

**INDUSTRIAL ENGINEERING UNDERGRADUATE CURRICULUM
(CURRENT)**

First Semester				ECTS			
ENG 121	Academic English I	2	2	3	4		
HIST 201	Principles of Atatürk and History of Turkish Revolution I	2	0	2	3		
IE 101	Industrial Engineering Orientation	2	0	2	3		
MCS 155	Calculus for Engineering I	3	2	4	5		
ME 115	Fundamentals of Computer Aided Engineering Drawing	2	2	3	6		
PHYS 131	Physics I	3	2	4	6		
TURK 101	Turkish I	2	0	2	3		
				16	8	20	30

Second Semester				ECTS			
CENG 198	Introduction to Computer Programming	2	2	3	5		
ECON 213	Principles of Economics	4	0	4	4		
ENG 122	Academic English II	2	2	3	4		
HIST 202	Principles of Atatürk and History of Turkish Revolution II	2	0	2	3		
MCS 156	Calculus for Engineering II	3	2	4	5		
PHYS 132	Physics II	3	2	4	6		
TURK 102	Turkish II	2	0	2	3		
				18	8	22	30

Third Semester				ECTS			
IE 227	Introduction to Probability	3	2	4	6		
IE 241	Cost Analysis in Engineering	3	0	3	5		
MCS 205	Basic Linear Algebra	3	0	3	4		
MCS 258	Introduction to Differential Equations	2	2	3	4		
MSE 225	Introduction to Materials Science	3	2	4	6		
ELECTIVE 1	Restricted Manufacturing Processes Elective (ME 243, ME 210)	2	2	3	5		
				16	8	20	30

Fourth Semester				ECTS			
IE 202	Work Study and Ergonomics	3	2	4	7		
IE 218	Computer Applications in IE	2	2	3	6		
IE 228	Engineering Statistics	3	2	4	7		
IE 232	Operations Research I - Modeling	4	2	5	7		
ELECTIVE 2	Free Elective	3	0	3	3		
				15	8	19	30

Fifth Semester				ECTS			
ESR 101	Ethics and Social Responsibility	1	0	1	1		
IE 200	Summer Training I	0	0	0	5		
IE 333	Operations Research II - Deterministic Problems	3	2	4	6		
IE 327	System Simulation	3	2	4	7		
IE 341	Engineering Economic Analysis	3	0	3	5		
IE 365	Manufacturing and Service Systems Planning I	3	2	4	6		
				13	6	16	30

Sixth Semester				ECTS			
IE 302	Facilities Design and Location	3	2	4	6		
IE 334	Operations Research III - Stochastic Problems	4	2	5	7		
IE 364	Production Information Systems	2	2	3	6		
IE 366	Manufacturing and Service Systems Planning II	3	2	4	6		
ELECTIVE 3	Restricted Non-Departmental Elective	3	0	3	5		
				15	8	19	30

Seventh Semester				ECTS			
IE 300	Summer Training II	0	0	0	5		
IE 407	Systems' Analysis	1	4	3	7		
IE 499	Seminars in IE Practice	2	0	2	2		
IE 427	Quality Engineering	3	2	4	6		
ELECTIVE 4	IE Elective 1	3	0	3	5		
ELECTIVE 5	IE Elective 2	3	0	3	5		
				12	6	15	30

Eighth Semester				ECTS			
IE 408	Systems' Design and Implementation	1	4	3	7		
MAN 431	Human in Organizations	3	0	3	4		
ELECTIVE 6	IE Elective 3	3	0	3	5		
ELECTIVE 7	Restricted Management Elective (MAN 433, MAN 432, MAN 102*)	3	0	3	5		
ELECTIVE 8	MAN/ECON Elective	3	0	3	5		
ELECTIVE 9	Restricted Law Elective (IE 464, MAN 323, MAN 429)	3	0	3	4		
				16	4	18	30

