

Course title :

Course Basic Information	
Academic Unit:	Faculty of Civil Engineering
Course title:	Basics of Engineering Geodesy
Level:	Bachelor
Course Status:	Mandatory
Year of Study:	Year 2, Semester 4
Number of Classes per Week:	2+2
ECTS Credits:	6
Time /Location:	According to the Timetable
Teacher:	Prof.Ass.Dr. Ismail Kabashi
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Course Description:	Entering in engineering geodesy, definitions and its role, geodetic works in preparing infrastructure projects. The role of geodesy on the construction of buildings, stake out elements, Methods of stake out process. Horizontal and vertical stake out. Methods: orthogonal, polar and accuracy analysis, GPS-RTK method. Road elements in vertical perspective. Circular curves, clotoida, cubic parabola, lemniscata, etc. Height stake out, volume calculation etc.
Course Goals:	The aim of this topic is to teach students making difference between “survey” and “stake out”. During this course the students will get the basic knowledge about the role and implementation of geodesy in infrastructure objects.
Expected Learning Outcomes:	After the finish of this course the students will be able to: <ul style="list-style-type: none"> - Make the difference between “survey” and “stake out” - Staking out different geodetic elements, - Calculating volumes during the implementation of different buildings or roads etc.

Student Workload (should be in compliance with student’s Learning Outcomes)			
Activity	Hours	Day/ Week	Total
Lectures	2	15	30
Theory/ Lab Work/Exercises	2	15	30
Practical Work			
Study for intermediate test	1	13	13
Consultations with the teacher	1	15	15
Field Work			
Test, seminar paper	4	2	8
Homework	1	13	13
Self-study (library or home)	1	13	13
Preparation for final exam	1	15	15

Assessment time (test, quiz, final exam)			
Projects, presentations, etc.	1	15	15
Total			152

Teaching Methods:	Lectures, Discussions Exercises Team Work
Assessment Methods:	Participation on the lectures and exercises: 5% Seminars: 15% First valuation: 10% Second Valuation:10% Final Exam: 60% Total: 100%

Primary Literature:	Kabashi, I.: Gjeodezia Inxhinierike I. Dispencë, Fakulteti i Nëntimtarisë dhe Arkitekturës-Universiteti i Prishtinës, Prishtinë, 2008 Kolonja, Y., Hamzai E.: Gjeodezia Inxhinierike Libri 1, 2 dhe 3, UPT-FIN, Tiranë
Additional Literature:	1. Uren, J., Price, W. F.: Surveying for Engineers. MacMillan Press Ltd, London, 1992 2. Kahmen, H. : Vermessungskunde 20. Auflage, de Gruyter Lehrbuch, Berlin New York, 2006 3. Müller, G: Handbuch Ingenieurgeodäsie 2., völlig neu bearb. und erw. Aufl., VEB Verlag für Bauwesen, Berlin, 2002 4. Hennecke, F., Müller, G., Werner, H.: Handbuch

Designed teaching plan	
Week	Title of the Lecture
Week 1:	Geodetic works during the infrastructure objects projecting
Week 2:	Staking out elements
Week 3:	Basic elements for horizontal and vertical stake out
Week 4:	Methods for point stake out: orthogonal and polar stake out. Accuracy analysis
Week 5:	Other stake out methods e.g. GPS-RTK
Week 6:	Stake out of lines and different methods when the points are not obvious.
Week 7:	Circular curves. Its elements
Week 8:	Curves containing two or three parts.
Week 9:	1st valuation -
Week 10:	Clotoides. Its role and its elements.
Week 11:	Stake out of elements of the clotoïdes
Week 12:	Clotoïdes as S-curves
Week 13:	Road elements
Week 14:	Stake out of heights
Week 15:	Second Valuation

Academic Policies and Code of Conduct

- *Regular attendance of the lectures and excersises*
- *Mobile phones are not allowed*

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 %.