

## DERS PROGRAMI

| YEAR ONE                                     |    |   |   |    |      |              |         |                                             |    |   |   |    |      |              |
|----------------------------------------------|----|---|---|----|------|--------------|---------|---------------------------------------------|----|---|---|----|------|--------------|
| 1st Term                                     |    |   |   |    |      | 2nd Term     |         |                                             |    |   |   |    |      |              |
| Course Name                                  | T  | P | L | C  | ECTS | Prerequisite | Code    | Course Name                                 | T  | P | L | C  | ECTS | Prerequisite |
| Calculus I*                                  | 3  | 2 | 0 | 4  | 6    |              | COME102 | Introduction to Algorithms and Programming* | 2  | 0 | 2 | 3  | 4    |              |
| Physics I*                                   | 3  | 0 | 2 | 4  | 6    |              | EEE102  | Introduction to Digital Systems             | 3  | 0 | 0 | 3  | 5    |              |
| General Chemistry I*                         | 3  | 0 | 2 | 4  | 6    |              | MATH102 | Calculus II*                                | 3  | 2 | 0 | 4  | 6    |              |
| Orientation to Electrical Engineering        | 2  | 0 | 0 | 2  | 3    |              | MATH104 | Basic Linear Algebra*                       | 2  | 2 | 0 | 3  | 5    |              |
| English I                                    | 2  | 0 | 0 | 2  | 2    |              | PHYS102 | Physics II*                                 | 3  | 0 | 2 | 4  | 6    |              |
| Positive Psychology and Communication Skills | 3  | 0 | 0 | 3  | 5    |              | ENG104  | English II                                  | 2  | 0 | 0 | 2  | 2    |              |
| University Culture I*                        | 0  | 2 | 0 | 1  | 4    |              | RCUL104 | University Culture II*                      | 0  | 2 | 0 | 1  | 4    |              |
|                                              | 16 | 4 | 4 | 20 | 32   |              |         | Total Credits                               | 15 | 6 | 4 | 20 | 32   |              |

| YEAR TWO                                                  |    |   |   |    |      |              |         |                                                            |    |   |   |    |      |              |
|-----------------------------------------------------------|----|---|---|----|------|--------------|---------|------------------------------------------------------------|----|---|---|----|------|--------------|
| 3rd Term                                                  |    |   |   |    |      | 4th Term     |         |                                                            |    |   |   |    |      |              |
| Course Name                                               | T  | P | L | C  | ECTS | Prerequisite | Code    | Course Name                                                | T  | P | L | C  | ECTS | Prerequisite |
| Circuit Theory I*                                         | 3  | 0 | 2 | 4  | 5    |              | EEE202  | Circuit Theory II*                                         | 3  | 0 | 2 | 4  | 5    |              |
| Computer Tools for Electrical Engineering                 | 3  | 0 | 0 | 3  | 4    |              | EEE204  | Electromagnetic Field Theory                               | 3  | 0 | 0 | 3  | 5    | PHYS102      |
| Digital Systems Design*                                   | 3  | 0 | 2 | 4  | 6    | EEE102       | EEE206  | Numerical Methods for Electrical Engineering               | 3  | 0 | 0 | 3  | 5    |              |
| Probability and Random Variables                          | 3  | 0 | 0 | 3  | 4    |              | EEE208  | Signals and Systems*                                       | 2  | 2 | 0 | 3  | 5    | MATH102      |
| Turkish Language I                                        | 2  | 0 | 0 | 2  | 2    |              | TURK104 | Turkish Language II                                        | 2  | 0 | 0 | 2  | 2    |              |
| Differential Equations*                                   | 2  | 2 | 0 | 3  | 5    |              | ATA104  | Principles of Atatürk and History of Turkish Revolution II | 2  | 0 | 0 | 2  | 2    |              |
| Principles of Atatürk and History of Turkish Revolution I | 2  | 0 | 0 | 2  | 2    |              | EEE284  | Summer Practice I**                                        | 0  | 0 | 0 | 0  | 5    |              |
| Entrepreneurship and Project Culture                      | 2  | 0 | 0 | 2  | 3    |              |         |                                                            |    |   |   |    |      |              |
|                                                           | 20 | 2 | 4 | 23 | 31   |              |         | Total Credits                                              | 15 | 2 | 2 | 17 | 29   |              |

