

FACULTY OF ENGINEERING
2nd Year 2nd Semester

IM 254-SURVEYING					FACULTY OF ENGINEERING					
Semester	Methods of Education						Credits			
	Lecture	Recit.	Lab.	Project/ Field Study	Homework	Other	Total	Credit	ECTS Credit	
2	28	14	-	14	-	70	126	3	5.0	
Language	Turkish									
Compulsory / Elective	Compulsory									
Prerequisites	None									
Course Contents	Introduction, the shape of the earth and model surfaces for earth, units of measurements. Errors and error types, accuracy criteria, error propagation. Weight concept. Maps and applications. Horizontal control surveys: Distance and horizontal angle measurements. Point positioning: Basic problems, triangulation, trilateration, traversing. Vertical control surveys: Differential leveling and trigonometric leveling. Area, volume and slope computation. Modern observation technique: GPS surveys.									
Course Objectives	Introduction of surveying techniques, provision of hands-on experience with surveying equipment, teaching standard computation methods of surveying and record keeping, and emphasizing problem situations and solutions.									
Learning Outcomes and Competences	Acquisition of basic theoretical and practical skills to conduct surveying for civil engineering applications.									
Textbook and /or Reference	Celal Songu, Ölçme Bilgisi, 2.baskı, cilt 1 Çapa matbaası, Ankara 1975. Erdoğan Özbenli, Türkey Tüdeş, Ölçme Bilgisi- Pratik jeodezi, 3.baskı, K.T.Ü. matbaası, 1989									
Assessment Criteria							If any, mark as (x)	Percentage (%)		
	Midterm Exams						X	40		
	Quizzes						X	5		
	Homeworks						X	5		
	Projects						-	-		
	Term Paper						X	10		
	Laboratory Work						-	-		
	Other						-	-		
Final Exam						X	50			
Instructors	Assoc. Prof. Dr. M. Kürşat ÇUBUK									
Week	Subject									
1	Introduction, the shape of the earth and model surfaces for earth, units of measurements.									
2	Introduction, the shape of the earth and model surfaces for earth, units of measurements.									
3	Errors and error types, accuracy criteria, error propagation , weight and weight concept..									
4	Errors and error types, accuracy criteria, error propagation , weight and weight concept.									
5	Midterm exam -1									
6	Maps and applications									
7	Maps and applications									
8	Horizontal control surveys: Distance and horizontal angle measurements.									
9	Point positioning : Basic problems, triangulation, trilateration, traversing									
10	Vertical control surveys									
11	Midterm exam -2									
12	Differential levelling and trigonometric levelling									
13	Area, volume and slope computation									
14	Modern observation Technique: GPS surveys									