# KARADENİZ TECHNICAL UNIVERSITY
## FACULTY OF ENGINEERING
## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## UNDERGRADUATE COURSE CURICULUM (100% ENGLISH)

### 1st Year — Fall Term - 1st Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| YDI1001 | English - I | 3 | 3,0 | 3 | 0 | 0 | |
| MATH1001 | Mathematics - I | 5 | 4,0 | 4 | 0 | 0 | |
| PHYS1001 | Physics - I | 5 | 3,5 | 3 | 0 | 1 | |
| CHM1001 | Basic Chemistry | 5 | 3,5 | 3 | 0 | 1 | |
| EEE1003 | Introduction to Electrical and Electronics Engineering | 2 | 2,0 | 2 | 0 | 0 | |
| EEE1005 | Fundementals of Electrical Engineering | 6 | 4,0 | 3 | 0 | 2 | |
| EEE1001 | Introduction to Computers | 4 | 3,0 | 3 | 0 | 0 | |
| | **Total** | 30 | 23,0 | 21 | 0 | 4 | |

### 1st Year — Spring Term - 2nd Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| YDI1002 | English - II | 3 | 3,0 | 3 | 0 | 0 | |
| MATH1000 | Mathematics - II | 5 | 4,0 | 4 | 0 | 0 | |
| PHYS1000 | Physics - II | 5 | 3,5 | 3 | 0 | 1 | |
| EEE1000 | Computer Programming | 4 | 3,5 | 3 | 0 | 1 | |
| EEE1002 | Measurements in Electrical Engineering | 4 | 3,0 | 2 | 0 | 2 | EEE1005 |
| EEE1004 | Materials in Electrical Engineering | 4 | 2,0 | 2 | 0 | 0 | |
| EEE1006 | Digital Design | 5 | 3,5 | 3 | 0 | 1 | EEE1001 |
| | **Total** | 30 | 22,5 | 20 | 0 | 5 | |

### 2nd Year — Fall Term - 3rd Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| EEE2017 | English in Engineering | 2 | 2,0 | 2 | 0 | 0 | |
| MATH2001 | Differential Equations | 5 | 4,0 | 4 | 0 | 0 | |
| EEE2011 | Probability and Random Processes | 4 | 3,0 | 3 | 0 | 0 | |
| EEE2019 | Microprocessors | 5 | 3,5 | 3 | 0 | 1 | |
| EEE2021 | Electromagnetic Fields | 3 | 3,0 | 3 | 0 | 0 | |
| EEE2009 | Circuits - I | 3 | 3,0 | 3 | 0 | 0 | EEE1005 |
| TURK2001 | Turkish Language - I | 2 | 2,0 | 2 | 0 | 0 | |
| HIST2001 | History of Revolution and Ataturk's Principles - I | 2 | 2,0 | 2 | 0 | 0 | |
| | Social Elective - S31 | 4 | 2,0 | 2 | 0 | 0 | |
| | **Total** | 30 | 24,5 | 24 | 0 | 1 | |

### 2nd Year — Spring Term - 4th Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| EEE2000 | Engineering Mathematics | 3 | 3,0 | 3 | 0 | 0 | |
| EEE2008 | Electronics - I | 5 | 4,0 | 3 | 0 | 2 | EEE1005 |
| EEE2014 | Power Systems | 3 | 3,0 | 3 | 0 | 0 | |
| EEE2006 | Circuits - II | 5 | 4,0 | 3 | 0 | 2 | EEE2009 |
| EEE2016 | Electromagnetic Waves | 3 | 3,0 | 3 | 0 | 0 | |
| EEE2018 | Numerical Analysis | 3 | 3,0 | 3 | 0 | 0 | |
| TURK2000 | Turkish Language - II | 2 | 2,0 | 2 | 0 | 0 | |
| HIST2000 | Ataturk' s Principles and History of Revolution - II | 2 | 2,0 | 2 | 0 | 0 | |
| | Social Elective - S41 | 4 | 2,0 | 2 | 0 | 0 | |
| | **Total** | 30 | 26,0 | 24 | 0 | 4 | |

