

## LAND SURVEYING III

1	Course Title:	LAND SURVEYING III
2	Course Code:	HRTZ209
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr. Gör. MURAT GÜLER
15	Course Lecturers:	Meslek Yüksek Okulları Yönetim Kurullarının görevlendirdiği öğretim elemanları
16	Contact information of the Course Coordinator:	Öğr. Gör Hakan KÖSE Gemlik Asım Kocabıyık MYO (0224) 2942677-62233 e-posta:hakankose@uludag.edu.tr
17	Website:	
18	Objective of the Course:	To perform leveling operations and calculations in cartography, to make length-cross-section drawings, to calculate cubage.
19	Contribution of the Course to Professional Development:	Teaches the application and basic calculations of land measurement techniques required in the profession of cartography.
20	Learning Outcomes:	
	1	Learning height system and concepts
	2	Ability to establish, classify and number network points
	3	Presentation and control of levels
	4	To be able to measure and calculate the geometric leveling
	5	Measuring and calculating surface leveling
	6	Cross section leveling operations
	7	To be able to calculate trigonometric leveling in short and long distances
	8	Simple calculation of geoid corrugation
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21	Course Content:	
	<b>Course Content:</b>	
Week	Theoretical	Practice
1	Height concepts and elevation systems Country leveling networks	
2	Definition and classification of leveling, establishment of leveling points	
3	General structure, classification and controls of levels	Level centering

4	Based on geometric leveling measurement and calculation	
5	Closed and open geometric leveling measurement and calculation	Field working
6	Surface leveling and volume calculations	Field working
7	Length-section leveling and long-section drawing	Field working
8	Repeating courses and midterm exam	
9	Cross-section leveling and cross-section drawing	Field working
10	Volume calculation with sections and Brückner Diagram	
11	Trigonometric leveling measurement and calculation	
12	Trigonometric leveling calculations in short distance	Field working
13	Long distance trigonometric leveling calculations	Field working
14	Determination of ellipsoidal height and geoid corrugation	Field working

22	Textbooks, References and/or Other Materials:	Songu C., 2003, Ölçme Bilgisi-I, Birsen Yayınevi, İstanbul Songu C., 2000, Ölçme Bilgisi-II, Birsen Yayınevi, İstanbul Koç İ., 1998, Ölçme Bilgisi-I, Gökhan Matbaası, İstanbul
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Activities		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	4.00	56.00
Practicals/Labs		14	2.00	28.00
Self study and preparation		12	2.00	24.00
Homeworks		1	20.00	20.00
Midterm Exam	1	25.00	0.00	0.00
Field Studies		0	0.00	0.00
Home work-project	1	15.00	10.00	10.00
Others		0	0.00	0.00
Total Exams	3	100.00	15.00	15.00
Total Work Load				163.00
Total work load/ 30 hr				5.10
ECTS Credit of the Course				5.00
Total		100.00		
Measurement and Evaluation Techniques Used in the Course		Quantification and consideration are carried out according to the principles of Bursa Uludağ University Associate and Undergraduate Education and Training Regulation.		

24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
ÖK2	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0

ÖK3	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
ÖK4	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
ÖK5	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
ÖK6	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
ÖK7	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
ÖK8	5	4	1	1	1	1	1	1	1	1	1	1	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			