

FACULTY OF ENGINEERING

Having a deep understanding of our culture, art and civilization and keeping an open mind with critical thinking abilities are the values shared and promoted by our faculty. We train our students with the hope that they will become scientific people with self-confidence, awareness and a sense of responsibility.

Areas of Work After Graduation

COMPUTER ENGINEERING

- Academic Career
- Public Institutions (Municipalities, Ministry of Environment and Urbanization, Directorate of General Foundations etc.)
- Domestic and International Units of Construction Companies
- Building Inspection Companies
- Building and Material Companies
- Engineering Firms
- Occupational Health and Safety Specialist
- Highway, Airport and Railway Projects
- Bridges, Barrages and Ports
- Restoration Projects

CIVIL ENGINEERING

- Academic Career
- 2D/3D Specialist
- Network Analyst, Support Expert, Security Expert, Manager
- Animation Expert
- Maintenance Expert/Manager
- Information Security Expert
- Blog Expert
- Support Technician
- Graphic Designer
- Security Consultant
- Content Manager
- Internet Operations Expert
- Business Analyst
- Configuration Manager
- Institutional Hacker
- Multimedia Programmer
- Costumer Support Representative
- Computer Systems Expert
- Risk/Business Continuity Manager
- System Analyst/Engineer/Designer/Manager
- Test Engineer/Expert/Manager
- Implementation Analyst/Expert
- Production Support Engineer
- Database Manager
- Web Developer/Designer
- Software Quality Expert, Modeling Analyst, Design Expert
- Software Architect/Engineer/Expert

BIOMEDICAL ENGINEERING

- Academic Career
- Public and Private Hospitals
- Electronic and Medical Device Companies
- Clinical Engineering in Private and Public Hospitals
- Calibration Firms
- Research and Development Institutions
- Automation Sector
- Laboratories
- Software Companies
- Patent Firms
- Consultancy

ELECTRIC/ELECTRONIC ENGINEERING

- Aerospace engineer
- Broadcast engineer
- Control and instrumentation engineer
- Electrical engineer
- Electronics engineer
- IT consultant
- Network engineer
- Nuclear engineer
- Systems analyst
- Management consultant
- Multimedia programmer
- Project manager
- Technical author
- Technical sales engineer



Location : Haliç Campus



Website : mf.fsm.edu.tr

Department of Civil Engineering

The Civil Engineering Department aims to contribute to the production of knowledge and technology by educating civil engineers who are researchers, creative, collaborative and professionally competent and are able to combine science, natural sciences, humanities and social sciences within an interdisciplinary approach.

- B.S. in Civil Engineering

Courses Offered / Department of Civil Engineering

First Year - First Semester		
Course Code	Course Name	ECTS
FIZ115	Physics I	7
KIM115	General Chemistry	6
MAT115	Calculus I	7
ING101	English I / Advanced English I	3
ING101E		
TRH115	Atatürk's Principles and History of Reforms I	2
TDE115	Turkish Language I	2
INM101	Introduction to Civil Engineering	2
Total ECTS		29

First Year - Second Semester		
Course Code	Course Name	ECTS
FIZ116	Physics II	7
MAT116	Calculus II	7
TRH116	Atatürk's Principles and History of Reforms II	2
ING102	English II / Advanced English II	3
ING102E		
TDE116	Turkish Language II	2
INM104	Technical Drawing	5
INM122	Engineering Mechanics I (Statics)	5
Total ECTS		31

Second Year - Third Semester		
Course Code	Course Name	ECTS
MAT126	Linear Algebra	5
MAT215	Differential Equations	6
INM203	Computer Programming	4
INM223	Engineering Mechanics II (Dynamic)	5
INM225	Strength of Materials I	5
INM241	Materials Science	5
Total ECTS		30

Second Year - Fourth Semester		
Course Code	Course Name	ECTS
MAT234	Statistics and Probability	4
INM202	Geology for Civil Engineering	4
INM204	Surveying	4
INM226	Strength of Materials II	5
INM232	Engineering Economics	5
INM242	Materials of Construction	5
INMUS1	University Elective Course	3
Total ECTS		30

Third Year - Fifth Semester		
Course Code	Course Name	ECTS
INM300	Summer Internship I	2
INM351	Transportation Engineering	5
INM361	Soil Mechanics	5
INM371	Fluid Mechanics	5
INM381	Structural Analysis I	5
INMBS1	Elective Course (Basic Science)	5
INMUS2	University Elective Course	3
Total ECTS		30

