

| Course Code | Course Name | Teorical | Practice | Laboratory | Credits | ECTS |
|---|--|----------|----------|------------|---------|------|
| GE309 | ENGINEERING SURVEYING | 3.00 | 0.00 | 0.00 | 3.00 | 5.00 |
| Course Detail | | | | | | |
| Course Language | : English | | | | | |
| Qualification Degree | : Bachelor | | | | | |
| Course Type | : Compulsory | | | | | |
| Preconditions | : Not | | | | | |
| Objectives of the Course | : Study of the use of surveying technologies and methods in construction, highway project, deformation monitoring and hydrography works | | | | | |
| Course Contents | : Highway curves. Eartwork volüme computation. Aplication. Specific surveying instruments for engineering surveying. Deformation monitoring with geodetic methods. Tunneling. Hydrography. | | | | | |
| Recommended or Required Reading | : 1. Engineering Surveying. W. Schofield. Butterworth. 2001. 2. Surveying. J.C. McCormac. Wiley. 2012. 2. Elementary Surveying. C.D. Ghilani, P.R. Wolf. Prentice Hall. 2011. | | | | | |
| Planned Learning Activities and Teaching Methods | : Lecture. Discussion. Exam. | | | | | |
| 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 Ability to make computations and design of horizontal and vertical curves in highway projects.
- 2 Ability to make earthwork volume computations in highway and construction works.
- 3 Learning superelevation computations.
- 4 Learning fundamental knowledges about engineering surveying.
- 5 To have knowledge about the applications of GNSS techniques in engineering surveying.

Preconditions

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Weekly Contents

| | Teorical | Practice | Laboratory | Preparation Info | Teaching Methods | Course Learning Outcomes |
|---------|---|----------|------------|------------------|------------------|--------------------------|
| 1.Week | *Introduction | | | | | |
| 2.Week | *Horizontal Curves I | | | | | |
| 3.Week | *Horizontal Curves II | | | | | |
| 4.Week | *Vertical Curves I | | | | | |
| 5.Week | *Vertical Curves II | | | | | |
| 6.Week | *Volume Computations I | | | | | |
| 7.Week | *Volume Computations II | | | | | |
| 8.Week | *Surveying instruments that are used in engineering surveying | | | | | |
| 9.Week | *Deformation measurements and analysis I | | | | | |
| 10.Week | *Deformation measurements and analysis II. | | | | | |
| 11.Week | *Construction Surveying I | | | | | |
| 12.Week | *Construction Surveying II | | | | | |
| 13.Week | *Construction Surveying III | | | | | |
| 14.Week | *Hydrographic Surveying | | | | | |

Assesment Methods %

1 Mterms : 40.000

2 Final : 60.000

ECTS Workload

| Activities | Count | Time(Hour) | Sum of Workload |
|-----------------|-------|------------|-----------------|
| Vize / Midterms | 1 | 2.00 | 2.00 |

| Activities | Count | Time(Hour) | Sum of Workload |
|---|-------|------------|-----------------------------------|
| Final / Final | 1 | 2.00 | 2.00 |
| Derse Katılım / Attending lectures | 15 | 3.00 | 45.00 |
| Ders Öncesi Biresysel Çalışma / Individual study before lecture | 15 | 2.00 | 30.00 |
| Ders Sonrası Biresysel Çalışma / Individual study after lecture | 15 | 3.00 | 45.00 |
| Ara Sınav Hazırlık / Preparation for midterm | 1 | 15.00 | 15.00 |
| Final Sınavı Hazırlık / Preparation for final | 1 | 15.00 | 15.00 |
| Bütünleme / Make-up | 1 | 2.00 | 2.00 |
| | | | Total : 156.00 |
| | | | Sum of Workload / 30 (Hour) : 5 |
| | | | ECTS : 5.00 |

| Program And OutcomeRelation | | | | | | | | | | | |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| | P.O. 1 | P.O. 2 | P.O. 3 | P.O. 4 | P.O. 5 | P.O. 6 | P.O. 7 | P.O. 8 | P.O. 9 | P.O. 10 | P.O. 11 |
| L.O. 1 | 4 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| L.O. 2 | 5 | 5 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| L.O. 3 | 5 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| L.O. 4 | 5 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| L.O. 5 | 4 | 5 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |