

THE CURRICULUM OF THE FIRST EDUCATION PROGRAMME OF THE CHEMISTRY DEPARTMENT

FIRS

I. Semester

Available course code	Suggested course code	Name of the course	C/E	T	A	C
PHYS1011	PHYS1113	GENERAL PHYSICS I	Z	4	0	4
CHEM1101	CHEM1101	GENERAL CHEMISTRY I	Z	6	0	6
CHEM1003	CHEM1110	GENERAL CHEMISTRY LABORATORY I	Z	0	4	2
MAT1011	MATH1141	ANALYSIS I	Z	4	0	4
TRD109	TRD109	TURKISH LANGUAGE	Z	2	0	2
YDİ107	YDİ107	ENGLISH	Z	2	0	2
PHYS1005	PHYS1107	GENERAL PHYSICS LABORATORY I	Z	0	2	1
CHEM1XXX	CHEM1XXX	FIELD ELECTIVE-1	S	2	0	2
		Field Elective Course List				
CHEM1013	CHEM1113	LABORATORY TECHNIQUE AND SAFETY	S	2	0	2
CHEM1015	CHEM1115	SOURCE SCANNING AND REPORT PREPARATION	S	2	0	2
		Semester Total		20	6	23

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III. Semester

Available course code	Suggested course code	Name of the course	C/E	T	A	C
AIT209	AIT209	ATATÜRK PRINCIPLES AND HISTORY OF REVOLUTION	Z	2	0	2
CHEM2021	CHEM2121	ANALITICAL CHEMISTRY I	Z	4	0	4
CHEM2023	CHEM2123	ANALITICAL CHEMISTRY LABORATORY I	Z	0	4	2
CHEM2025	CHEM2125	COMPUTERS APPLICATIONS FOR CHEMISTS	Z	2	0	2
CHEM2031	CHEM2131	ORGANIC CHEMISTRY I	Z	4	0	4
CHEM2001	MATH2123	ADVANCED MATHS	Z	3	0	3
CHEM2027	CHEM2127	ANORGANIC CHEMISTRY I	Z	4	0	4
YDI207	YDI207	ENGLISH	Z	2	0	2
	SEC2101	SOCIAL ELECTIVE COURSE-I	S	2	0	2
		Semester Total		23	4	25

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V. Semester						
Available course code	Suggested course code	Name of the course	C/E	T	A	C
CHEM3031	CHEM3131	ORGANIC CHEMISTRY III	Z	4	0	4
CHEM3023	CHEM3123	ANALYTICAL CHEMISTRY III	Z	2	0	2
CHEM3053	CHEM3153	BIOINORGANIC CHEMISTRY	Z	2	0	2
CHEM3021	CHEM3121	INSTRUMENTAL ANALYSIS	Z	4	0	4
CHEM3033	CHEM3133	ORGANIC CHEMISTRY LABORATORY I	Z	0	4	2
CHEM3041	CHEM3141	PHYSICAL CHEMISTRY I	Z	4	0	4
CHEM3037	CHEM3137	SPECTRO ORGANIC ANALYSIS	Z	2	0	2
	SEC3101	SOCIAL ELECTIVE COURSE-III	S	2	0	2
		Semester Total		20	4	22
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VII. Semester						
Available course code	Suggested course code	Name of the course	C/E	T	A	C
CHEM4001	CHEM4101	SEMINAR	Z	0	2	1
CHEM4041	CHEM4141	PHYSICAL CHEMISTRY III	Z	4	0	4
CHEM4061	CHEM4161	BIOCHEMISTRY I	Z	4	0	4
CHEM4054	CHEM4153	QUANTUM CHEMISTRY	Z	2	0	2
CHEM4051	CHEM4151	POLYMER CHEMISTRY LABORATORY	Z	0	2	1
CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 1	S	2	0	2
CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 2	S	2	0	2
CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 3	S	2	0	2
CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 4	S	2	0	2
		FIELD ELECTIVE COURSE LISTS				
CHEM4021	CHEM4121	SPECTROSCOPY	S	2	0	2

CHEM4023	CHEM4123	INDUSTRIAL SEPARATION METHODS	S	2	0	2
CHEM4039	CHEM4139	HETEROCYCLIC COMPOUNDS	S	2	0	2
CHEM4035	CHEM4135	BIOORGANIC CHEMISTRY	S	2	0	2
CHEM4043	CHEM4143	PLASTIC TECHNOLOGY	S	2	0	2
CHEM4059	CHEM4159	PETROCHEMISTRY	S	2	0	2
CHEM4055	CHEM4155	COORDINATION CHEMISTRY	S	2	0	2
CHEM4025	CHEM4125	PHYTOTHERAPY AND BIOCHEMISTRY	S	2	0	2
CHEM4027	CHEM4127	POLYMER COMPOSITES	S	2	0	2
CHEM4029	CHEM4129	CONDUCTIVE POLYMERS	S	2	0	2
		SEMESTER TOTAL		18	4	20
Total Theoretical Course Hours				146		
Total Application Course Hours				50		
Total Credit				171		
Total Course Hours				196		
Total ECTS credits				240		
Application Ratio				25.51		