Third Year - Sixth Semester		
Course Code	Course Name	ECTS
INM332	Project Management	5
INM362	Foundation Engineering	5
INM372	Hydraulic Engineering	5
INM382	Structural Analysis II	5
INM384	Reinforced Concrete I	5
INMBS6	Steel Structures	5
Total ECTS		30

Fourth Year - Seventh Semester		
Course Code	Course Name	ECTS
INM400	Summer Internship II	2
INMUS3	Elective Course	3
INMTS1	Elective Course (Design)	7
INMAS1	Elective Course (Technical)	5
INMAS2	Elective Course (Technical)	5
INMAS3	Elective Course (Technical)	5
INMAS4	Elective Course (Technical)	5
Total ECTS		32

Fourth Year - Eighth Semester		
Course Code	Course Name	ECTS
INM498	Civil Engineering Design	8
INMAS5	Elective Course (Technical)	5
INMAS6	Elective Course (Technical)	5
INMAS7	Elective Course (Technical)	5
INMAS8	Elective Course (Technical)	5
Total ECTS		28

ELECTIVE COURSES		
Basic Science		
Course Code	Course Name	ECTS
MAT227	Physics I	5
MAT229	General Chemistry	5
MAT243	Calculus I	5
Technical		
Course Code	Course Name	ECTS
INM433	Construction Planning and Cost Analysis	5
INM434	Construction Machinery	5
INM435	Project Management and Planning	5
INM436	Computer Applications in Project Management	5
INM443	Durability of Concrete Structures	5
INM444	Advanced Concrete Technologies	5
INM445	Selection of Materials	5
INM446	Water Insulation in Buildings	5
INM453	Railway Engineering	5
INM454	Traffic Engineering	5
INM455	Construction of Tunneling	5
INM456	Urban Transportation Systems	5
INM463	Trenchless Technologies	5
INM464	Introduction to Deep Excavation	5
INM465	Underground Structures	5
INM466	Geotechnical Earthquake Engineering	5
INM473	Hydrology	5
INM474	Water Supply and Environmental Sanitation	5
INM475	Computer Applications in Hydraulics	5
INM476	Introduction to Coastal Hydraulics	5
INM481	Advanced Theory of Structures	5
INM482	Introduction to Finite Elements	5
INM483	Introduction to Dynamics of Structures	5
INM484	Reinforced Concrete II	5
INM485	Pre-stressed Concrete	5

ELECTIVE COURSES		
Course Code	Course Name	ECTS
INM486	Advanced Steel Structures	5
INM487	Timber Structures	5
INM488	Computer Applications in Structural Engineering	5
INM489	Earthquake Resistant Design of Structures	5
Design		
Course Code	Course Name	ECTS
INM459	Transportation Design	7
INM469	Design of Retaining Structures	7
INM477	Design of Water Supply and Waste Water Systems	7
INM479	Design of Marine Structures	7
INM491	Design of Steel Structures	7
INM493	Bridge Design	7
INM495	Design of Reinforced Concrete Structures	7
INM497	Design of High Rise Buildings	7

Summer Internships are 60 working days.
Total ECTS Required for Graduation **240**



Department of Computer Engineering

This faculty offers rich educational programs and the emphasis on applied sciences, supports research and development at the utmost level. Our goal is to reach the highest technical educational quality available.

- B.S. in Computer Engineering

Courses Offered / Department of Computer Engineering

First Year - First Semester		
Course Code	Course Name	ECTS
FIZ115	Physics I	7
MAT115	Calculus I	7
BLM103	Computer Programming I	5
TDE115	Turkish Language I	2
TRH115	Atatürk's Principles and History of Reforms I	2
ING101E	Advanced English I	3
BLM101E	Introduction to Computer Engineering	3
Total ECTS		29

First Year - Second Semester		
Course Code	Course Name	ECTS
FIZ116	Physics II	7
MAT116	Calculus II	7
MAT126	Linear Algebra	5
BLM104	Computer Programming II	5
TDE116	Turkish Language II	2
ING102E	Advanced English II	3
TRH116	Ataturk's Principles and History Reforms II	2
Total ECTS		31

Second Year - Third Semester		
Course Code	Course Name	ECTS
MAT215	Differential Equations	6
MAT217E	Discrete Structures	5
BLM201	Design Software	3
BLM203	Digital Systems	4
BLM205	Circuit Analysis	4
BLM204	Computer Programming III	5
	Elective Course (Basic Science)	4
Total ECTS		31

