DOKUZ EYLÜL UNIVERSITY – FACULTY OF SCIENCE



PHYSICS DEPARTMENT – Undergraduate Cirriculum



FIRST YEAR					
Fall Semester			Spring Semester		
Code	Title	ECTS	Code	Title	ECTS
FIZ 1013	Physics I (Mechanics)	7	FIZ 1006	Physics II (Electric and Magnetism)	8
FIZ 1019	Physics Laboratory I	2	FIZ 1010	Physics Laboratory II	4
KIM 1201	Chemistry I	5	KİM 1202	Chemistry II	5
KPD 1000	Career Planning	2	MAT 1032	Calculus II	8
MAT 1031	Calculus I	8	PHY 1002	Technical English II	3
PHY 1001	Technical English I	2	TDL 1002	Turkish Language II	2
TDL 1001	Turkish Language I	2			
	Elective Course	2			
		TOTAL: 30			TOTAL: 30
	Elective Courses				
BDE 1003	Physical Education	2			
GSH 1003	Folk Dancing	2			
GSM 1003	Music	2			
GSR 1003	Paintng	2			

Fall Semester			Spring Semester		
Code	Title	ECTS	Code	Title	ECTS
ATA 1001	Principles of Atatürk and	2	ATA 1002	Principles of Atatürk and	2
	History of the Turkish			History of the Turkish	
	Revolution I			Revolution II	
FIZ 2901	Physics Laboratory III	2	FIZ 2904	Physics Laboratory IV	2
FIZ 2903	Mathematical Methods in	8	FIZ 2906	Mathematical Methods in	8
	Physics I			Physics II	
PHY 2905	Physics III (Fluid, Waves and	8	PHY 2902	Physics IV (Optics and	8
	Thermodynamics)			Modern Physics)	
PHY 2907	Introduction to Programming	8	PHY 2908	Computational	8
	Language			Applications in Physics	
	Elective Course	2		Elective Course	2
		TOTAL: 30			TOTAL: 30

THIRD YEAI	₹					
Fall Semester			Spring Semester			
Code	Title	ECTS	Code	Title	ECTS	
FIZ 3901	Analytical Mechanics	7	FIZ 3904	Statistical Physics	6	
PHY 3903	Quantum Mechanics I	7	PHY 3906	Electromagnetic Theory II	7	
PHY 3905	Electromagnetic Theory I	7	PHY 3908	Quantum Mechanics II	6	
	Elective Course	9		Elective Course	11	
		TOTAL: 30			TOTAL: 30	
	Elective Courses			Elective Courses		
FIZ 3111	Structure and Properties of	7	FIZ 3110	Introduction to	7	
	Matter			Astrophysics		
FIZ 3115	Current Issues in Physics	7	FIZ 3114	Renewable Energy	7	
				Resources		
FIZ 3119	Special Relativity	7	FIZ 3116	Biophysics	7	
FIZ 3121	Thermal Physics	7	FIZ 3120	Data Analysis in Physics	7	
MAT 3005	Linear Algebra	7	PHY 3104	Electronics II	7	
PHY 3103	Electronics I	7				

