

Uskudar University
Faculty of Engineering and Natural Sciences
Department of Industrial Engineering
2023-2024 Academic Year
(100% English)

YEAR ONE															
1st Term							2nd Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
MATH101	Calculus I*	3	2	0	4	6		MATH102	Calculus II*	3	2	0	4	6	
PHYS101	Physics I*	3	0	2	4	6		PHYS102	Physics II*	3	0	2	4	6	
CHEM101	General Chemistry I*	3	0	2	4	6		IE110	Introduction to Industrial Engineering	3	0	0	3	3	
ENG101	English I	3	0	0	3	3		ENG102	English II	3	0	0	3	3	
ATA101	Principles of Atatürk and History of Turkish Revolution I	2	0	0	2	3		ATA102	Principles of Atatürk and History of Turkish Revolution II	2	0	0	2	3	
RPSC109	Positive Psychology and Communication Skills	3	0	0	3	5		COME102	Introduction to Algorithms and Programming*	2	0	2	3	4	
RCUL101	University Culture I*	0	2	0	1	1		MATH104	Basic Linear Algebra*	2	2	0	3	5	
								RCUL102	University Culture II*	0	2	0	1	1	
Total Credits		17	4	4	21	30		Total Credits		18	6	4	23	31	
YEAR TWO															
3rd Term							4th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
MATH207	Probability*	2	2	0	3	4		MATH204	Statistics	3	0	0	3	5	
MATH203	Differential Equations*	2	2	0	3	5		MATH302	Numerical Analysis	3	0	0	3	6	
IE215	Operations Research I*	3	0	2	4	6		RPRE104	Entrepreneurship and Project Culture	2	0	0	2	3	
IE223	Computer Aided Engineering Graphics*	2	0	2	3	4		IE226	Operations Research II*	3	0	2	4	6	
IE217	Manufacturing Systems Analysis	3	0	0	3	4		IE250	Work Systems Analysis and Design	3	0	0	3	5	
TURK101	Turkish Language I	2	0	0	2	3		TURK102	Turkish Language II	2	0	0	2	3	
IE211	Engineering Economics	3	0	0	3	4		IE284	Summer Practice I**	0	0	0	0	5	
Total Credits		17	4	4	21	30		Total Credits		16	0	2	17	33	
YEAR THREE															
5th Term							6th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE305	System Simulation*	2	0	2	3	5		IE304	Facility Planning and Layout Design	3	0	0	3	5	
IE325	Production and Inventory Systems	3	0	0	3	5		IE346	Management Information Systems	2	0	0	2	3	
IE351	Ergonomics	3	0	0	3	5		IEXXX	Departmental Elective II	3	0	0	3	5	
IEXXX	Departmental Elective I	3	0	0	3	5		XXXXXX	Field Elective II	3	0	0	3	5	
XXXXXX	Field Elective I	3	0	0	3	5		XXXXXX	Social Elective II	3	0	0	3	5	
XXXXXX	Social Elective I	3	0	0	3	5		IE384	Summer Practice II**	0	0	0	0	5	
Total Credits		17	0	2	18	30		Total Credits		14	0	0	14	28	
YEAR FOUR															
7th Term							8th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE491	Graduation Project*	2	0	4	4	5		IE492	Graduation Thesis*	2	0	6	5	8	
IE413	Statistical Quality Control	3	0	0	3	5		IE420	Project Management	3	0	0	3	5	
IEXXX	Departmental Elective III	3	0	0	3	5		IE408	Supply Chain Management	3	0	0	3	5	
IEXXX	Departmental Elective IV	3	0	0	3	5		IEXXX	Departmental Elective V	3	0	0	3	5	
XXXXX	Field Elective III	3	0	0	3	5		IEXXX	Departmental Elective VI	3	0	0	3	5	
OHS401	Occupational Health and Safety I	2	0	0	2	2		OHS402	Occupational Health and Safety II	2	0	0	2	2	
XXXXX	Social Elective III	3	0	0	3	5									
Total Credits		19	0	4	21	32		Total Credits		16	0	6	19	30	

2023-2024	Total Course Credits for Graduation	133
	Total Course ECTS for Graduation	214
	Total Elective Courses ECTS	60
	Elective Course Ratio	28%

* These courses are under the Applied Course status.

** These courses are under the Internship Course status.

Elective Course Pool															
Departmental Elective Courses							Social Elective Courses (Foreign Languages)								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE301	Creativity and Innovation	3	0	0	3	5		ARB123	Arabic I	3	0	0	3	5	
IE303	Leadership and Communication Skills	3	0	0	3	5		ARB124	Arabic II	3	0	0	3	5	ARB123
IE312	Human Resources Management	3	0	0	3	5		CHN123	Chinese I	3	0	0	3	5	
IE315	Decision Making in Health Services	3	0	0	3	5		CHN124	Chinese II	3	0	0	3	5	CHN123
IE317	Organizational Behaviour	3	0	0	3	5		ESP123	Spanish I	3	0	0	3	5	
IE319	Computer Integrated Manufacturing	3	0	0	3	5		ESP124	Spanish II	3	0	0	3	5	ESP123
IE323	Cost Analysis	3	0	0	3	5		FRN123	French I	3	0	0	3	5	
IE324	Engineering Management	3	0	0	3	5		FRN124	French II	3	0	0	3	5	FRN123
IE333	Data Science and Analytics	3	0	0	3	5		GER123	German I	3	0	0	3	5	
IE343	Decision Analysis	3	0	0	3	5		GER124	German II	3	0	0	3	5	GER123
IE344	Start-up Projects in Engineering	3	0	0	3	5		RSN123	Russian I	3	0	0	3	5	
IE352	Probabilistic Models in Operations Research	3	0	0	3	5		RSN124	Russian II	3	0	0	3	5	RSN123
IE402	Portfolio and Risk Analytics	3	0	0	3	5									
IE403	System Dynamics	3	0	0	3	5									
IE405	Enterprise Resource Planning	3	0	0	3	5									
IE410	Decision Support Systems	3	0	0	3	5									
IE411	Introduction to Fuzzy Logic	3	0	0	3	5									
IE415	Lean and Agile Production Systems	3	0	0	3	5									
IE416	Design of Experiments	3	0	0	3	5									
IE421	Robotics and Intelligent Systems	3	0	0	3	5									
IE426	Operation Scheduling	3	0	0	3	5									
IE430	Reliability Engineering and Maintenance Management	3	0	0	3	5									
IE431	Optimization	3	0	0	3	5									
IE436	Healthcare Quality Management	3	0	0	3	5									
IE438	Forecasting and Predictive Analysis	3	0	0	3	5									
IE439	Expert Systems and Artificial Intelligence	3	0	0	3	5									
IE443	Special Topics in Industrial Engineering	3	0	0	3	5									

Field Elective Courses

For Field Elective courses, any departmental elective course having appropriate credits from other departments of Faculty of Engineering and Natural Sciences can be elected.

Social Elective Courses

For Social Elective courses, either foreign language course or course having appropriate credits from other faculties can be elected.