

Focus: Structural Materials and Processing

University Courses Shown in Green
 Required Courses shown in Bold
 Must take track courses in red bold

| FIRST YEAR | | | | | | | | | |
|---------------------|-----|------|--|----------|---------------------|------|--|--|--|
| First Semester | | | | | Second Semester | | | | |
| | SU | ECTS | | | SU | ECTS | | | |
| IF 100 | 3 | 5 | Computational Approaches to Problem Solvi | AL 102 | 3 | 5 | Academic Literacies | | |
| MATH 101 | 3 | 6 | Calculus I | MATH 102 | 3 | 6 | Calculus II | | |
| NS 101 | 4 | 6 | Science of Nature I | NS 102 | 4 | 6 | Science of Nature II | | |
| SPS 101 | 3 | 6 | Humanity and Society I | SPS 102 | 3 | 6 | Humanity and Society II | | |
| TLL 101 | 2 | 3 | Turkish Language and Literature I | TLL 102 | 2 | 3 | Turkish Language and Literature II | | |
| HIST 191 | 2 | 3 | Principles of Atatürk and the History of the T | HIST 192 | 2 | 3 | Principles of Atatürk and the History of the Tur | | |
| CIP 101 | 0 | 1 | Civic Involvement Projects I | | | | | | |
| Total Credit | | | | | Total Credit | | | | |
| 17 | | | | | 17 | | | | |
| 30 | | | | | 29 | | | | |
| SECOND YEAR | | | | | | | | | |
| Third Semester | | | | | Fourth Semester | | | | |
| | SU | ECTS | | | SU | ECTS | | | |
| PROJ 201 | 1 | 1 | Undergraduate Project Course | MATH 202 | 3 | 6 | Differential Equations | | |
| ENS 205 | 3 | 6 | Introduction to Materials Science | MAT 204 | 3 | 6 | Electrical, Optical and Magnetic Proper | | |
| ENS 202 | 3 | 6 | Thermodynamics | NS 218 | 3 | 6 | Fundamentals of Nanoscience | | |
| MATH 201 / 203 | 3 | 6 | Linear Algebra / Introduction to Probability | ENS 209 | 3 | 6 | Introduction to Computer Aided Drafting and S | | |
| ENS 204 | 3 | 6 | Mechanics | MAT 206 | 3 | 6 | Kinetics of Materials | | |
| Elective | 3/4 | 6/7 | | | | | | | |
| Total Credit | | | | | Total Credit | | | | |
| 16/17 | | | | | 15 | | | | |
| 31/32 | | | | | 30 | | | | |
| THIRD YEAR | | | | | | | | | |
| Fifth Semester | | | | | Sixth Semester | | | | |
| | SU | ECTS | | | SU | ECTS | | | |
| MAT 312 | 4 | 7 | Materials Characterization | HUM 20X | 3 | 5 | Major Works | | |
| MAT 314 | 3 | 5 | Mechanical Properties of Materials | MAT 306 | 3 | 5 | Computational Techniques for Materials at the | | |
| MATH 201 / 203 | 3 | 6 | Linear Algebra / Introduction to Probability | MAT 307 | 3 | 6 | Composite Materials | | |
| MAT 309 | 3 | 6 | Transport Phenomena in Materials P | Elective | 3/4 | 6/7 | | | |
| MAT 305 | 3 | 5 | Polymer Engineering I | Elective | 3/4 | 6/7 | | | |
| Total Credit | | | | | Total Credit | | | | |
| 16 | | | | | 15/17 | | | | |
| 29 | | | | | 28/30 | | | | |
| PROJ 395 | 0 | 5 | Internship Project | | | | | | |
| FOURTH YEAR | | | | | | | | | |
| Seventh Semester | | | | | Eight Semester | | | | |
| | SU | ECTS | | | SU | ECTS | | | |
| SPS 303 | 3 | 5 | Law and Ethics | ENS 492 | 3 | 5 | Graduation Project (Implementation) | | |
| ENS 491 | 1 | 2 | Graduation Project (Design) | MAT 406 | 3 | 5 | Nanoengineered Systems Fabrication | | |
| MAT 408 | 3 | 5 | Introduction to Ceramics | Elective | 3 | 5/6 | | | |
| ME 301 | 3 | 6 | Mechanical Systems | Elective | 3/4 | 6/7 | | | |
| Elective | 3 | 5/6 | | Elective | 3/4 | 6/7 | | | |
| Elective | 3/4 | 6/7 | | | | | | | |
| Total Credit | | | | | Total Credit | | | | |
| 16/17 | | | | | 15/17 | | | | |
| 28/31 | | | | | 27/30 | | | | |

- Recommended electives:
- IE 309 Manufacturing Processes
 - IE 402 Integrated Manufacturing Sys.
 - IE 416 Additive Manufacturing
 - MAT 402 Polymer Engineering II
 - ME 302 Mechanical Systems II
 - ME 303 Control System Design
 - ME 415 Comp. Analysis & Simulation

(at least two to complete track)