

**Content**

| Course Code | Course Name            | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|------------------------|----------|--------|----------|-----|--------|------|
| GÜV313      | Electrical-Electronics | 2        | 3      | 0        | 0   | 3      | 3    |

|                        |  |
|------------------------|--|
| Prerequisites          |  |
| Admission Requirements |  |

|                         |   |
|-------------------------|---|
| Language of Instruction | Turkish   |
| Course Type             | Compulsory  |
| Course Level            | Associate Degree  |
| Objective               | The basic concepts of electricity, to teach the types of electric current.<br>Electric circuit analysis can.<br>Understand the structure and operation of electrical machines.<br>Know magnetism.<br>Take precautions against electrical accidents.   |
| Content                 | Magnetism and electricity,<br>Electrical safety,<br>Electrical laws,<br>Electrical circuit, an electrical circuit work, power,<br>Energy electromagnetic induction,<br>Capacitors,<br>Electric generators and motors,<br>Alternating voltage and current,<br>Distribution and protective devices<br>Electrochemistry,<br>Devices. |
| References              | Principles of direct current module (MEB)<br>Alternative current fundamentals module (MEB)  |

## Theory Topics

| Week | Weekly Contents                                       |
|------|---|
| 1    | Magnetism and electricity                             |
| 2    | Magnetism and electricity                             |
| 3    | Electrical safety                                     |
| 4    | Electrical safety                                     |
| 5    | Electrical laws                                       |
| 6    | Electrical laws                                       |
| 7    | Electrical circuit, an electrical circuit work, power |
| 8    | Electrical circuit, an electrical circuit work, power |
| 9    | Energy electromagnetic induction                      |
| 10   | Capacitors  |
| 11   | Electric generators and motors                        |
| 12   | Alternating voltage and current                       |
| 13   | Distribution and protective devices                   |
| 14   | Electrochemistry, Devices.                            |