### 3rd Year — Fall Term - 5th Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| EEE3003 | System Dynamics and Control | 4 | 3,0 | 3 | 0 | 0 | |
| EEE3013 | Signals and Systems | 4 | 3,0 | 3 | 0 | 0 | |
| EEE3009 | Electronics - II | 5 | 4,0 | 3 | 0 | 2 | EEE2008 |
| EEE3019 | Electrical Machines- I | 5 | 4,0 | 3 | 0 | 2 | |
| EEE3021 | Power Electronic Circuits | 5 | 4,0 | 3 | 0 | 2 | |
| EEE3029 | Entrepreneurship | 3 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T51 | 4 | 3,0 | 3 | 0 | 0 | |
| | **Total** | 30 | 23,0 | 20 | 0 | 6 | |

### 3rd Year — Spring Term - 6th Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| EEE3018 | Power Distribution Systems | 6 | 4,0 | 3 | 0 | 2 | EEE2014 |
| EEE3024 | High Voltage Techniques | 5 | 3,0 | 3 | 0 | 0 | |
| EEE3008 | Digital Signal Processing | 6 | 4,0 | 3 | 0 | 2 | |
| EEE3016 | Communication Techniques | 6 | 4,0 | 3 | 0 | 2 | |
| EEE3034 | Project Management | 2 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T61 | 5 | 4,0 | 3 | 0 | 2 | |
| | **Total** | 30 | 21,0 | 17 | 0 | 8 | |

### 4th Year — Fall Term - 7th Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| EEE4017 | Professional Training - I | 3 | 0,0 | 0 | 0 | 0 | |
| EEE4019 | Engineering Design | 6 | 3,0 | 2 | 2 | 0 | |
| EEE4043 | Occupational Health and Safety - I | 3 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T71 | 5 | 3,0 | 2 | 0 | 2 | |
| | Technical Elective - T71 | 5 | 3,0 | 2 | 0 | 2 | |
| | Technical Elective - T72 | 4 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T72 | 4 | 2,0 | 2 | 0 | 0 | |
| | **Total** | 30 | 15,0 | 12 | 2 | 4 | |

### 4th Year — Spring Term - 8th Semester

| Code | Course Name | ECTS | C | H | A | L | Prerequest |
|------|-------------|------|---|---|---|---|------------|
| EEE4010 | Professional Training - II | 3 | 0,0 | 0 | 0 | 0 | |
| EEE4012 | Graduation Project | 8 | 3,0 | 2 | 2 | 0 | EEE4019 |
| EEE4052 | Occupational Health and Safety - II | 3 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T81 | 4 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T81 | 4 | 2,0 | 2 | 0 | 0 | |
| | Technical Elective - T81 | 4 | 2,0 | 2 | 0 | 0 | |
| | Social Elective - S81 | 4 | 2,0 | 2 | 0 | 0 | |
| | **Total** | 30 | 13,0 | 12 | 2 | 0 | 0 |

| | ECTS | C | H | A | L |
|---|------|---|---|---|---|
| **Overall Total** | 240 | 168,0 | 150,0 | 4,0 | 32,0 |

21 Aralık 2021 Salı günü yapılan Bölüm Akademik Kurulu kararları ekidir.

# KARADENİZ TECHNICAL UNIVERSITY
## FACULTY OF ENGINEERING
## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## UNDERGRADUATE COURSE CURICULUM ELECTIVE COURSES (100% ENGLISH)

| 3rd Semester - SOCIAL ELECTIVE GROUP S31 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 1 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE2013 | Engineering Economics | 4 | 2,0 | 2 | 0 | 0 |
| USEC0007 | Protection of Personal data | 4 | 2,0 | 2 | 0 | 0 |
| EEE2023 | Engineering Software's | 4 | 2,0 | 2 | 0 | 0 |

| 4th Semester - SOCIAL ELECTIVE GROUP S41 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 1 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE2020 | Technological Developments | 4 | 2,0 | 2 | 0 | 0 |
| USEC0003 | Professional Ethics | 4 | 2,0 | 2 | 0 | 0 |
| USEC0012 | Carear Planning | 4 | 2,0 | 2 | 0 | 0 |

| 5th Semester - TECHNICAL ELECTIVE GROUP T51 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 1 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE3015 | Computer Communication | 4 | 3,0 | 3 | 0 | 0 |
| EEE3017 | Network Synthesis | 4 | 3,0 | 3 | 0 | 0 |
| EEE3027 | Embedded Systems | 4 | 3,0 | 3 | 0 | 0 |