Fall Semester			Spring Semester			
Code	Title	ECTS	Code	Title	ECTS	
FIZ 4901	Solid State Physics I	7	FIZ 4902	Solid State Physics II	7	
FIZ 4903	Atom and Molecular Physics I	7	FIZ 4904	Nuclear Physics	7	
FIZ 4905	Senior Project (Preparatory)	7	FIZ 4906	Senior Project (Outcome)	7	
ISG 4001	Occupational Health and Safety I	2	ISG 4002	Occupational Health and Safety II	2	
	Elective Course	7		Elective Course	7	
		TOTAL: 30			TOTAL: 30	
	Elective Courses			Elective Courses		
FIZ 4121	Introduction to Optoelectronics	7	FIZ 4124	Spectroscopic Methods	7	
FIZ 4123	Dating by Physical Techniques	7	FIZ 4126	Introduction to Crystallography	7	
FIZ 4135	Introduction to Liquid Crystals	7	FIZ 4136	Introduction to Molecular Modelling	7	
FIZ 4137	Introduction to Relativistic Quantum Mechanics	7	FIZ 4142	Applications of Nuclear Physics	7	
FIZ 4139	Radiation Physics	7	FIZ 4144	Introduction to Superconductivity	7	
FIZ 4141	Introduction to Quantum Optics	7	FIZ 4146	Introduction to Quantum Theory of Solids	7	
PHY 4109	Introduction to Phase Transition and Critical Phenomena	7	FIZ 4148	Introduction to Health Physics	7	
PHY 4111	Elementary Particle Physics I	7	FIZ 4150	Introduction to Semiconductors	7	
			FIZ 4102	Introduction to	7	

			Nanophysics	
		PHY 4108	Elementary Particle Physics	7
			II	

Code	ACULTY ELECTIVE COURSES Title	ECTS
GÇD 1000	Volunteerism Studies	4
FPE 0049	Soft Computing Techniques	5
FPE 0050	Software Project Management	5
FPE 0051	Biological Impacts of Climate Change	6
FPE 0052	Human Anatomy and Physiology	6
FPE 0053	Quantum Physics for Everyone	7
FPE 0054	Dark Matter and Mysterious of the Universe – I	7
FPE 0055	Time Series Models	6
FPE 0056	Estimation and Hypothesis Testing	6
FPE 0057	Material Chemistry	5
FPE 0059	Discrete Mathematics and Its Applications	5
FPE 0060	Proof Techniques	2
FPE 0061	Nanomaterials and Medical Applications	5
FSH 001	Communications Skills	2
FSH 002	Professional Values and Ethics	2
FSH 003	Philosophy (History of Ideas)	2
FSH 0004	Philosophy of Science	2
FSH 0005	Intoduction to Psychology	2
FSH 0006	History of Science	2
FSH 0007	Solution of Interpersonal Conflicts	2
FSH 0008	Science in Daily Life	2
FSH 0009	Multisided Thinking	2
FSH 0010	Interdisciplinarity: Science, Art, Game	2
FSH 0011	Creavity, RD, Innovation	2
FSH 0012	Future Planning and Strategy	2
FSH 0013	Youth Entrepreneurship	2
FSH 0014	Geopolitics of Turkey	2
FSH 0015	Globalization and the New World Order	2
FSH 0016	Anatolian Civilizations	2
FSH 0017	Cultura History of the Aegean	2
FSH 0018	Museum and Art	2
FSH 0019	Discourse Analysis	2
FSH 0020	Management	2
FSH 0021	Economics	2
FSH 0022	Accounting	2
FSH 0023	Marketing	2
FSH 0024	Basic Law	2
FSH 0025	Money and Banking	2
FSH 0026	Total Quality and Accreditation	2
FSH 0027	History of Turkish Education	2
FSH 0028	Flowering Plants, Nature's Healing Hands	2
FSH 0029	Basic Banking and Information Technologies	2

FSH 0030	Technical English	2
FSH 0031	Translation	2
FSH 0032	Text Analysis	2
FSH 0033	Semantics	2
FSH 0034	Terminology and Terminography	2
FSH 0035	Financial Economics	2
FSH 0036	Economic Globalization	2
FSH 0037	Foreign Language Russian I	2
FSH 0038	Foreign Language Russian I	2
FSH 0040	Chemistry and Art	2
FSH 0041	Quantum Era	2
FSH 0042	Basic Statistics	2
FSH 0043	Reflections of Modern Life	2
FSH 0044	Scientific Writing With Latex	2
FSH 0045	Introduction to Programming With Python	2
FSH 0046	Zoogeography	2
FSH 0047	Creating Reports and Presentations by Office Programs	2
FSH 0048	Excel for Business World	2
FSH 0049	Biological Impacts of Climate Change	2