

## INDUSTRIAL ENGINEERING UNDERGRADUATE CURRICULUM

### 1st Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
ATA 103	Principles of Atatürk and History of the Rev I	2+0+0	Compulsory	2
CENG 103	Introduction to Information Technologies	1+0+0	Compulsory	1
CHEM 101	Chemistry	3+0+0	Compulsory	4
ENG 113	Engineering English I	2+2+0	Compulsory	4
MAN 131	Fundamentals of Economics I	3+0+0	Compulsory	5
MAT 123	Engineering Mathematics I	4+0+0	Compulsory	6
PHY 101	Physics I	3+2+0	Compulsory	6
TUR 105	Turkish I	2+0+0	Compulsory	2

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### 2nd Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
ATA 104	Principles of Atatürk and History of the Rev II	2+0+0	Compulsory	2
ENG 114	Engineering English II	2+2+0	Compulsory	4
IE 104	Fundamentals of Industrial and Systems Engineering	3+0+0	Compulsory	4
MAN 132	Fundamentals of Economics II	3+0+0	Compulsory	5
MAT 124	Engineering Mathematics II	4+0+0	Compulsory	6
PHY 102	Physics II	3+2+0	Compulsory	6
TUR 106	Turkish II	2+0+0	Compulsory	2
IE 120	Occupational Health and Safety	1+0+0	Compulsory	1

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### 3rd Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
CENG 111	Computer Programming I	3+2+0	Compulsory	6
IE 211	Probability Theory	3+0+0	Compulsory	6
IE 223	Engineering Economics	3+0+0	Compulsory	6
MAT 221	Linear Algebra	3+0+0	Compulsory	6
MEC 231	Materials Science and Manufacturing Techniques	3+0+0	Compulsory	3
ELEC	Cultural Elective Course I	-	Elective	3

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#### 4th Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
IE 200	Summer Practice I	0+0+0	Compulsory	5
IE 212	Statistics	3+0+0	Compulsory	5
IE 232	Operations Research I	3+0+0	Compulsory	5
IE 321	Ergonomics	2+2+0	Compulsory	6
MAN 324	Cost and Management Accounting	3+0+0	Compulsory	5
MAT 224	Differential Equations	3+0+0	Compulsory	6

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#### 5th Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
IE 331	Operations Research II	3+0+0	Compulsory	5
IE 341	Production Planning and Control I	3+0+0	Compulsory	5
IE 351	Systems Analysis and Design	3+0+0	Compulsory	5
ELEC	Technical Elective Course I*	-	Elective	6
ELEC	Technical Elective Course II*	-	Elective	6
ELEC	Cultural Elective Course II	-	Elective	3

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#### 6th Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
IE 300	Summer Practice II	0+0+0	Compulsory	5
IE 312	Simulation	3+0+1	Compulsory	5
IE 342	Production Planning and Control II	3+0+0	Compulsory	5
ELEC	Technical Elective Course III*	-	Elective	6
ELEC	Technical Elective Course IV*	-	Elective	6
ELEC	Cultural Elective Course III	-	Elective	3

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#### 7th Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
IE 401	Senior Design Project I	0+6+0	Compulsory	5
IE 451	Service Systems Management	3+0+0	Compulsory	5
IE 474	Project Management	3+0+0	Compulsory	5
ELEC	Cultural Elective Course IV	-	Elective	3
ELEC	Technical Elective Course V*	-	Elective	6
ELEC	Technical Elective Course VI*	-	Elective	6

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### 8th Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
IE 402	Senior Design Project II	0+8+0	Compulsory	8
IE 448	Decision Analysis	3+0+0	Compulsory	5
IE 462	Quality Control Management	3+0+0	Compulsory	5
ELEC	Technical Elective Course VII*	-	Elective	6
ELEC	Technical Elective Course VIII*	-	Elective	6

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**TOTAL**

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**\* Minimum 6 courses of 8 Technical Elective Courses should be department elective courses (IE coded courses). 2 courses can be selected from Engineering Faculty elective courses.**

### Elective Courses

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
IE 301	<i>Computing for Industrial Engineers</i>	3+0+0	Elective	6
IE 363	<i>Quality Assurance and Reliability</i>	3+0+0	Elective	6
IE 372	<i>Management Information Systems</i>	3+0+0	Elective	6
IE 412	<i>Decision Theory</i>	3+0+0	Elective	6
IE 413	<i>Management of Technology and Innovation for Engineers</i>	3+0+0	Elective	6
IE 414	<i>Decision Support Systems</i>	3+0+0	Elective	6
IE 431	<i>Applied Operations Research</i>	3+0+0	Elective	6
IE 441	<i>Facility Design</i>	3+0+0	Elective	6
IE 442	<i>Quantitative Models for Supply Chain Management</i>	3+0+0	Elective	6
IE 443	<i>Forecasting Methods and Applications</i>	3+0+0	Elective	6
IE 444	<i>Scheduling</i>	3+0+0	Elective	6
IE 445	<i>Pricing and Revenue Optimization</i>	3+0+0	Elective	6
IE 446	<i>Design and Analysis of Experiments</i>	3+0+0	Elective	6
IE 447	<i>Stochastic Models</i>	3+0+0	Elective	6
IE 450	<i>Fuzzy Set Theory and Fuzzy Logic</i>	3+0+0	Elective	6
IE 452	<i>Basic Modeling Techniques and Their Applications</i>	3+0+0	Elective	6
IE 453	<i>Computational Tools for Engineers</i>	3+0+0	Elective	6
IE 454	<i>Modelling with Fuzzy Logic</i>	3+0+0	Elective	6
IE 222	<i>Motion and Time Study</i>	2+2+0	Elective	6