| 6th Semester - TECHNICAL ELECTIVE GROUP T61 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 1 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE3010 | Automatic Control Systems | 5 | 4,0 | 3 | 0 | 2 |
| EEE3020 | Microwave Techniques | 5 | 4,0 | 3 | 0 | 2 |

| 7th Semester - TECHNICAL ELECTIVE GROUP T71 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 2 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE4005 | Renewable Energy Systems | 5 | 3 | 2 | 0 | 2 |
| EEE4035 | Power System Protection | 5 | 3 | 2 | 0 | 2 |
| EEE4015 | Process Control | 5 | 3 | 2 | 0 | 2 |
| EEE4003 | Power Electronic Applications | 5 | 3 | 2 | 0 | 2 |
| EEE4023 | Antennas and Propogation | 5 | 3 | 2 | 0 | 2 |
| EEE4007 | Medical Electronics | 5 | 3 | 2 | 0 | 2 |
| EEE4021 | Digital Communication | 5 | 3 | 2 | 0 | 2 |
| EEE4001 | Industrial Electronics | 5 | 3,0 | 2 | 0 | 2 |

| 8th Semester - TECHNICAL ELECTIVE GROUP T81 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 3 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE4008 | Power System Analysis | 4 | 2 | 2 | 0 | 0 |
| EEE4004 | Drive Systems | 4 | 2 | 2 | 0 | 0 |
| EEE4034 | Electrical machines - II | 4 | 2 | 2 | 0 | 0 |
| EEE4014 | Power System Design | 4 | 2 | 2 | 0 | 0 |
| EEE4016 | Electrical Vehicles | 4 | 2 | 2 | 0 | 0 |
| EEE4028 | Electromagnetic Compatibility | 4 | 2 | 2 | 0 | 0 |
| EEE4024 | Fiberoptic Communication | 4 | 2 | 2 | 0 | 0 |
| EEE4026 | Communication Systems | 4 | 2 | 2 | 0 | 0 |
| EEE4020 | Digital Control Systems | 4 | 2 | 2 | 0 | 0 |
| EEE4022 | Intelligent Control Systems | 4 | 2 | 2 | 0 | 0 |
| EEE4030 | Mobile Communications | 4 | 2 | 2 | 0 | 0 |
| EEE4002 | Medical Imaging Techniques | 4 | 2 | 2 | 0 | 0 |
| EEE4036 | Electrochemical Biosensors | 4 | 2 | 2 | 0 | 0 |

| 7th Semester - TECHNICAL ELECTIVE GROUP T72 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 2 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE4025 | Lighting Techniques | 4 | 2 | 2 | 0 | 0 |
| EEE4027 | Special Electric Machines | 4 | 2 | 2 | 0 | 0 |
| EEE4029 | Distributed Generation Systems | 4 | 2 | 2 | 0 | 0 |
| EEE4031 | Communication Electronics | 4 | 2 | 2 | 0 | 0 |
| EEE4033 | Image Processing | 4 | 2 | 2 | 0 | 0 |
| ELK4037 | Microwave Systems | 4 | 2 | 2 | 0 | 0 |
| EEE4039 | Electronic Device Techniques | 4 | 3 | 2 | 0 | 0 |
| EEE4041 | Introduction to Biomedical Optics | 4 | 3 | 2 | 0 | 0 |

| 8th Semester - SOCIAL ELECTIVE GROUP S81 | | | | | |
|---|---|---|---|---|---|
| Öğrenciler bu gruptan 1 ders seçecektir. | | | | | |
| Code | Course Name | ECTS | C | H | A | L |
| EEE4038 | Business law | 4 | 2,0 | 2 | 0 | 0 |
| OPE4032 | Management and organization | 4 | 2,0 | 2 | 0 | 0 |
| EEE4040 | Information Crime Law | 4 | 2,0 | 2 | 0 | 0 |
| EEE4042 | Expertise Law and its Application | 4 | 2,0 | 2 | 0 | 0 |

21 Aralık 2021 Salı günü yapılan Bölüm Akademik Kurulu kararları ekidir.