| YEAR THREE                       |    |   |   |    |      |              |        |                          |    |   |   |    |      |              |
|----------------------------------|----|---|---|----|------|--------------|--------|--------------------------|----|---|---|----|------|--------------|
| 5th Term                         |    |   |   |    |      | 6th Term     |        |                          |    |   |   |    |      |              |
| Course Name                      | T  | P | L | C  | ECTS | Prerequisite | Code   | Course Name              | T  | P | L | C  | ECTS | Prerequisite |
| Electronics I*                   | 3  | 0 | 2 | 4  | 6    | EEE201       | EEE302 | Electronics II*          | 3  | 0 | 2 | 4  | 6    | EEE201       |
| Communication Engineering*       | 3  | 0 | 2 | 4  | 6    | EEE208       | EEE304 | Control Systems          | 3  | 0 | 0 | 3  | 5    |              |
| Introduction to Microprocessors* | 2  | 0 | 2 | 3  | 5    | EEE102       | EEE3XX | Departmental Elective I  | 3  | 0 | 3 | 3  | 5    |              |
| Electromagnetic Waves            | 3  | 0 | 0 | 3  | 5    |              | EEE3XX | Departmental Elective II | 3  | 0 | 0 | 3  | 5    |              |
| Social Elective I                | 3  | 0 | 0 | 3  | 5    |              | XXXXXX | Social Elective II       | 3  | 0 | 0 | 3  | 5    |              |
|                                  |    |   |   |    |      |              | EEE384 | Summer Practice II**     | 0  | 0 | 0 | 0  | 5    |              |
|                                  | 14 | 0 | 6 | 17 | 27   |              |        | Total Credits            | 15 | 0 | 5 | 16 | 31   |              |

| YEAR FOUR                 |    |   |   |    |      |              |        |                                |    |   |   |    |      |              |
|---------------------------|----|---|---|----|------|--------------|--------|--------------------------------|----|---|---|----|------|--------------|
| 7th Term                  |    |   |   |    |      | 8th Term     |        |                                |    |   |   |    |      |              |
| Course Name               | T  | P | L | C  | ECTS | Prerequisite | Code   | Course Name                    | T  | P | L | C  | ECTS | Prerequisite |
| Graduation Project        | 2  | 0 | 0 | 2  | 8    |              | EEE492 | Graduation Thesis*             | 0  | 4 | 0 | 2  | 8    |              |
| Departmental Elective III | 3  | 0 | 0 | 3  | 5    |              | EEE4XX | Departmental Elective V        | 3  | 0 | 0 | 3  | 5    |              |
| Departmental Elective IV  | 3  | 0 | 0 | 3  | 5    |              | EEE4XX | Departmental Elective VI       | 3  | 0 | 0 | 3  | 5    |              |
| Field Elective I          | 3  | 0 | 0 | 3  | 5    |              | XXXXXX | Field Elective II              | 3  | 0 | 0 | 3  | 5    |              |
| Social Elective III       | 3  | 0 | 0 | 3  | 5    |              | OHS404 | Occupational Health and Safety | 4  | 0 | 0 | 4  | 4    |              |
|                           |    |   |   |    |      |              | XXXXXX | Field Elective III             | 3  | 0 | 0 | 3  | 5    |              |
|                           | 14 | 0 | 0 | 14 | 28   |              |        | Total Credits                  | 16 | 4 | 0 | 18 | 32   |              |

|                                     |     |
|-------------------------------------|-----|
| Total Course Credits for Graduation | 145 |
| Total Course ECTS for Graduation    | 242 |
| Total Elective Courses ECTS         | 60  |
| Elective Course Ratio               | 25% |

\* These courses are under the Applied Course status.

\*\* These courses are under the Internship Course status.

