2025-2026 Academic Year
List of Courses Offered in Foreign Language
2025-2026 Akademik Yılı
Yabancı Dilde Açılacak Dersler Listesi

Faculty of Engineering
Mühendislik Fakültesi

	Department *Bölüm*	Course Code *Ders Kodu*	ECTS *AKTS*	Course Title *Dersin Adı*	Semester *Dönem*	Course Content *Dersin İçeriği*	Academic Staff *Dersi Veren Öğretim Elemanı*	Online Available *Çevrimiçi*
1	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM104	6	PHYSICS II	Spring *Bahar*	Electric charge and electric field Gauss' law Electrical potential Capacitance, dielectrics, storage of electrical energy Electric circuits and resistance direct current circuits Magnetism Magnetic field sources Electromagnetic induction and Faraday's law Induction, electromagnetic oscillations and alternating current circuits Maxwell's equations and electromagnetic waves	Dr. Öğr. Üyesi Deniz KAYA	Online Available *Çevrimiçi*
2	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM108	2	Physics Laboratory	Spring *Bahar*	Experiments that test and apply some of the core topics that are learned in Physics I and Physics II.	Prof. Dr. Hüseyin GÖKSU	Online Available *Çevrimiçi*
3	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	MAT164	6	Mathematics II	Spring *Bahar*	Indefinite Integral, Definite Integral, Integral Applications, Multivariable Functions	Prof. Dr. Mehmet CENKCİ	Online Available *Çevrimiçi*
4	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM110	5	Lineer Algebra and Vector Analysis	Spring *Bahar*	Indefinite Integral, Definite Integral, Integral Applications, Multivariable Functions	Arş. Gör Dr. Murat KARAÇAYIR	Online Available *Çevrimiçi*
5	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM220	5	Circuit Theory II	Spring *Bahar*	Basic concepts, Kirchoff current and voltage laws, Dependent sources and OPAMPs, Circuit analysis methods (superposition, node voltages, ambient currents), First-order circuits, Second-order circuits.	Doç. Dr. H. Feza CARLAK	Online Available *Çevrimiçi*
6	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM304	5	Power Electronics	Spring *Bahar*	Semiconductor power diodes. Diode circuits and rectifiers. Thyristors and controlled rectifiers. AC voltage controllers. Thyristor switching techniques. Power transistors and dc choppers. Pulse wide modulation inverters. Resonant pulse converters. Static switches and power supplies. DC and AC drives. Inverter and converter structures. Switch position regulators, single and three phase PWM inverters. Implementation and experimental examination of power electronic circuits.	Prof. Dr. Selim BÖREKCİ	Online Available *Çevrimiçi*
7	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM307	2	Power Electronics Laboratory I	Spring *Bahar*	Power electronics elements, circuits, design and application areas	Prof. Dr. Selim BÖREKCİ	Online Available *Çevrimiçi*
8	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM316	2	Engineering Management	Spring *Bahar*	Definition and scope of management. Development of management ideas. Social and moral responsibilities of management. Functions of management: planning, organizing, leadership and supervision. Managerial decision making. Organizational design. Delegation of authority and managerial control.	Prof. Dr. Selçuk HELHEL	Online Available *Çevrimiçi*
9	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM370	5	Baseband Communication	Spring *Bahar*	orthogonal functions, amplitude modulation, angular modulation, noise in communication systems	Prof. Dr. Selçuk HELHEL	Online Available *Çevrimiçi*

10	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM374	3	Baseband Communication Laboratory I	Spring *Bahar*	These topics include converting analog signals to digital and transmitting digital signals to baseband and passband channels.	Prof. Dr. Selçuk HELHEL	Online Available *Çevrimiçi*
11	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEM394	5	Introduction to optics and photonics	Spring *Bahar*	Introduction to optics and photonics, Nature of light, its production, Geometric optics, Paraxial optical matrix methods, Wave equation, superposition of waves, Light interference, interferometry, coherence, holography, Polarization, matrix methods, Fraunhofer diffraction, The diffraction grating, Fresnel diffraction 10 Multilayer films, Fresnel equations 11 Lasers 12 Laser beam characteristics 13 Optical waveguides 14 Fiber optics	Arş. Gör Dr. Atalay KOCAKUŞAK	Online Available *Çevrimiçi*
12	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEE4002	4	Graduaiton Project II	Spring *Bahar*	In this course, students are expected to research and realize the project they proposed in the first semester. A well-defined engineering problem must be solved using hardware and/or software and the solution must be realized by using the gains gained during Electrical and Electronics Engineering education. The results are reported as a thesis presented orally before a jury of 3 people.	Arş. Gör Dr. Atalay KOCAKUŞAK	Online Available *Çevrimiçi*
13	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEE456	5	Introduction to medical imaging	Spring *Bahar*	Basic parameters in imaging and imaging systems Numerical performance measures, spatial resolution, noise and contrast. Basic principles and applications of modern medical imaging systems. X-ray radiology, ultrasound, nuclear medicine and scintigraphy magnetic resonance imaging, hardware, data acquisition and image creation in medical imaging systems.	Doç. Dr. Çiğdem SARAÇ	Online Available *Çevrimiçi*
14	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEE488	5	Radar Systems	Spring *Bahar*	Properties of radar signals, radar and system parameters, radar cross-section, radar propagation, radar equation, CW radars, moving target radars, tracking radars, SAR radars and their applications.	Prof. Dr. Hüseyin GÖKSU	Online Available *Çevrimiçi*
15	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEE490	2	Investment project analysis	Spring *Bahar*	Project Types, development of investment projects; economic and financial evaluation; risk in fixed investment projects; inflation effects; financing and lending of investments; techniques for evaluating investment projects	Doç. Dr. Yeşim HELHEL	Online Available *Çevrimiçi*
16	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEE486	5	Microwave circuit design	Spring *Bahar*	High frequency transmission lines, Electric and Magnetic Field Calculations, Reflection and Transmission, Characteristic Impedance and Line Calculations, Impedance Matching, S Parameters, high frequency amplifiers, directed couplers and power dividers.	Arş. Gör Dr. Atalay KOCAKUŞAK	Online Available *Çevrimiçi*
17	Electrical and Electronical Engineering *Elektrik Elektonik Mühendisliği*	EEE440	5	Semiconductor Devices and Modelling	Spring *Bahar*	Switching losses and heat sink size calculations, On-off control, Phase-controlled control in single-phase circuits, Phase-controlled control in three-phase circuits, Step-down dc-dc converters, Boost dc-dc converters, Buck and boost dc-dc converters, Single-phase dc-ac converters, Three-phase dc-ac PWM converters, Multi-level dc-ac converters, Space vector control, Applications	Prof. Dr. Hüseyin Özgür KAZANCI	Online Available *Çevrimiçi*