

ISTANBUL AREL UNIVERSITY
FACULTY OF ENGINEERING & ARCHITECTURE
DEPARTMENT OF INDUSTRIAL ENGINEERING

YEAR ONE

1st Semester

2nd Semester

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN101	Fundamentals of Engineering & Orientation	C	2	0	2	5	
IEN103	Engineering Drawing	C	1	2	2	3	
IEN105	Industrial Chemistry	C	2	0	2	2	
CEN103	Introduction to Information Technologies	C	2	2	3	4	
MTH101	Calculus-I	C	3	2	4	5	
MTH107	Physics-I	C	3	2	4	5	
TRL101	Turkish Language-I	C	2	0	2	3	
ENG105	Communication Skills and Academic Reporting-I	C	2	2	3	3	
Total Credits			17	10	22	30	

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN102	Introduction to Industrial Engineering	C	3	0	3	5	
BUS101	Micro Economics	C	3	0	3	4	
CEN102	Algorithms and Programming	C	2	2	3	5	
MTH102	Calculus-II	C	3	2	4	5	
MTH108	Physics-II	C	3	2	4	5	
TRL102	Turkish Language-II	C	2	0	2	3	
ENG106	Communication Skills and Academic Reporting-II	C	2	2	3	3	
Total Credits			18	8	22	30	

YEAR TWO

3rd Semester

4th Semester

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN201	Probability for Engineers	C	3	0	3	7	
IEN203	Fundamentals of Accounting	C	2	2	3	6	
ENG205	Professional English-I	C	2	2	3	3	
EEN211	Electric Circuits Measurements and Laboratory	C	3	2	4	5	
MTH213	Linear Algebra	C	3	0	3	6	
AHR101	Principles of Atatürk and History of Reforms-I	C	2	0	2	3	
IEN281	Summer Training - 20 Days	C	0	0	0	0	
Total Credits			15	6	18	30	

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN202	Statistics for Engineers	C	3	0	3	6	IEN201
IEN204	Cost Management	C	3	0	3	5	IEN203
IEN206	Thermodynamics	C	2	2	3	5	
ENG206	Professional English-II	C	2	2	3	3	
MTH211	Differential Equations	C	2	2	3	5	
AHR102	Principles of Atatürk and History of Reforms-II	C	2	0	2	3	
BUS216	Fundamentals of Business Administration	C	3	0	3	3	
Total Credits			17	6	20	30	

YEAR THREE

5th Semester

6th Semester

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN301	Engineering Economy & Cost Analysis-I	C	3	0	3	5	IEN203
IEN303	Operations Research-I	C	3	2	4	5	MTH213
IEN305	Project Management	C	2	2	3	4	
IEN307	Production Management	C	3	0	3	4	
IEN309	Work Methods & Design	C	2	2	3	4	
EAR101	History of Civilization	C	3	0	3	3	
IEN....	Elective-I	E	2	0	2	5	
IEN381	Summer Training - 20 Days	C	0	0	0	0	
Total Credits			18	6	21	30	

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN302	Engineering Economy & Cost Analysis-II	C	3	0	3	4	IEN301
IEN304	Operations Research-II	C	3	2	4	4	IEN303
IEN306	System Analysis and Simulation	C	2	2	3	4	
IEN308	Production Planning & Control	C	2	2	3	4	IEN303, IEN307
IEN310	Plant Layout and Facility Planning	C	1	2	2	4	IEN303, IEN309
BUS112	History and Philosophy of Science	C	3	0	3	3	
BUS310	Human Resources Management	C	2	0	2	4	
IEN....	Elective-II	E	2	0	2	3	
Total Credits			18	8	22	30	

YEAR FOUR

7th Semester

8th Semester

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN491	Graduation Design Project	C	0	4	2	10	
IEN401	Supply Chain Management	C	3	0	3	3	
IEN403	Statistical Quality Control	C	3	2	4	4	IEN201, IEN202
IEN481	Summer Training - 20 Days	C	0	0	0	0	
IEN....	Free Elective	E	2	0	2	3	
IEN....	Elective-III	E	2	0	2	5	
IEN....	Elective-IV	E	2	0	2	5	
Total Credits			12	6	15	30	

Code	Course Name		T	P	C	ECTS	Prerequisite
IEN492	Graduation Project	C	0	4	2	14	IEN491
IEN402	Decision Analysis	C	3	0	3	2	IEN304
IEN404	Quality Planning & Design	C	3	0	3	2	IEN403
IEN406	Logistics	C	3	0	3	2	IEN201
IEN....	Elective-V	E	2	0	2	5	
IEN....	Elective-VI	E	2	0	2	5	
Total Credits			13	4	15	30	

ELECTIVE COURSES

5th Semester

COURSE CODE	COURSE NAME		T	P	C	ECTS	Prerequisite
IEN313	Stochastical Processes	E	2	0	2	5	IEN201
IEN341	Management Planning and Control Systems	E	2	0	2	5	
IEN343	Organization Theory and Development	E	2	0	2	5	
IEN351	Financial Management	E	2	0	2	5	

6th Semester

COURSE CODE	COURSE NAME		T	P	C	ECTS	Prerequisite
IEN316	Systems Dynamics	E	2	0	2	5	
IEN318	Game Theory	E	2	0	2	5	
IEN336	Engineering Materials	E	2	0	2	5	
IEN346	Technology Management	E	2	0	2	5	

7th Semester

COURSE CODE	COURSE NAME		T	P	C	ECTS	Prerequisite
IEN421	Inventory Theory	E	2	0	2	5	
IEN423	Total Quality Management	E	2	0	2	5	IEN202
IEN425	Quality Improvement Techniques	E	2	0	2	5	
IEN427	Industrial Networks and Clusters	E	2	0	2	5	
IEN435	Ergonomics with Applications	E	2	0	2	5	IEN309
IEN447	Management Information Systems	E	2	0	2	5	
IEN453	Job Evaluation and Salary Administration	E	2	0	2	5	

8th Semester

COURSE CODE	COURSE NAME		T	P	C	ECTS	Prerequisite
IEN418	Forecasting Methods	E	2	0	2	5	IEN202
IEN434	Occupational and Industrial Safety	E	2	0	2	5	
IEN452	Economic Models for Decision and Policy Analysis	E	2	0	2	5	IEN302
IEN454	Quantitative Business Analysis	E	2	0	2	5	
IEN456	Introduction to Organizational Communication	E	2	0	2	5	
IEN458	Business Ethics and Law	E	2	0	2	5	

Option Code 1 : System Engineering

Option Code 2 : Quality Engineering

Option Code 3 : Production Engineering

Option Code 4 : Information Engineering

Option Code 5 : Decision Systems

Option Code 6 : Financial Engineering

Option Code 7 : Technology Engineering

Option Code 8 : Transportation Engineering

Option Code 9 : Management Engineering

Option Code 10 : Energy Engineering

Option Code 11 : Plant Engineering

Option Code 12 : Service Engineering

Option Code 13 : Communications Engineering

Option Code 14 : Operations Engineering