Second Year - Fourth Semester		
Course Code	Course Name	ECTS
MAT234	Statistics and Probability	4
BLM202E	Data Structures	6
BLM206	Microprocessor Systems	6
BLM208	Electronic Circuits	6
BLM210	Oral and Written Communication in Engineering	3
	Advanced English II	4
Total ECTS		29

Third Year - Fifth Semester		
Course Code	Course Name	ECTS
BLM301E	Operating Systems	7
BLM303E	Database Management Systems	6
BLM305E	Advanced Programming Techniques	6
BLM307E	Algorithm Analysis & Design	6
BLM387	Computer Ethics & Law	3
BLM300	Summer Internship I	2
Total ECTS		30

Third Year - Sixth Semester		
Course Code	Course Name	ECTS
BLM302E	Computer Organization & Architecture	6
BLM304E	Computer Networks	6
BLM306E	Software Engineering	5
BLM320E	Formal Languages and Automata Theory	5
	Computer Engineering Elective VI	5
	University Elective Course	3
Total ECTS		30

Fourth Year - Seventh Semester		
Course Code	Course Name	ECTS
BLM401	Graduation Project I	6
BLM400	Summer Internship II	2
	Computer Engineering Elective VII	5
	Computer Engineering Elective VII	5
	Computer Engineering Elective VII	5
	Elective Course (Engineering General)	5
	University Elective Course	3
Total ECTS		31

Fourth Year - Eighth Semester		
Course Code	Course Name	ECTS
BLM402	Graduation Project II	6
	Computer Engineering Elective VIII	5
	Computer Engineering Elective VIII	5
	Computer Engineering Elective VIII	5
	Elective Course (Engineering General)	5
	University Elective Course	3
Total ECTS		29

ELECTIVE COURSES		
Basic Science		
Course Code	Course Name	ECTS
MAT227	Numerical Methods	5
MAT229	Matrix Theory with Matlab	5
KIM113	Chemistry	5
Computer Engineering Elective IV		
Course Code	Course Name	ECTS
BLM250E	Python Programming Language	4
BLM252E	Haskell Programming Language	4
BLM292E	Data Programming	4
Computer Engineering Elective VI		
Course Code	Course Name	ECTS
BLM308E	Human Computer Interaction & Visualization	5
BLM352E	Open Source Operating Systems	5
BLM362E	Optimization Algorithms	5
BLM322E	Signals & Systems	5
Computer Engineering Elective VII-VIII (Software Track)		
Course Code	Course Name	ECTS
BLM411E	Multimedia Software Development	5
BLM413E	Parallel Programming	5
BLM415E	Computer Programming Languages	5
BLM417E	Web Design and Programming	5
BLM419E	Computer Graphics	5
BLM412E	Introduction to Data Mining	5
BLM414E	Game Software Development	5
BLM416E	Web Database Systems	5
BLM418E	Educational Software Development	5
BLM420E	Service Oriented Software Development	5
BLM422E	Software Testing	5
BLM432E	Introduction to Data Science	5
BLM434E	Mobil Programming	5
BLM425E	Software Project Management	5

ELECTIVE COURSES		
Computer Engineering Elective VII-VIII (Computer Systems Track)		
Course Code	Course Name	ECTS
BLM441E	Wireless Communication Systems	5
BLM443E	Embedded Systems	5
BLM445E	System Programming	5
BLM447E	Introduction to Artificial Intelligence	5
BLM449E	Digital Signal Processing	5
BLM440E	System & Network Management	5
BLM442E	Computer System Security	5
BLM455E	Design of Smart Systems	5
BLM446E	Introduction to Robotics	5
BLM448E	Medical Informatics	5
BLM450E	Image Processing	5
Computer Engineering Elective IV		
Course Code	Course Name	ECTS
BLM481	Engineering Economics	5
BLM482	Engineering Management	5
BLM484	Cost Analysis in Engineering	5
BLM483	Job Security and Health in Engineering	5
BLM485	Scientific Research Methods	5

Summer Internships are 60 working days.

Total ECTS Required for Graduation **240**



Department of Biomedical Engineering

This degree program is offered jointly by Fatih Sultan Mehmet Vakif University and Bezmi-âlem Vakif University. The modules of specialty within the program are Medical Systems, Medical Imaging Systems and Medical Informatics. Students can choose any one of these options and study it in depth through individual and team-projects. The courses are compatible within the standards of the European Credit Transfer System.

