

## DERS PROGRAMI

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	
<b>Total Credits</b>		<b>17</b>	<b>4</b>	<b>4</b>	<b>21</b>	<b>30</b>		<b>Total Credits</b>		<b>18</b>	<b>6</b>	<b>4</b>	<b>23</b>	<b>31</b>	
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	
<b>Total Credits</b>		<b>17</b>	<b>4</b>	<b>4</b>	<b>21</b>	<b>30</b>		<b>Total Credits</b>		<b>16</b>	<b>0</b>	<b>2</b>	<b>17</b>	<b>33</b>	
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	
<b>Total Credits</b>		<b>17</b>	<b>0</b>	<b>2</b>	<b>18</b>	<b>30</b>		<b>Total Credits</b>		<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>28</b>	
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									
<b>Total Credits</b>		<b>19</b>	<b>0</b>	<b>4</b>	<b>21</b>	<b>32</b>		<b>Total Credits</b>		<b>16</b>	<b>0</b>	<b>6</b>	<b>19</b>	<b>30</b>	

2023-2024	<b>Total Course Credits for Graduation</b>	<b>154</b>
	<b>Total Course ECTS for Graduation</b>	<b>244</b>
	<b>Total Elective Courses ECTS</b>	<b>60</b>
	<b>Elective Course Ratio</b>	<b>25%</b>

\* 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.