



2022-2023 Academic Year
List of Courses Offered in Foreign Language

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	Computer Engineering *Bilgisayar Mühendisliği*	CSE 204	6	Database Management Systems	Spring	This course will begin with an introduction to historical methods for data storage and manipulation. The discussion will then focus on the development of a relational database model for use in a software system. The methodology for developing a database from conceptual to logical to physical database will be discussed by using tools such as E-R modeling and normalization.	Dr.Öğr.Üyesi JOSEPH WILLIAM LEDET	No
2	Computer Engineering *Bilgisayar Mühendisliği*	CSE 206	6	Computer Organization	Spring	Histor of Computers, cache memory, computer arithmetic, integer representation, FP representation, Instruction sets, addressing modes, processor structure and functions, Assembly Language, and Pipelining.	Doç.Dr. TANER DANIŞMAN	No
3	Computer Engineering *Bilgisayar Mühendisliği*	CSE 208	6	Computer Networks	Spring	Introduction to networks, protocols, packages, IP, NAT, DNS, routing, BGP, virtual circuits, TCP, Web, p2p, video, QoS, security, cryptology, physical layer, data link layer.	Dr.Öğr.Üyesi MUSTAFA BERKAY YILMAZ	No
4	Computer Engineering *Bilgisayar Mühendisliği*	CSE 234	6	Mobile Programming	Spring	This course aims to provide programming skills for mobile environments. Knowledge on Java and Kotlin, which are the most used programming languages for this purpose, will be given as well with project examples.	Dr.Öğr.Üyesi MUSTAFA BERKAY YILMAZ	No
5	Computer Engineering *Bilgisayar Mühendisliği*	CSE 236	6	Web Programming	Spring	Hands on learning of the most commonly used web development technologies for basic web applications including HTML, CSS, Javascript, PhP, CodeIgnator, JDBC, Client-Server Architecture.	Prof.Dr. MELİH GÜNAY	No
6	Computer Engineering *Bilgisayar Mühendisliği*	CSE 332	6	Software Engineering	Spring	This course gives students experience designing, implementing, testing, and debugging large programs. Students will also get advanced Java programming experience; covering topics such as inheritance, multithreading, networking, database programming, and web development.	Prof.Dr. ÜMİT DENİZ ULUŞAR	No

7	Computer Engineering *Bilgisayar Mühendisliği*	CSE 334	6	Programming Languages	Spring	Language evaluation criteria. Describing syntax and semantics. Tools for constructing lexical and syntactical analyzers. Names, bindings, type checking, and scopes. Data types. Expressions and the assignment statement. Statement-level control structures. Subprograms. Abstract data types. Concurrency. Exception handling. Functional programming languages. Logic programming languages.	Dr.Öğr.Üyesi MURAT AK	No
8	Computer Engineering *Bilgisayar Mühendisliği*	CSE 358	6	Introduction to Artificial Intelligence	Spring	Intelligent Agents, Solving Problems by Uninformed and Informed Search Methods, Constraint Satisfaction Problems, Adverserial Search, Markov Decission Process, Reinforcement Learning	Doç.Dr. ALPER BİLGE	No
9	Computer Engineering *Bilgisayar Mühendisliği*	CSE 328	6	Internet of Things	Spring	Internet communication methods and protocols. Data Transmission Mechanisms. Sensors and Mini Computers as Rasperberry PI and Ardinuo.	Dr. Öğr. Üyesi YUSUF SİNAN HANAY	No
10	Computer Engineering *Bilgisayar Mühendisliği*	CSE 348	6	Introduction to Image Processing	Spring	Image acquisition, sampling and quantization. Spatial domain processing. Image enhancement. Texture analysis. Edge detection. Frequency domain processing. Color image processing. Mathematical morphology. Image segmentation and region representations. Statistical and structural scene descriptions. Applications.	Dr.Öğr.Üyesi MUSTAFA BERKAY YILMAZ	No
11	Computer Engineering *Bilgisayar Mühendisliği*	CSE 472	6	Information Systems Security	Spring	Asymmetric and symmetric encryption, stream ciphers, modes of encryption, public key cryptosystems, digital signatures, RSA, El Gamal encryption, elliptic curve cryptosystems, cryptographic hash functions, MACs, key establishment	Dr.Öğr.Üyesi MURAT AK	No
12	Computer Engineering *Bilgisayar Mühendisliği*	CSE 406	6	Scientific Programming	Spring	The course will begin with an overview to programming techniques. Then, data analysis methods will be explained. The Matplotlib, a widely used library will be examined and data visualization methods will be explained. Programming examples and applications will be developed with Matlab and Phyton.	Dr.Öğr.Üyesi HÜSEYİN GÖKHAN AKÇAY	No
13	Computer Engineering *Bilgisayar Mühendisliği*	CSE 452	6	Parallel Computing	Spring	Analysis of parallel algorithms. Real and apparent parallelism. Parallel programming and parallel programming compilers. Message Passing Interface. Scheduling and performance analysis. Parallel computer topologies and applications with the hypercube architecture.	Doç.Dr. TANER DANIŞMAN	No
14	Computer Engineering *Bilgisayar Mühendisliği*	CSE 484	6	Introduction to Bioinformatics	Spring	Processing molecular biology data efficiently. Developing tools to analyze biology data. Interpreting the results accurately and meaningfully.	Dr. Öğr. Üyesi ALPER ÖZCAN	No