- B.S. in Biomedical Engineering

Courses Offered / Department of Biomedical Engineering

First Year - First Semester		
Course Code	Course Name	ECTS
FIZ115	Physics I	7
MAT115	Calculus I	7
BLM11E	Introduction to Biomedical Engineering	3
BLM103	Computer Programming I	5
TDE115	Turkish Language I	2
TRH115	Atatürk's Principles and History of Reforms I	2
ING101E	Advanced English I	3
Total ECTS		29

First Year - Second Semester		
Course Code	Course Name	ECTS
FIZ116	Physics II	7
MAT116	Calculus II	7
MAT126	Linear Algebra	5
BLM104	Computer Programming II	5
TDE116	Turkish Language II	2
TRH116	Atatürk's Principles and History of Reforms II	2
ING102E	Advanced English II	3
Total ECTS		31

Second Year - Third Semester		
Course Code	Course Name	ECTS
MAT215	Differential Equations	6
KIM115	General Chemistry	5
BLM201	Design Software	3
BLM203	Digital Systems	4
BLM255	Electric Circuits	4
MED212	Cell and Molecular Biology	4
	Elective Course (Basic Science)	5
Total ECTS		31

Second Year - Fourth Semester		
Course Code	Course Name	ECTS
MAT234	Statistics and Probability	4
BLM206	Microprocessor Systems	6
BLM208	Electronic Circuits	6
MED202	Human Anatomy	5
MED204	Human Physiology	5
BLM210	Oral and Written Communication in Engineering	3
Total ECTS		29

Third Year - Fifth Semester		
Course Code	Course Name	ECTS
BME311	Biomedical Signals and Systems	4
BME353E	Biomedical Measurement and Instrumentation	5
BME315	Biomedical Electronics	5
MED301	Biophysics	4
MED325	Biochemical Measurement Techniques	4
BME300	Summer Practice I	2
	University Elective Course	3
	Biomedical Engineering Elective V-VI	3
Total ECTS		30

Third Year - Sixth Semester		
Course Code	Course Name	ECTS
BME312E	Biomedical Systems Analysis and Design	4
BME314	Biomedical Signal Processing	5
BME352	Biomedical Control Systems	5
BME364	Electromagnetic Fields and Waves	5
BME392E	Biomedical Systems Project Development	3
	Biomedical Engineering Elective V-VI	5
	University Elective Course	3
Total ECTS		30

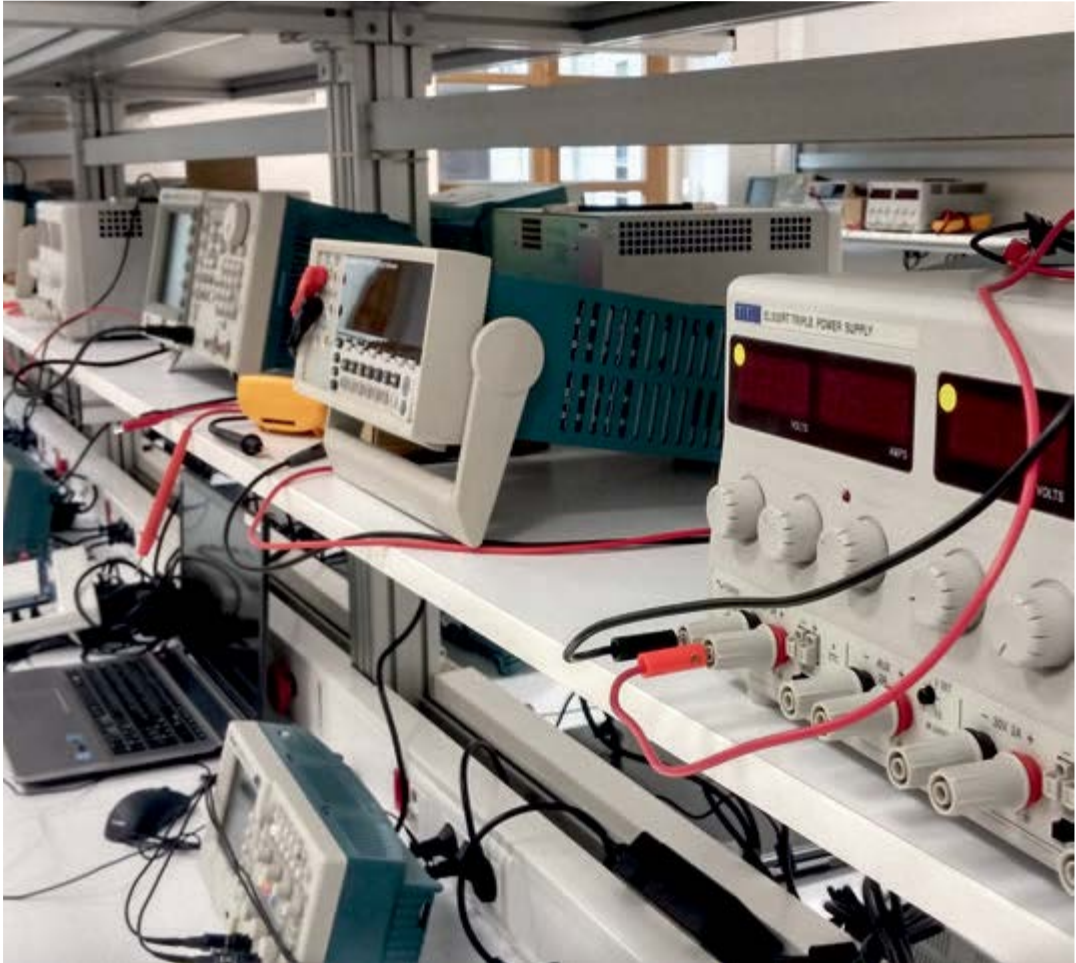
Fourth - Seventh Semester		
Course Code	Course Name	ECTS
BME401	Graduation Project I	6
BME400	Summer Internship II	2
	Biomedical Engineering Elective VII	5
	Biomedical Engineering Elective VII	5
	Biomedical Engineering Elective VII	5
	Elective Course (Engineering General)	5
	University Elective Course	3
Total ECTS		31

