

## FACULTY OF ENGINEERING ELECTIVE COURSE TYPES AND DESCRIPTIONS

### ELECTIVE COURSE POOLS

**(2024-2025 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 Dizisellik
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, IE or AI 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.

#### 2024-2025 SPRING SEMESTER CERTIFICATE ELECTIVE COURSES

Ders Kodu	Ders Adı
AI 390	Prompt Engineering <b>New Course</b>
CE 399	Geotechnical Earthquake Engineering <b>New Course</b>
CS 391	Web Application Development
CS 399	Construction Contract Dynamics- Navigation Complexities and Strategic Perspectives
EE 399	Enterprise IT Infrastructure <b>New Course</b>
IE 391	Project Management
IE 397	Business Process Management
IE 399	Innovation and Technology Management
ME 396	Computational Fluid Dynamics with Professional Simulation tools

**2024-2025 SPRING SEMESTER  
COMPUTER ENGINEERING- IN-PROGRAM ELECTIVE COURSES**

<b>Ders Kodu</b>	<b>Ders Adı</b>
CS 409	Advanced C++ Programming
CS 418	Networked Entertainment
CS 419	Parallel Computing
CS 443	Processor Microarchitecture
CS 445	Deep Reinforcement Learning
CS 446	Security for Network Technologies
CS 449	Introduction to Natural Language Processing
CS 451	Introduction to Artificial Intelligence
CS 452	Data Science with Python
CS 454	Introduction to Machine Learning and Artificial Neural Networks
CS 466	Introduction to Deep Learning
CS 476	Agile Software Development
ME 413	Robotics I
EE 321	Microprocessors
EE 450	Wireless Networks

**2024-2025 SPRING SEMESTER  
ELECTRICAL-ELECTRONIC ENGINEERING – IN-PROGRAM ELECTIVE COURSES**

<b>Ders Kodu</b>	<b>Ders Adı</b>
CS 102	Object-Oriented Programming
CS 105	Introduction to Object-Oriented Programming
CS 201	Data Structures and Algorithms
CS 202	Database Management Systems
CS 240	Computer Architecture
CS 320	Software Engineering
CS 333	Analysis of Algorithms
CS 350	Operating Systems
CS 446	Security for Network Technologies
CS 447	Computer Networks
CS 454	Introduction to Machine Learning and Artificial Neural Networks
CS 466	Introduction to Deep Learning
EE 302	AI-Based Digital Signal Processing
EE 350	Electronics II
EE 367	Introduction to Optics
EE 372	Basics of Electrical Machines
EE 422	Digital Speech Processing

EE 432	Advanced MATLAB for Signal Processing
EE 450	Wireless Networks
EE 452	Introduction to Internet of Things <b>New Course</b>
EE 473	Energy Systems
EE 491	Control Systems
IE 203	Engineering Economy

**2024-2025 SPRING SEMESTER  
MECHANICAL ENGINEERING- IN-PROGRAM ELECTIVE COURSES**

<b>Ders Kodu</b>	<b>Ders Adı</b>
ME 413	Robotics I
ME 425	Advanced Heat Transfer
ME 428	Materials Characterization with X-ray Diffraction
ME 440	Mechanical Vibrations
ME 442	Biomechanics of Human Motion
CE 205	Construction Materials
EE 372	Basics of Electrical Machines
EE 201	Signals and Systems
EE 203	Digital Systems
EE 321	Microprocessors

**2024-2025 SPRING SEMESTER  
INDUSTRIAL ENGINEERING –IN-PROGRAM ELECTIVE COURSES**

<b>Ders Kodu</b>	<b>Ders Adı</b>
IE 352	Supply Chain Management
IE 358	Fundamentals of Data Science Using Python
IE 363	Quantitative Finance
IE 372	Production Planning and Scheduling
IE 383	Decision Support Systems
IE 410	Network Problems and Optimization
IE 416	Blockchain Technologies in Finance
IE 472	Scheduling
IE 490	Introduction to Research in Industrial Engineering- <b>New Course</b>
CS 451	Introduction to Artificial Intelligence
CS 466	Introduction to Deep Learning
CS 102	Object-Oriented Programming
CS 105	Introduction to Object- Oriented Programming
CS 201	Data Structures and Algorithms
CS 202	Database Management Systems

**2024-2025 SPRING SEMESTER  
CIVIL ENGINEERING- IN-PROGRAM ELECTIVE COURSES**

<b>Ders Kodu</b>	<b>Ders Adı</b>
CE 409	Prestressed Concrete
CE 417	Steel Structures 2
CE 427	Earthquake-Resistant Design of Structures
CE 468	Introduction to Machine Learning Applications in Maritime Engineering
CE 420	Geotechnical Earthquake Engineering
CE 489	Green Building Project