

FACULTY OF ENGINEERING ELECTIVE COURSE TYPES AND DESCRIPTIONS

ELECTIVE COURSE POOLS

(2023-2024 Academic Year)

Courses offered by the faculties and schools of Özyeğin University which are not required course for the student, are elective courses. Students are liable for taking a certain number of electives as per the graduation requirements of their degree programs. Turkish-medium courses are not considered electives. Courses (not counted) as electives for Engineering students are identified and announced by the Faculty Board of the Faculty of Engineering at the beginning of each academic semester. Unless otherwise is stated, electives announced in the previous academic semester will prevail.

1) Free Elective Courses Pool

ATTENTION! The following courses will NOT BE COUNTED AS free electives. Courses not listed below can be considered Free Electives.

Course Code	Course Name	School
ACCT 201	Financial Accounting	FEAS -Faculty of Business
ACCT 301	Managerial Accounting	FEAS -Faculty of Business
ARCH 208	Structural Analysis	FAD- Faculty of Architecture and Design
AVM 202	Data Analysis in Aviation Management	SAV- School of Aviation Aeronautical Science
COD 206	Information Architecture	FAD- Faculty of Architecture and Design
COD 208	Advanced Programming	FAD- Faculty of Architecture and Design
ECON 101	Microeconomics	FEAS -Faculty of Business
ECON 102	Macroeconomics	FEAS -Faculty of Business
ECON 106	Economics for Lawyers	FEAS -Faculty of Business
ECON 204	Game Theory	FEAS -Faculty of Business
ECON 206	Statistics for Economics II	FEAS -Faculty of Business
ENG 103	English I (Turkish-medium programs)	SCOLA- School of Languages
ENG 104	English II (Turkish-medium programs)	SCOLA- School of Languages
ENG 105	English I (Speaking Skills)	SCOLA- School of Languages
ENG 106	English II (Speaking Skills)	SCOLA- School of Languages
MGMT 311	Project Management	FEAS -Faculty of Business
MGMT 322	Sustainability in Business	FEAS -Faculty of Business
MIS 101	Introduction to Information Systems and Technologies	FEAS -Faculty of Business
MIS 102	Database Management	FEAS -Faculty of Business
MIS 202	Data Mining	FEAS -Faculty of Business
MIS 304	Information Security	FEAS -Faculty of Business
MIS 311	Introduction to Management Information Systems	FEAS -Faculty of Business
MIS 313	Enterprise Data and Knowledge: Organization and Management	FEAS -Faculty of Business
MIS 315	Data Analysis and Decision Modeling	FEAS -Faculty of Business
MIS 411	Programming in Visual Basic	FEAS -Faculty of Business
OPER 202	Operations Management	FEAS -Faculty of Business
OPER 312	Supply Chain Management	FEAS -Faculty of Business
OPER 314	Service Operations Management	FEAS -Faculty of Business
OPER 315	Decision Making & Optimization Models	FEAS -Faculty of Business

OPER 316	Management Science Modeling with Excel	FEAS -Faculty of Business
OPER 412	Enterprise Resource Planning Systems with SAP	FEAS -Faculty of Business
PHYS 103	Physics for Pilot Training	SAV- School of Aviation Aeronautical Science
PHYS 104	Physics for Pilot Training	SAV- School of Aviation Aeronautical Science
PSY 104	Statistics for Psychology II	FAS- Faculty of Social Sciences
PSY 104R	Statistics for Psychology II -Recitation	FAS- Faculty of Social Sciences
HMAN	All Courses	SAS- School of Applied Sciences
GARM	All Courses	SAS- School of Applied Sciences
SAS	All Courses	SAS- School of Applied Sciences
PLT	All Courses	SAV- School of Aviation Aeronautical Science
CS 401-CS 402-EE401- EE402-ME 401-ME 402- IE 401-IE 402-CE 441	Senior Project Courses	FE-Engineering Faculty

2) Social Sciences Electives

The following courses **will be counted** as “Social Sciences Electives”.

Dersin Kodu		Dersin Adı (ING)	Dersin Adı (TR)
HIST	103	World History I	Uygarlık Tarihi I
HIST	104	World History II	Uygarlık Tarihi II
HIST	309	The Ottomans Inside and Out	Enine Boyuna Osmanlılar
HIST	310	History of the Balkans	Balkan Tarihi
HIST	311	Travel, maps and wonders through history	Tarih boyunca seyahat, haritalar ve harikalar
HUM	302	Seriality in Media and Literature	Medya ve Edebiyatta Diziselik
HUM	304	Culture Through Film	Film Yoluyla kültürleri Anlamak
HUM	310	Culture and Society	Kültür ve Toplum
HUM	315	Literature and Gender	Edebiyat ve Toplumsal Cinsiyet
HUM	316	Political Anthropology	Siyasal Antropoloji
HUM	319	Philosophy Goes to the Movies: An Introduction to Philosophy	Filmlerle Felsefe: Felsefeye Giriş
HUM	321	Science, Technology and Society	Bilim, Teknoloji ve Toplum
HUM	353	Literature and Modernism	Edebiyat ve Modernizm
IR	101	Introduction to Political Science	Siyaset Bilimine Giriş
IR	311	International Conflict Analysis	Uluslararası Çatışma Analizi
IR	312	American Politics	Amerikan Politikası
IR	313	Clashing Views: Current Issues in Politics and Society	Tartışmalı Fikirler: Politik ve Toplumsal Konular
IR	318	Let's Explore Europe!	Avrupayı Keşfetmek!
IR	323	Russian Politics	Rusya Siyaseti
IR	326	Politics of Race and Ethnicity	İrk ve Etnisite Siyaset
IR	329	Democracy and Democratization	Demokrasi ve Demokratikleşme