Fourth - Eighth Semester		
Course Code	Course Name	ECTS
BME402	Graduation Project II	6
	Biomedical Engineering Elective VIII	5
	Biomedical Engineering Elective VIII	5
	Biomedical Engineering Elective VIII	5
	Elective Course (Engineering General)	5
	University Elective Course	3
Total ECTS		29

ELECTIVE COURSES		
Basic Science		
Course Code	Course Name	ECTS
MAT227	Numerical Methods	5
MAT229	Matrix Theory with MATLAB	5
MAT235	Engineering Mathematics	5
Biomedical Engineering Elective V-VI		
Course Code	Course Name	ECTS
MED351E	Medical Engineering Applications	5
BME313E	Materials and Health	5
MED346	Physics of Radiation	5
BME374E	Biomaterials and Nanotechnologies	5
Biomedical Engineering Elective VII-VIII		
Course Code	Course Name	ECTS
BME403E	Biomedical Systems Project Development	5
BME490E	Clinical Engineering Management	5
MED471E	Biomedical Control Systems	5
BME421E	Electromagnetic Fields and Waves	5
BME422E	Medical Image Processing	5
BME441E	Medical Imaging Systems I	5
BME442E	Medical Imaging Systems II	5
BME451E	Image Processing	5

ELECTIVE COURSES		
Course Code	Course Name	ECTS
BME444E	Intelligent Object and Environment Design	5
BME446E	Introduction to Robotics	5
BME448E	Engineering Mathematics	5
BME447E	Introduction to Artificial Intelligence	5
Elective Course (Engineering General)		
Course Code	Course Name	ECTS
BLM481	Engineering Economics	5
BLM482	Engineering Management	5
BLM484	Cost Analysis in Engineering	5
BLM483	Job Security in Engineering	5
BLM485	Scientific Research Methods	5
MUH403	History of Science and Technology	5

Summer Internships are 60 working days.
Total ECTS Required for Graduation **240**



Department of Electric/Electronic Engineering

The purpose of the Department of Electric and Electronic Engineering is to train electrical and electronic engineers who define and solve the problems, use the technology competently, follow technological developments and contribute to new technological developments, and comply with national and international standards.

