available on the internet
Tutoring and communication	• Optima • Lectures and course material are in English. Finnish students (Tiko) can return

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	material in Finnish and can communicate with the teacher in Finnish
Evaluation criteria and methods	1) Completing Viope programming exercises (total of 15 programming exercises): 0-20 points 2) Individual project, meeting given criteria. Self-evaluation and Peer-evaluation: 0-80 points Grade conversion: (Max points: 100) • 0-50 points: Grade 0, Not passing the course • 51-60 points: Grade 1 • 61-70 points: Grade 2 • 71-80 points: Grade 3 • 81-90 points: Grade 4 • 91-100 points: Grade 5
Work strain	• 30 hours: Contact sessions (About 12 contact sessions of 2,5 hours each) • 40 hours: Viope online course • 65 hours: Independent, self-paced work (Studying concepts, completing workshop exercises, working on individual project) • Total: 135 hours of work
Other arrangements	Students should have an own computer to install the development environment and do the development work. Attendance to the first contact session is compulsory. Students that do not attend the first contact session and do not inform the teacher in advance will be removed from the course. Attendance to other contact sessions is not compulsory and it is optional. Contact sessions will be offered to support students learning process (theory, workshops, development environment, individual project). Students should check in ASIO the reserved dates, and in Optima the content of each contact session