



COURSE LIST FOR EXCHANGE STUDENTS (2025/2026)

FACULTY OF COMPUTER AND INFORMATION SCIENCES

DEPARTMENT: COMPUTER ENGINEERING

CODE	COURSE	ECTS	SEMESTER	PROFESSOR	LEVEL OF EDUCATION	COURSE CONTENT
1213532	Operating Systems	5	-	Asst. Prof. Dr. Alper Kılıç	Undergraduate	Focusing on the theoretical foundations of operating systems, which underlie computer applications, the interaction between computer architecture and user applications is explained. It aims to enhance students' theoretical knowledge and practical competencies in high-performance, concurrent software development and the design and management of computing infrastructures.
1213553	Computer Organization	4	-	Assoc.Prof.Dr.Ö.Kaan BAYKAN	Undergraduate	Introduction to computer organization and architecture, Computer Evolution and Performance, Computer Arithmetic, Memory Systems, Input/Output Processor- Structure, functions Processor- Instruction set, addressing methods Pipeline principle, Superscalar Processor, Parallel Processing, Multicore Computers



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DEPARTMENT: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

CODE	COURSE	ECTS	SEMESTER	PROFESSOR	LEVEL OF EDUCATION	COURSE CONTENT
YPZ101	Introduction to Artificial Intelligence and Machine Learning	6	Fall	Prof. Dr. Mesut Gündüz	Undergraduate	The goal of this course is to teach students the fundamental concepts and algorithms of artificial intelligence and machine learning, and to equip them with the skills to apply this knowledge to real-world problems.
YPZ351	Introduction to Image Processing	6	Fall	Dr. Öğr. Üyesi Burak YILMAZ	Undergraduate	Image fundamentals; image detection and retrieval; image enhancement; image filtering; image matching; color space; geometric transformations; object detection and extraction methods; image segmentation and classification methods
YPZ604	Deep Learning	5	Spring	Doç. Dr. Hakan Yılmaz	Undergraduate	The history and theoretical advantages of deep learning, the basic artificial neural network architectures and learning algorithms that can be used for deep learning, the organization of distributed models, optimization techniques for training deep models, convolutional networks, feedback and recursive networks,



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DEPARTMENT: SOFTWARE ENGINEERING

CODE	COURSE	ECTS	SEMESTER	PROFESSOR	LEVEL OF EDUCATION	COURSE CONTENT
YAZ201	Introduction To Software Engineering	2	Spring	Associate Professor Özgür Öksüz	Undergraduate	The aim of this course is to introduce computer software and its types, basic concepts related to software engineering discipline, various software process models, phased software development approach, activities, tools and techniques used, software project, configuration and quality management.
YAZ301	Discrete Structures	6	Fall	Associate Professor Özgür Öksüz	Undergraduate	To learn the details of mathematical facts, to know how to use them, and to show how to achieve mathematical thinking.
YAZ505	Otomata Theory	3	Fall	Associate Professor Özgür Öksüz	Undergraduate	The goal is to explain the computational process of computers using abstract and algorithmic models. Using these abstract models, we explain fundamental computational theories and examine example problems with and without solutions. We also aim to develop the ability to break down large, complex problems into smaller, more manageable ones and to abstract these problems.



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YAZ601	Algorithm Analysis and Complexity	4	Spring	Associate Professor Özgür Öksüz	Undergraduate	This course provides students with familiarity and proficiency in evaluating and designing computer programs for computational efficiency. It introduces students to the fundamentals of theory and many of the classical algorithms and data structures that solve fundamental computational problems. Additionally, this course teaches students how to calculate distances in networks, search for items in large collections, and rank them.
YAZYL1007	Blockchain Technology and Crypto Currencies	5	Fall	Associate Professor Özgür Öksüz	Graduate	This course aims to give students the properties and use areas of blockchain technology and cryptocurrencies.