IR	421	Computational Social Science	Programlamalı Sosyal Bilimler
MUSIC	103	Music of the World	Dünya Müzikleri
PHIL	104	Truth, Knowledge and Ethics	Doğruluk, Bilgi ve Etik Karar Verme
PSY	100	General Psychology	Genel Psikoloji
PSY	302	Biopsychology	Biyopsikoloji
PSY	313	Motivation and Self Regulation	Motivasyon ve Öz-Düzenleme
PSY	314	Human Memory	İnsan Belleği
PSY	317	Thinking & Reasoning	Düşünme ve Akıl Yürütme
PSY	324	Sensation and Perception	Duyum ve Algı
PSY	429	Leadership and Motivation at Work	İş Hayatında Liderlik ve Motivasyon
SOC	201	Introduction to Social Sciences	Sosyal Bilimlere Giriş
SOC	302	Sociology and Politics of Religion and Secularism	Din ve Sekülerlik Sosyolojisi ve Siyaseti
SOC	304	Sociology of Work and Employment: An Introduction to Modern Working Life	Çalışma ve İstihdamın Sosyolojisi: Modern Çalışma Hayatına Giriş

3) Engineering Certificate Elective Courses Pool/ Certificate Electives

Engineering **Certificate Electives** cover all courses start with the course codes EE, CS, ME, CE, or IE and course numbers from 390 to 399. Students may take any certificate electives they prefer, regardless of their departments, **so long as the course has available quota**. Certificate courses **are not counted** as area elective courses.

2023-2024 FALL SEMESTER CERTIFICATE ELECTIVE COURSES

Course Code	Title
CE 391	Concrete Materials
CE 397	Lean Construction Management
CS 390	Introduction to High Performance Computing
CS 393	Developing Backend Applications with Spring Framework
CS 394	Android OS and Mobile Applications
EE 392	Industrial Automation
EE 394	Wireless Communications Engineering Technologies
IE 391	Project Management
IE 395	Agile Management
IE 396	Agile Software and product development
ME 396	Computational Fluid Dynamics with Professional Simulation Tools

**2023-2024 FALL SEMESTER
COMPUTER ENGINEERING- IN-PROGRAM ELECTIVE COURSES**

Course Code	Title
CS 423	Computer Vision
CS 435	Multicore Programming
CS 440	Machine Learning in Finance
CS 442	Network Security
CS 450	Distributed Systems and Cloud Computing
CS 452	Data Science with Python
CS 454	Introduction to Machine Learning and Artificial Neural Networks
CS 468	Contemporary Topics in Networking
CS 427	Multimedia Processing – New Course
CS 460	Information Retrieval and Search Engines
CS 466	Introduction to Deep Learning

**2023-2024 FALL SEMESTER
ELECTRICAL-ELECTRONIC ENGINEERING – IN-PROGRAM ELECTIVE COURSES**

Course Code	Title
EE 362	Digital Electronics and FPGA Design
EE 422	Digital Speech Processing
EE 442	Introduction to Digital Communication
EE 484	Antennas
EE 493	Power Electronics
EE 497	Introduction to Automotive Embedded Software – New Course
EE 476	Introduction to Energy Economics and Policy – New Course
EE 423	Introduction to Deep Learning for Signal Processing – New Course
CS 240	Computer Architecture
CS 440	Machine Learning in Finance
CS 454	Introduction to Machine Learning and Artificial Neural Networks
CS 447	Computer Networks
CS 423	Computer Vision
CS 466	Introduction to Deep Learning
CS 468	Contemporary Topics in Networking
CS 201	Data Structures and Algorithms
CS 102	Object-Oriented Programming
CS 105	Introduction to Object-Oriented Programming

CS 320	Software Engineering
IE 203	Engineering Economy
IE 357	Energy Insights
ME 419	Computational Methods For Engineers

**2023-2024 FALL SEMESTER
MECHANICAL ENGINEERING- IN-PROGRAM ELECTIVE COURSES**

Course Code	Title
ME 410	Turbomachinery Design
ME 413	Robotics I
ME 415	Data Acquisition and Digital Control
ME 419	Computational Methods For Engineers
ME 435	Physical Properties of Materials
EE 201	Signals and Systems
EE 203	Digital Systems
CS 423	Computer Vision

**2023-2024 FALL SEMESTER
INDUSTRIAL ENGINEERING –IN-PROGRAM ELECTIVE COURSES**

Course Code	Title
IE 352	Supply Chain Management
IE 357	Energy Insights
IE 358	Fundamentals of Data Science Using Python
IE 362	Risk Management
IE 368	Computer Integrated Manufacturing
IE 372	Production Planning and Scheduling
IE 373	Service Systems Planning
IE 383	Decision Support Systems
IE 389	Productivity Measurement and Management
IE 416	Blockchain and Financial Technologies
CS 466	Introduction to Deep Learning
CS 102	Object-Oriented Programming
CS 201	Data Structures and Algorithms,
CS 202	Database Management

**2023-2024 FALL SEMESTER
CIVIL ENGINEERING- IN-PROGRAM ELECTIVE COURSES**

Course Code	Title
CE 403	Introduction to Earthquake Engineering
CE 411	Reinforced Concrete II
CE 424	Geotechnical Structures
CE 463	Building Information Modeling for Civil Engineers
CE 469	Introduction to Simulation and Machine Learning Applications in Traffic Engineering – New Course