

IZMIR INSTITUTE OF TECHNOLOGY
FACULTY OF SCIENCE
DEPARTMENT OF PHYSICS
UNDERGRADUATE PROGRAM-2023

First Semester				Credits	ECTS	PRCD/CRCO
PHYS	101	General Physics I	(2+2)	3	6	
PHYS	111	General Physics Lab I	(0+2)	1	2	CRCO: PHYS 101
MATH	101	Pre-Calculus	(2+0)	0	2	
MATH	145	Calculus for Engineering and Science I	(4+2)	5	7	
CHEM	121	General Chemistry I	(3+0)	3	5	
CHEM	141	General Chemistry Lab I	(0+2)	1	2	
ENG	101	Development of Reading and Writing Skills I	(3+0)	3	3	
				16	27	

Second Semester				Credits	ECTS	PRCD/CRCO
PHYS	102	General Physics II	(2+2)	3	6	
PHYS	112	General Physics Lab II	(0+2)	1	2	CRCO: PHYS 102
PHYS	114	Introduction to Programming for Physicists	(3+0)	3	5	
MATH	146	Calculus for Engineering and Science II	(4+2)	5	8	
CHEM	122	General Chemistry II	(3+0)	3	5	
CHEM	142	General Chemistry Lab II	(0+2)	1	2	
GCC	101	Career Planning and Development	(2+0)	0	2	
ENG	102	Development of Reading and Writing Skills II	(3+0)	3	3	
				19	33	

Third Semester				Credits	ECTS	PRCD/CRCO
PHYS	201	Waves and Optics	(4+0)	4	6	
PHYS	203	Classical Mechanics I	(3+0)	3	7	
MATH	255	Differential Equations	(4+0)	4	6	
MATH	265	Basic Linear Algebra	(3+0)	3	4	
ELS I		Non-Technical Elective Course I	(3+0)	3	3	
HIST	201	Principles of Kemal Atatürk I	(2+0)	0	2	
TURK	201	Turkish Language I	(2+0)	0	2	
				17	30	

Fourth Semester				Credits	ECTS	PRCD/CRCO
PHYS	204	Classical Mechanics II	(3+0)	3	6	PRCD: PHYS 203
PHYS	212	Waves and Optics Lab	(0+4)	2	2	PRCD: PHYS 201
PHYS	222	Modern Physics	(4+0)	4	6	
PHYS	266	Mathematical Methods of Physics	(4+0)	4	6	
ELS II		Non-Technical Elective Course II	(3+0)	3	3	
ELS III		Non-Technical Elective Course III	(3+0)	3	3	
HIST	202	Principles of Kemal Atatürk II	(2+0)	0	2	
TURK	202	Turkish Language II	(2+0)	0	2	
				19	30	

Fifth Semester				Credits	ECTS	PRCD/CRCO
PHYS	301	Electromagnetic Theory I	(4+0)	4	7	
PHYS	305	Experiments in Modern Physics	(0+4)	2	6	PRCD: PHYS 222
PHYS	315	Numerical Methods in Physics	(2+2)	3	6	
PHYS	321	Quantum Mechanics I	(4+0)	4	7	
ELT 1		Technical Elective Course I	(3+0)	3	4	
				16	30	

Sixth Semester				Credits	ECTS	PRCD/CRCO
PHYS	302	Electromagnetic Theory II	(4+0)	4	7	PRCD: PHYS 301
PHYS	320	Introductory Electronic Circuits	(2+2)	3	6	
PHYS	322	Quantum Mechanics II	(4+0)	4	7	PRCD: PHYS 321
PHYS	326	Statistical Thermodynamics	(4+0)	4	5	
ELT 2		Technical Elective Course II	(3+0)	3	5	
				18	30	

Seventh Semester				Credits	ECTS	PRCD/CRCO
PHYS	431	Condensed Matter Physics I	(3+0)	3	6	
PHYS	452	Introduction to Particle Physics	(3+0)	3	6	
ELT 3		Technical Elective Course III	(3+0)	3	6	
ELT 4		Technical Elective Course IV	(3+0)	3	6	
ELT 5		Technical Elective Course V	(3+0)	3	6	
				15	30	

Eight Semester				Credits	ECTS	PRCD/CRCO
PHYS	432	Condensed Matter Physics II	(3+0)	3	6	PRCD: PHYS 431
ELT 6		Technical Elective Course VI	(3+0)	3	6	
ELT 7		Technical Elective Course VII	(3+0)	3	6	
ELT 8		Technical Elective Course VIII	(3+0)	3	6	
ELT 9		Technical Elective Course IX	(3+0)	3	6	
				15	30	

			Total	Credits	135	240	
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