- B.S. in Electric/Electronic Engineering

Courses Offered / Department of Electric/Electronic Engineering

First Year - First Semester		
Course Code	Course Name	ECTS
FIZ115	Physics I	7
MAT115	Calculus I	7
EE101E	Introduction to Biomedical Engineering	3
BLM103	Computer Programming I	5
TDE115	Turkish Language I	2
ING101E	Advanced English I	3
TRH115	Atatürk's Principles and History of Reforms I	2
Total ECTS		29

First Year - Second Semester		
Course Code	Course Name	ECTS
FIZ116	Physics II	7
MAT116	Calculus II	7
MAT126	Linear Algebra	5
BLM104	Computer Programming II	5
TDE116	Turkish Language II	2
ING102E	Advanced English II	3
TRH116	Atatürk's Principles and History of Reforms II	2
Total ECTS		31

Second Year - Third Semester		
Course Code	Course Name	ECTS
MAT215	Differential Equations	6
BLM201	Design Software	5
BLM203	Digital Systems	4
EE205	Circuit and Systems Analysis	6
	Elective Course (Basic Science)	5
EE267	Electromagnetic Field Theory	5
Total ECTS		31

Second Year - Fourth Semester		
Course Code	Course Name	ECTS
MAT234	Statistics and Probability	4
BLM206	Microprocessor Systems	6
EE238	Electronics I	6
EE268	Electromagnetic Wave Theory	5
	Elective Course (Basic Science)	5
BLM210	Oral and Written Communication in Engineering	3
Total ECTS		29

Third Year - Fifth Semester		
Course Code	Course Name	ECTS
EE339E	Electronics II	6
EE315	Signals and Systems	5
EE371	Analog Communications	5
EE341	Electromechanical Energy Conversion	4
	Electrical and Electronics Engineering Elective V-VI	5
	University Elective Course	3
EE300	Summer Practice I	2
Total ECTS		30

Third Year - Sixth Semester		
Course Code	Course Name	ECTS
BLM304	Embedded System Design	6
EE316	Digital Signal Processing	6
EE344	Control Systems	5
EE372	Digital Communications	5
	Electrical and Electronics Engineering Elective V-VI	5
	University Elective Course	3
Total ECTS		30

Fourth - Seventh Semester		
Course Code	Course Name	ECTS
EE401	Graduation Project I	6
	Electrical and Electronics Engineering Elective VII-VIII	5
	Electrical and Electronics Engineering Elective VII-VIII	5
	Electrical and Electronics Engineering Elective VII-VIII	5
	Elective Course (Engineering General)	5
	University Elective Course	3
EE400	Summer Practice II	2
Total ECTS		31

Fourth - Eighth Semester		
Course Code	Course Name	ECTS
EE402	Graduation Project II	6
	Electrical and Electronics Engineering Elective VII-VIII	5
	Electrical and Electronics Engineering Elective VII-VIII	5
	Electrical and Electronics Engineering Elective VII-VIII	5
	Elective Course (Engineering General)	5
	University Elective Course	3
Total ECTS		31

ELECTIVE COURSES		
Basic Science		
Course Code	Course Name	ECTS
MAT227	Numerical Methods	5
MAT229	Matrix Theory with MATLAB	5
MAT235	Engineering Mathematics	5
Electric and Electronic Engineering Elective V-VI		
Course Code	Course Name	ECTS
EE311E	Electrical and Electronics Measurement	5
EE313E	Electronic Instrumentation	5
EE342E	Electrical Machines	5
EE344E	Electrical Installations	5
EE334E	IC Design	5
Electric and Electronic Engineering Elective VII-VIII		
Course Code	Course Name	ECTS
EE441	Electrical Energy Generation	5
EE442	Energy Distribution Systems	5
EE443E	Illumination Techniques	5
EE444E	High Voltage Techniques	5
EE431E	Power Electronic Circuits	5
EE433E	Communication Electronics	5
EE462E	Microwave Techniques	5
EE451E	Digital Image Processing	5
EE472E	Mobile Communication Systems	5
EE446E	Introduction to Robotics	5

ELECTIVE COURSES		
Course Code	Course Name	ECTS
BLM481	Engineering Economics	5
BLM482	Engineering Management	5
BLM484	Cost Analysis in Engineering	5
BLM483	Job Security in Engineering	5
MUH403	History of Science and Technology	5
BLM485	Scientific Research Methods	5
Elective Course (Engineering General)		
Course Code	Course Name	ECTS
MIM035E	Global Issues	3
MIM052	Disaster, Environment and Energy	3
TDE137	City and Culture I	3
TDE138	City and Culture II	3
GTS070	Introduction to Art	3
PSI108	Sociology	3
ISL180	Society and Religion	3
FSM110	General Law	3

Summer Internships are 60 working days.
Total ECTS Required for Graduation **240**

