

Course title :

Course Basic Information	
Academic Unit:	Faculty of Civil Engineering
Course title:	Object Oriented Modelling
Level:	Bachelor
Course Status:	Elective
Year of Study:	Year1, Semester 2
Number of Classes per Week:	2+1
ECTS Credits:	3
Time /Location:	According to the Timetable
Teacher:	Prof.Asoc.Dr. Perparim Ameti
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Course Description:	Acquiring knowledge and skills necessary to solve problems in Geodesy and Geoinformatics using object oriented modeling and programming.
Course Goals:	<ul style="list-style-type: none"> – Use information technology in solving geodetic and geoinformation tasks. – Recognise problems and tasks in the application of geodetic and geoinformation principles and methods, and select proper procedures for their solution. – Communicate the results obtained by means of geodesy and geoinformation to clients and experts of geodetic and other related professions. – Keep pace with and adopt new technological achievements in the field of surveying, geoinformation systems and services based on the position, and the changes in regulations, norms and standards.
Expected Learning Outcomes:	<ul style="list-style-type: none"> – Distinguish between the object oriented modeling and programming. – Describe the UML. Define the components and process of design using UML. – Design UML diagrams for solving geodetic and geoinformatics problems. – Apply the methodology of object oriented programming.

Student Workload (should be in compliance with student's Learning Outcomes)			
Activity	Hours	Day/ Week	Total
Lectures	2	15	30
Theory/ Lab Work/Exercises	1	15	15
Practical Work			
Study for intermediate test	2	2	4
Consultations with the teacher			
Field Work			
Test, seminar paper	1	5	5
Homework	1	5	5

Self-study (library or home)	1	5	5
Preparation for final exam	2	2	4
Assessment time (test, quiz, final exam)			
Projects, presentations, etc.	1	15	15
Total			83

Teaching Methods:	<ul style="list-style-type: none"> -Lecture -Discussion during lectures -Exercises -Team work
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Assessment Methods:	<p>In evaluation, the percentage of the attendance of each partial evaluation in the final evaluation must be determined. One of the ways of evaluation would be:</p> <p>First Evaluation: 15%</p> <p>Second Evaluation: 15%</p> <p>Homework or other engagement: 10%</p> <p>Attendance 5%</p> <p>Final Exam 55%</p> <p>Total 100%</p>
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Primary Literature:	<p>Miles, R., Hamilton, K., Learning UML 2.0, O'Reilly Media, 2006.</p> <p>Milićev, D., Zarić, M., Piroćanac, N., Objektno orijentisano modelovanje na jeziku UML: Skripta s praktikumom, Mikro knjiga, Beograd, 2001.</p> <p>http://www.omg.org/spec/UML/</p>
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Additional Literature:	http://www.mindview.net/Books/TIJ/
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Designed teaching plan

Week	Title of the Lecture
Week 1:	The objective and the content of the course. The organization of the teaching.
Week 2:	Modeling, UML. The basic elements of UML.
Week 3:	Use cases.
Week 4:	Static diagrams.
Week 5:	The dynamic model of the system.
Week 6:	Dynamic diagrams.
Week 7:	Physical diagrams.
Week 8:	The first test. First valuation
Week 9:	Objects, classes and packages in Java.
Week 10:	Inheritance, abstract classes, polymorphism and interfaces in Java.
Week 11:	Exceptions and their handling in Java.
Week 12:	Important Java classes.
Week 13:	Input-output subsystems in Java.
Week 14:	Graphical programming in Java.
Week 15:	The second test. Second valuation

Academic Policies and Code of Conduct

We start and finish class on time.

Tools used during class must be cleaned and stored away at the end of class.

Mobile/smart phones, and other electronic devices (e.g. iPods) must be turned off (or on vibrate) and hidden from view during class time.

Laptop and tablet computers are allowed for quiet use only; other activities such as checking personal e-mail or browsing the Internet are prohibited.

Note | If a student has more than 3 class assignments evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.