TOTAL CREDITS **121 56 149 240**

**INDUSTRIAL ENGINEERING UNDERGRADUATE CURRICULUM (Starting from 2016-2017 Fall Semester)
(NEW)**

First Semester				ECTS			
ENG 121	Academic English I	2	2	3	4		
HIST 201	Principles of Atatürk and History of Turkish Revolution I	2	0	2	3		
ECON 213	Principles of Economics	4	0	4	4		
MATH 155**	Calculus for Engineering I	3	2	4	5		
IE 117	Computational Programming Tools in IE	2	2	3	5		
PHYS 131	Physics I	3	2	4	6		
TURK 101	Turkish I	2	0	2	3		
				18	8	22	30

Second Semester				ECTS			
ME 113	Computer Aided Engineering Drawing I	2	2	3	6		
IE 101	Industrial Engineering Orientation	2	0	2	3		
ENG 122	Academic English II	2	2	3	4		
HIST 202	Principles of Atatürk and History of Turkish Revolution II	2	0	2	3		
MATH 156**	Calculus for Engineering II	3	2	4	5		
PHYS 132	Physics II	3	2	4	6		
TURK 102	Turkish II	2	0	2	3		
				16	8	20	30

Third Semester				ECTS			
IE 227	Introduction to Probability	3	2	4	6		
IE 241	Cost Analysis in Engineering	3	0	3	5		
MATH 205**	Basic Linear Algebra	3	0	3	4		
ME 215	Fundamentals of Thermal Systems	3	0	3	4		
MSE 225	Introduction to Materials Science	3	2	4	6		
ME 210	Manufacturing Processes	3	2	4	5		
				18	6	21	30

Fourth Semester				ECTS			
IE 202	Work Study and Ergonomics	3	2	4	7		
IE 218	Computer Applications in IE	3	2	4	7		
IE 228	Engineering Statistics	3	2	4	6		
IE 232	Operations Research I - Modeling	3	2	4	6		
ELECTIVE 1	Social Sciences Elective (Any course from the Pool)	3	0	3	4		
				15	8	19	30

Fifth Semester				ECTS			
ESR 101	Ethics and Social Responsibility	1	0	1	1		
IE 200	Summer Training I	0	0	0	5		
IE 333	Operations Research II - Deterministic Problems	3	2	4	6		
IE 334	Operations Research III - Stochastic Problems	3	2	4	7		
IE 341	Engineering Economic Analysis	3	0	3	5		
IE 365	Manufacturing and Service Systems Planning I	3	2	4	6		
				13	6	16	30

Sixth Semester				ECTS			
IE 302	Facilities Design and Location	3	2	4	6		
IE 327	System Simulation	3	2	4	6		
IE 364	Production Information Systems	2	2	3	6		
IE 366	Manufacturing and Service Systems Planning II	3	2	4	6		
IE 326	Quality Engineering	3	2	4	6		
				14	10	19	30

Seventh Semester				ECTS			
IE 300	Summer Training II	0	0	0	5		
IE 407	Systems' Analysis	1	4	3	7		
IE 499	Seminars in IE Practice	2	0	2	3		
MAN 433	Fundamentals of Business and Management	3	0	3	4		
ELECTIVE 2	IE Elective 1	3	0	3	5		
ELECTIVE 3	IE Elective 2	3	0	3	5		
				12	4	14	30

Eighth Semester				ECTS			
IE 408	Systems' Design and Implementation	1	4	3	7		
MAN 431	Human in Organizations	3	0	3	4		
ELECTIVE 4	IE Elective 3	3	0	3	5		
ELECTIVE 5	IE Elective 4	3	0	3	5		
ELECTIVE 6	Social Sciences Elective (Any course with MAN/ECON code from the Pool)	3	0	3	5		
IE 464	Law for Engineers	3	0	3	4		
				16	4	18	30

TOTAL CREDITS **122 54 149 240**

(*) Only for those students who had this course in their curriculum when they started the IE program.
 (**) Initials of MCS service courses are changed to MATH (no other changes related to content, prerequisite, credits).