

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
GE102	FUNDAMENTALS OF SURVEYING	3.00	1.00	0.00	4.00	6.00
Course Detail						
Course Language	: English					
Qualification Degree	: Bachelor					
Course Type	: Compulsory					
Preconditions	: Not					
Objectives of the Course	: Study of geodetic survey methods, surveying instruments, calculation methods and surveying applications.					
Course Contents	: Principles of surveying, angle and distance measurements, traverse surveys and computations, the importance of basic sciences for surveying, measurements and errors, surveying instruments and miscellaneous calculation methods.					
Recommended or Required Reading	: 1. C.D., Ghilani and P.R., Wolf, 2008. Elementary Surveying; An Introduction to Geomatics. Pearson, Prentice Hall.					
Planned Learning Activities and Teaching Methods	: Courses, discussions, exams.					
Recommended Optional Programme Components	: -					
Instructors	: Prof. Dr. Mevlüt Yetkin					
Instructor's Assistants	: Lecturer Omer BILGINER					
Presentation Of Course	: Face to Face, Field Study					
En Son Güncelleme Tarihi:	:					

Course Outcomes

Upon the completion of this course a student :

- 1 Learning the principle concepts of surveying instruments. Learning the principle concepts of errors in observations Learning the principle concepts of field and office works.
- 2 Having ability to perform angle, direction, azimuth and distance measurements/computations. Having ability to perform traverse surveys and computations.
- 3 Learning units of measurement. Learning the principle concepts of errors in observations
- 4 Understanding the importance of math, geometry and trigonometry for surveying
- 5 Understanding the importance of coordinate geometry. Learning the concepts of polar and rectangular coordinates.

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*Introduction					
2.Week	*Methods of measurement in Geodesy, basic coordinate systems and units					
3.Week	*Theory of errors in observations and error propagation					
4.Week	*Basic statistics for surveying					
5.Week	*Total stations					
6.Week	*Angles and directions					
7.Week	*Distance measurements					
8.Week	*Surveying using total stations					
9.Week	*Traverse surveys and computations I					
10.Week	*Traverse surveys and computations II					
11.Week	*Deflection of the vertical, magnetic declination, and convergence angle					
12.Week	*Surveying calculations					
13.Week	*Rectangular and polar coordinates					
14.Week	*Coordinate geometry					

Assesment Methods %

1 Mterms : 40.000

2 Assignment : 10.000

3 Final : 50.000

