

IGDIR UNIVERSITY

DEPARTMENT OF MECHANICAL ENGINEERING

CURRICULUM OF 2019

SEMESTER I							SEMESTER II								
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR	COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	MATHEMATICS-I	4	0	0	4	5			MATHEMATICS-II	4	0	0	4	5	
	PHYSICS-I	3	0	2	4	5			PHYSICS-II	3	0	2	4	5	
	GENERAL CHEMISTRY	3	0	0	3	4			STATICS	3	0	0	3	5	
	TECHNICAL DRAWING	2	2	0	3	4			ENGINEERING MEASUREMENTS	2	0	0	2	2	
	COMPUTER PROGRAMMING	2	2	0	3	5			COMPUTER AIDED TECH. DRAWING	2	2	0	3	5	
	INTRODUCTION TO MECHANICAL ENGINEERING	2	0	0	2	3			STATISTICS AND PROBABILITY	3	0	0	3	4	
	ENGLISH-I	2	0	0	2	2			ENGLISH-II	2	0	0	2	2	
	ATATURK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION -I	2	0	0	2	2			DIGITAL LITERACY	3	0	0	3	3	
	TURKISH-I	2	0	0	2	2			ATATURK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION -II	2	0	0	2	2	
									TURKISH-II	2	0	0	2	2	
	SEMESTER I TOTAL	22	4	2	25	32			SEMESTER II TOTAL	26	2	2	28	35	
									FIRST YEAR TOTAL	48	6	4	53	67	
SEMESTER III							SEMESTER IV								
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR	COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	DIFFERENTIAL EQUATIONS	3	0	0	3	5			ENGINEERING MATHEMATICS	3	0	0	3	5	
	MATERIALS SCIENCE-I	3	0	0	3	4			MATERIALS SCIENCE-II	3	0	0	3	4	
	MECHANICS OF MATERIALS-I	3	0	0	3	5	Statics		FLUID MECHANICS	3	0	0	3	5	
	DYNAMICS	3	0	0	3	5			MECHANICS OF MATERIALS-II	3	0	0	3	5	Statics
	THERMODYNAMICS-I	3	0	0	3	5			MANUFACTURING PROCESSES	3	0	0	3	5	
	OCCUPATIONAL HEALTH AND SAFETY-I	2	0	0	2	2			THERMODYNAMICS-II	3	0	0	3	5	Thermodynamics-I
	FUNDAMENTALS OF ELECTRIC AND ELECTRONICS	3	0	0	3	4			OCCUPATIONAL HEALTH AND SAFETY-II	2	0	0	2	2	
	SEMESTER III TOTAL	20	0	0	20	30			SEMESTER IV TOTAL	20	0	0	20	31	
									SECOND YEAR TOTAL	40	0	0	40	61	
SEMESTER V							SEMESTER VI								
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR	COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	MACHINE DESIGN-I	3	0	0	3	5	Mechanics of Materials-I		MACHINE DESIGN-II	3	0	0	3	5	Mechanics of Materials-I
	HEAT TRANSFER-I	3	0	0	3	5			DYNAMICS OF MACHINERY	3	0	0	3	5	
	NUMERICAL METHODS	2	2	0	3	4			MECHANICAL VIBRATIONS	3	0	0	3	5	
	MACHINE TOOLS	1	2	0	2	4			FACULTY ELECTIVE-II	3	0	0	3	4	
	FACULTY ELECTIVE-I	3	0	0	3	4			HEAT TRANSFER-II	3	0	0	3	5	
	LABORATORY-I	0	0	2	1	4			LABORATORY-II	0	0	2	1	4	
	INTERNSHIP-I	0	0	0	0	2									
	SEMESTER V TOTAL	12	4	2	15	28			SEMESTER VI TOTAL	15	0	2	16	28	
									THIRD YEAR TOTAL	27	4	4	31	56	
SEMESTER VII							SEMESTER VIII								
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR	COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	GRADUATION PROJECT-I	2	0	0	2	5			GRADUATION PROJECT-II	2	0	0	2	5	
	TECHNICAL ELECTIVE-I	3	0	0	3	5			TECHNICAL ELECTIVE-III	3	0	0	3	5	
	TECHNICAL ELECTIVE-II	3	0	0	3	5			TECHNICAL ELECTIVE-IV	3	0	0	3	5	
	HEATING VENTILATION AND AIR CONDITIONING	3	0	0	3	5			TECHNICAL ELECTIVE-V	3	0	0	3	5	
	BUSINESS ENGLISH	2	0	0	2	3			TECHNICAL ELECTIVE-VI	3	0	0	3	5	
	FACULTY ELECTIVE-III	3	0	0	3	4			TECHNICAL ELECTIVE-VII	3	0	0	3	5	
	INTERNSHIP-II	0	0	0	0	2									
	SEMESTER VII TOTAL	16	0	0	16	29			SEMESTER VIII TOTAL	17	0	0	17	30	
									FOURTH YEAR TOTAL	33	0	0	33	59	