| Elective Course Pool                                    |   |   |   |   |      |                                             |        |             |   |   |   |   |      |              |
|---------------------------------------------------------|---|---|---|---|------|---------------------------------------------|--------|-------------|---|---|---|---|------|--------------|
| Departmental Elective Courses                           |   |   |   |   |      | Social Elective Courses (Foreign Languages) |        |             |   |   |   |   |      |              |
| Course Name                                             | T | P | L | C | ECTS | Prerequisite                                | Code   | Course Name | T | P | L | C | ECTS | Prerequisite |
| Electrical Machinery*                                   | 3 | 0 | 2 | 4 | 5    | EEE202                                      | ARB123 | Arabic I    | 3 | 0 | 0 | 3 | 5    |              |
| Introduction to Data Structures and Algorithms          | 3 | 0 | 0 | 3 | 5    |                                             | ARB124 | Arabic II   | 3 | 0 | 0 | 3 | 5    | ARB123       |
| Introduction to Computational Electromagnetics          | 3 | 0 | 0 | 3 | 5    |                                             | CHN123 | Chinese I   | 3 | 0 | 0 | 3 | 5    |              |
| Electronics Laboratory and Instrumentation              | 3 | 0 | 0 | 3 | 5    |                                             | CHN124 | Chinese II  | 3 | 0 | 0 | 3 | 5    | CHN123       |
| Electromechanical Energy Conversion                     | 2 | 0 | 2 | 3 | 5    | EEE202                                      | ESP123 | Spanish I   | 3 | 0 | 0 | 3 | 5    |              |
| Microcontrollers                                        | 3 | 0 | 0 | 3 | 5    |                                             | ESP124 | Spanish II  | 3 | 0 | 0 | 3 | 5    | ESP123       |
| Industrial Electronics and Automation                   | 3 | 0 | 0 | 3 | 5    |                                             | FRN123 | French I    | 3 | 0 | 0 | 3 | 5    |              |
| Health Effects of Electromagnetic Fields and Protection | 3 | 0 | 0 | 3 | 5    |                                             | FRN124 | French II   | 3 | 0 | 0 | 3 | 5    | FRN123       |
| Introduction to Remote Sensing                          | 3 | 0 | 0 | 3 | 5    |                                             | GER123 | German I    | 3 | 0 | 0 | 3 | 5    |              |
| Introduction to Electromagnetic Compatibility           | 3 | 0 | 0 | 3 | 5    |                                             | GER124 | German II   | 3 | 0 | 0 | 3 | 5    | GER123       |
| Microwave Electronics                                   | 3 | 0 | 0 | 3 | 5    |                                             | JAP123 | Japanese I  | 3 | 0 | 0 | 3 | 5    |              |
| Introduction to Biomedical Signal Processing            | 3 | 0 | 0 | 3 | 5    |                                             | JAP124 | Japanese II | 3 | 0 | 0 | 3 | 5    | JAP123       |
| Wireless Wave Propagation                               | 3 | 0 | 0 | 3 | 5    |                                             | ITA123 | Italian I   | 3 | 0 | 0 | 3 | 5    |              |
| Introduction to Robotics                                | 3 | 0 | 0 | 3 | 5    |                                             | ITA124 | Italian II  | 3 | 0 | 0 | 3 | 5    | ITA123       |
| Modeling and Simulation                                 | 3 | 0 | 0 | 3 | 5    |                                             | RSN123 | Russian I   | 3 | 0 | 0 | 3 | 5    |              |
| Embedded Systems Design                                 | 3 | 0 | 0 | 3 | 5    |                                             | RSN124 | Russian II  | 3 | 0 | 0 | 3 | 5    | RSN123       |
| Introduction to Image Processing                        | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Introduction to Digital Signal Processing               | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Mobile Communication                                    | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Introduction to Digital Communication                   | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Introduction to Analog VLSI Circuits                    | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Integrated Circuit Design                               | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Control Technology and Design                           | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Applications of Radio Wave Propagation                  | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Energy Systems                                          | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| High Voltage Techniques                                 | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Power System Reliability                                | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Advanced Digital Design                                 | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Introduction to Microwave Engineering                   | 3 | 0 | 0 | 3 | 5    | EEE204                                      |        |             |   |   |   |   |      |              |
| Power Systems                                           | 2 | 0 | 2 | 3 | 5    | EEE202                                      |        |             |   |   |   |   |      |              |
| Power Electronics                                       | 2 | 0 | 2 | 3 | 5    | EEE202                                      |        |             |   |   |   |   |      |              |
| Introduction to Satellite Communications                | 3 | 0 | 0 | 3 | 5    |                                             |        |             |   |   |   |   |      |              |
| Distribution Systems                                    | 2 | 0 | 2 | 3 | 5    | EEE202                                      |        |             |   |   |   |   |      |              |

**Field Elective Courses**

For Field Elective courses, any departmental elective course having appropriate credits from other departments of Faculty of Engineering and Natural Sciences can be elected.

**Social Elective Courses**

For Social Elective courses, either foreign language course or course having appropriate credits from other faculties can be elected.