Uskudar University
Faculty of Engineering and Natural Sciences
Department of Industrial Engineering
2025-2026 Academic Year
(100% English)

YEAR ONE

1st Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
MATH105	Calculus I*	3	2	0	4	7	
PHYS103	Physics I*	3	0	2	4	7	
CHEM105	General Chemistry I*	3	0	2	4	7	
ENG103	English I	2	0	0	2	2	
ATA103	Principles of Atatürk and History of Turkish Revolution I	2	0	0	2	2	
RPSC109	Positive Psychology and Communication Skills	3	0	0	3	5	
RCUL103	University Culture I***	0	2	0	1	4	
Total Credits		**16**	**4**	**4**	**20**	**34**	

2nd Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
MATH106	Calculus II*	3	2	0	4	7	
PHYS104	Physics II*	3	0	2	4	7	
IE110	Introduction to Industrial Engineering	3	0	0	3	3	
ENG104	English II	2	0	0	2	2	
ATA104	Principles of Atatürk and History of Turkish Revolution II	2	0	0	2	2	
COME102	Introduction to Algorithms and Programming*	2	0	2	3	4	
MATH104	Basic Linear Algebra*	2	2	0	3	5	
RCUL104	University Culture II***	0	2	0	1	4	
Total Credits		**17**	**6**	**4**	**22**	**34**	

YEAR TWO

3rd Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
MATH207	Probability*	2	2	0	3	4	
MATH203	Differential Equations*	2	2	0	3	5	
IE215	Operations Research I*	3	0	2	4	6	
IE223	Computer Aided Engineering Graphics*	2	0	2	3	4	
IE217	Manufacturing Systems Analysis	3	0	0	3	4	
TURK103	Turkish Language I	2	0	0	2	2	
IE211	Engineering Economics	3	0	0	3	4	
Total Credits		**17**	**4**	**4**	**21**	**29**	

4th Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
MATH204	Statistics	3	0	0	3	5	
MATH302	Numerical Analysis	3	0	0	3	6	
RPRE104	Entrepreneurship and Project Culture	2	0	0	2	3	
IE226	Operations Research II*	3	0	2	4	6	
IE250	Work Systems Analysis and Design	3	0	0	3	5	
TURK104	Turkish Language II	2	0	0	2	2	
IE284	Summer Practice I**	0	0	0	0	5	
Total Credits		**16**	**0**	**2**	**17**	**32**	

YEAR THREE

5th Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE305	System Simulation*	2	0	2	3	5	
IE325	Production and Inventory Systems	3	0	0	3	5	
IE351	Ergonomics	3	0	0	3	5	
IEXXX	Project I	3	0	0	3	5	
XXXXXX	Field Elective I	3	0	0	3	5	
XXXXXX	Social Elective I	3	0	0	3	5	
Total Credits		**17**	**0**	**2**	**18**	**30**	

6th Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE304	Facility Planning and Layout Design	3	0	0	3	5	
IE346	Management Information Systems	2	0	0	2	3	
IEXXX	Project II	3	0	0	3	5	
XXXXXX	Field Elective II	3	0	0	3	5	
XXXXXX	Social Elective II	3	0	0	3	5	
IE384	Summer Practice II**	0	0	0	0	5	
Total Credits		**14**	**0**	**0**	**14**	**28**	

YEAR FOUR

7th Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE491	Graduation Project*	2	0	4	4	5	
IE413	Statistical Quality Control	3	0	0	3	5	
IEXXX	Departmental Elective III	3	0	0	3	5	
IEXXX	Departmental Elective IV	3	0	0	3	5	
XXXXX	Field Elective III	3	0	0	3	5	
XXXXX	Social Elective III	3	0	0	3	5	
Total Credits		**17**	**0**	**4**	**19**	**30**	

8th Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
IE492	Graduation Thesis*	2	0	6	5	8	
IE420	Project Management	3	0	0	3	5	
IE408	Supply Chain Management	3	0	0	3	5	
IEXXX	Departmental Elective V	3	0	0	3	5	
IEXXX	Departmental Elective VI	3	0	0	3	5	
OHS404	Occupational Health and Safety	4	0	0	4	4	
Total Credits		**18**	**0**	**6**	**21**	**32**	

2025-2026	**Total Course Credits for Graduation**	**152**
	Total Course ECTS for Graduation	**249**
	Total Elective Courses ECTS	**68**
	Elective Course Ratio	**27%**

* These courses are under the Applied Course status.
** These courses are under the Internship Course status.
*** These courses are in the elective course status.

Elective Course Pool

Departmental Elective Courses

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

Social Elective Courses (Foreign Languages)

Code	Course Name	T	P	L	C	ECTS	Prerequisite
ARB123	Arabic I	3	0	0	3	5	
ARB124	Arabic II	3	0	0	3	5	ARB123
CHN123	Chinese I	3	0	0	3	5	
CHN124	Chinese II	3	0	0	3	5	CHN123
ESP123	Spanish I	3	0	0	3	5	
ESP124	Spanish II	3	0	0	3	5	ESP123
FRN123	French I	3	0	0	3	5	
FRN124	French II	3	0	0	3	5	FRN123
GER123	German I	3	0	0	3	5	
GER124	German II	3	0	0	3	5	GER123
RSN123	Russian I	3	0	0	3	5	
RSN124	Russian II	3	0	0	3	5	RSN123
JAP123	Japanese I	3	0	0	3	5	
JAP124	Japanese II	3	0	0	3	5	JAP123
ITA123	Italian I	3	0	0	3	5	
ITA124	Italian II	3	0	0	3	5	ITA123

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.

Project I and II

Courses in Project I and Project II elective pools will be conducted project based