TOTAL CREDITS	157
TOTAL COURSE HOURS	166
TOTAL ECTS	243

SEMESTER VIII (FOR STUDENTS ELIGIBLE FOR APPLIED ENGINEERING EDUCATION)						
COURSE CODE	COURSE NAME	T	U	L	AKTS	ON SART
	GRADUATION PROJECT-II	2	0	0	2	5
	APPLIED ENGINEERING EDUCATION	0	0	0	15	25
	FOURTH YEAR TOTAL	18	0	0	33	59
	TOTAL CREDITS					157
	TOTAL COURSE HOURS					166
	TOTAL ECTS					243

TECHNICAL ELECTIVE COURSES							
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	Mechanical Experiments in Engineering	3	0	0	3	5	
	Finite Element Methods-I	3	0	0	3	5	
	Renewable Energy Systems	3	0	0	3	5	
	Refrigeration Technology	3	0	0	3	5	
TECHNICAL ELECTIVE-II							
	Internal Combustion Engines	3	0	0	3	5	
	Transport Tecnique	3	0	0	3	5	
	Hydraulic Machinery	3	0	0	3	5	
	Electrical and Hybrid Electrical Vehicles	3	0	0	3	5	
TECHNICAL ELECTIVE-V							
	Composite Materials	3	0	0	3	5	
	Mechanisms	3	0	0	3	5	
	Energy conversion Systems	3	0	0	3	5	
	Hydraulic and Pneumatic Circuits	3	0	0	3	5	
TECHNICAL ELECTIVE-VII							
	Introduction to Nanotechnology and Nano systems	3	0	0	3	5	
	Fuels and Combustion	3	0	0	3	5	
	Mechanical Installation for Buildings	3	0	0	3	5	

TECHNICAL ELECTIVE-III							
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	Mechanical Behaviours of Materials	3	0	0	3	5	
	Finite Element Methods-II	3	0	0	3	5	
	Computational Fluid Dynamics	3	0	0	3	5	
	Mass Transfer	3	0	0	3	5	
TECHNICAL ELECTIVE-IV							
	Microsystem and MEMS Design	3	0	0	3	5	
	Tribology	3	0	0	3	5	
	Heat Exchangers	3	0	0	3	5	
	Energy Management	3	0	0	3	5	
TECHNICAL ELECTIVE-VI							
	Fatigue Analysis	3	0	0	3	5	
	Heat Treatments	3	0	0	3	5	
	Natural Gas Systems	3	0	0	3	5	
	Optimization Techniques	3	0	0	3	5	

FALL SEMESTER FACULTY ELECTIVE COURSES							
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	Entrepreneurship-I	3	0	0	3	4	
	Introduction to Economy	3	0	0	3	4	
	Business Administration	3	0	0	3	4	
	Sociology	3	0	0	3	4	
	Industrial Relations	3	0	0	3	4	
	Engineering Ethics	3	0	0	3	4	
	Public Relations	3	0	0	3	4	
	Construction Management	3	0	0	3	4	
	Plant Organization	3	0	0	3	4	

SPRING SEMESTER FACULTY ELECTIVE COURSES							
COURSE CODE	COURSE NAME	T	A	L	C	ECTS	PREREQUISITE FOR
	Entrepreneurship-II	3	0	0	3	4	
	Communication Skills	3	0	0	3	4	
	Introduction to Turkish and Islamic Philosophy	3	0	0	3	4	
	Business Law	3	0	0	3	4	
	Financial Management	3	0	0	3	4	
	Human Resources Management	3	0	0	3	4	
	History and Philosophy of Science	3	0	0	3	4	
	Traffic Safety	3	0	0	3	4	