

Course title : Methods of adjustments

Course Basic Information			
Academic Unit:	Faculty of Civil Engineering		
Course title:	Adjustment methods		
Level:	Bachelor		
Course Status:	Mandatory		
Year of Study:	Year 2, Semester 3		
Number of Classes per Week:	2+2		
ECTS Credits:	6		
Time /Location:	According to the Timetable		
Teacher:	Prof. Dr. Murat Meha		
Contact Details:	murat.meha@uni-pr.edu 044 120 958		
Course Description:	Theory of errors is well known from Gauss and other authors. Theory of adjustment will make the balance between practical works from geodetic measurements and their mathematical treatments through mathematical model. For sure the classical adjustment methods has to be integrated at new technological developments in surveying fields.		
Course Goals:	This course focuses on the methodologies and methods of adjustments geodetic measurements for the basic knowledge. Particular emphasis will be placed on the use of new techniques of a model design of adjustment system.		
Expected Learning Outcomes:	<ul style="list-style-type: none"> • Student has to describe methods of adjustments of a geodetic measurements • Student has to understood and interpret basic theory of probability, • Student need to classify measurements before starting the adjustments; • Student need to understood the form of double measurements adjustments, • Student need to describe the way of direct measurement adjustments, • Student need to define and clarify the function of waits as well as to the adjustments. 		
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:	<ul style="list-style-type: none"> - Lecture, numerical exercise and laboratory exercise - Workshops - And Work in groups.
Assessment Methods:	Participation in lectures and exercises: 5% Homework or other commitments 10% First colloquium: 30% Second Colloquium: 25% Final exam: 30% Total: 100%
Primary Literature:	1) Nela, K. 2009. Teoria e Gabimeve, UP, Prishtinë.
Additional Literature:	1) Meha, M. 2011. Barazimi i matjeve gjeodezike. Dorshkrim nga ligjeratat. UP. Prishtinë 2) Huaan, F. 2010. Theory of Errors and Least Squares Adjustment 100 44 Stockholm, Sweden, August 2010

Designed teaching plan	
Week	Title of the Lecture
Week 1:	Types of measurements in geodesy
Week 2:	Processing of measurements and outcome measurement
Week 3:	The concept of the theory of errors, probability, reliability of measurements
Week 4:	Classification of errors in geodetic measurements major errors, systematic and random,
Week 5:	Units accuracy in measurement geodetic
Week 6:	Direct measurements. Equalization of double measurements
Week 7:	Equalization of indirect measurements
Week 8:	First evaluation The qualifying first colloquium
Week 9:	Equalization of conditional measurements
Week 10:	The function of the measured values.
Week 11:	Law variance and weight of co-factor in geodetic measurements
Week 12:	Processing of geodetic measurements
Week 13:	Methods of equalization in geodetic measurements

Week 14:	Second evaluation The qualifying second colloquium
Week 15:	Normal distribution curve (curve Gauss).

Academic Policies and Code of Conduct

The teacher sets the criteria for regular attendance at lectures and exercises and rules of etiquette as: quieting in the lesson, disconnection of mobile phone, entrance in lesson in time, mutual respect, and application of the principle one speaks everyone listens etc.

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 %.