CHEMISTRY DEPARTMENT AUTUMN S						
Available course code	Suggested course code	Name of the course	C/E	T	A	C
CHEM105	CHEM1105	GENERAL CHEMISTRY	Z	4	0	4
CHEM109	CHEM1109	GENERAL CHEMISTRY LABORATORY	Z	0	2	1
CHEM111	CHEM1111	GENERAL CHEMISTRY I	Z	3	0	3
CHEM101	CHEM1101	GENERAL CHEMISTRY I	Z	4	0	4
CHEM225	CHEM2125	ANALYTICAL CHEMISTRY	Z	2	0	2
CHEM331	CHEM3131	INSTRUMENTAL ANALYSIS	Z	2	0	2
CHEM221	CHEM2121	ANALITICAL CHEMISTRY	Z	3	0	3
CHEM241	CHEM2141	PHYSICAL CHEMISTRY	Z	3	0	3
CHEM227	CHEM2127	ANALYTICAL CHEMISTRY LABORATORY	Z	0	3	1
CHEM233	CHEM2133	ORGANIC CHEMISTRY I	Z	2	0	2
CHEM109	CHEM1109	GENERAL CHEMISTRY I	Z	3	0	3
CHEM115	CHEM1115	GENERAL CHEMISTRY	Z	2	2	3
CHEM113	CHEM1113	GENERAL CHEMISTRY LABORATORY	Z	0	2	1
CHEM111	CHEM1111	GENERAL CHEMISTRY I	Z	2	2	3
CHEM101	CHEM1101	GENERAL CHEMISTRY	Z	2	0	2
CHEM103	CHEM1103	GENERAL CHEMISTRY	Z	2	0	2
CHEM101	CHEM1101	GENERAL CHEMISTRY	Z	2	0	2
CHEM105	CHEM1105	GENERAL CHEMISTRY	Z	2	0	2
CHEMISTRY DEPARTMENT SPRING S						
Available course code	Suggested course code	Name of the course	C/E	T	A	C

CHEM110	CHEM1110	GENERAL CHEMISTRY LABORATORY	Z	0	2	1
CHEM106	CHEM1106	GENERAL CHEMISTRY	Z	2	0	2
CHEM114	CHEM1114	GENERAL CHEMISTRY	Z	4	0	4
CHEM110	CHEM1110	GENERAL CHEMISTRY LABORATORY	Z	0	2	1
CHEM106	CHEM1106	GENERAL CHEMISTRY	Z	4	0	4
CHEM110	CHEM1110	GENERAL CHEMISTRY II	Z	3	0	3
CHEM114	CHEM1114	GENERAL CHEMISTRY LABORATORY	Z	0	2	1
CHEM234	CHEM2134	ORGANIC CHEMISTRY II	Z	2	0	2
CHEM142	CHEM1142	PHYSICAL CHEMISTRY	Z	3	0	3
CHEM236	CHEM2136	ORGANIC CHEMISTRY	Z	3	0	3
CHEM112	CHEM1112	GENERAL CHEMISTRY II	Z	2	2	3
CHEM110	CHEM1110	GENERAL CHEMISTRY LABORATORY	Z	0	3	1
CHEM102	CHEM1102	GENERAL CHEMISTRY II	Z	4	0	4
CHEM120	CHEM1120	ORGANIC CHEMISTRY	Z	2	0	2
CHEM324	CHEM3124	INSTRUMENTAL ANALYSIS	Z	0	3	1
CHEM234	CHEM2134	ORGANIC CHEMISTRY II	Z	3	0	3
CHEM112	CHEM1112	GENERAL CHEMISTRY II	Z	3	0	3

DEPARTMENT OF THE FACULTY OF SCIENCE TO BE IMPLEMENTED STARTING FROM THE ACADEMIC YEAR 2025-2026

1ST YEAR

II. Semester							
ECTS	Available course code	Suggested course code	Name of the course	C/E	T	A	C
5	PHYS1012	PHYS1114	GENERAL PHYSICS II	Z	4	0	4
6	CHEM1002	CHEM1102	GENERAL CHEMISTRY II	Z	6	0	6
4	CHEM1004	CHEM1104	GENERAL CHEMISTRY LABORATORY II	Z	0	4	2
5	MATH1002	MATH1142	ANALYSIS II	Z	4	0	4
2	PHYS1006	PHYS1110	GENERAL PHYSICS LABORATORY II	Z	0	2	1
2	TRD110	TRD110	TURKISH LANGUAGE	Z	2	0	2
2	YDİ108	YDİ108	ENGLISH	Z	2	0	2
4							
4							
4							
30			Semester Total		18	6	21

2ND YEAR

IV. Semester							
ECTS	Available course code	Suggested course code	Name of the course	C/E	T	A	C
2	AİT202	AİT202	ATATÜRK PRINCIPLES AND HISTORY OF REVOLUTION	Z	2	0	2
5	CHEM2022	CHEM2122	ANALYTICAL CHEMISTRY II	Z	4	0	4
4	CHEM2024	CHEM2124	ANALYTICAL CHEMISTRY LABORATORY II	Z	0	4	2
3	CHEM2032	CHEM2132	ORGANIC CHEMISTRY II	Z	4	0	4
4	CHEM2028	CHEM2128	INORGANIC CHEMISTRY II	Z	4	0	4
3	YDİ208	CHEM208	ENGLISH	Z	2	0	2
4	CHEM2XXX	CHEM2XXX	FIELD ELECTIVE-1	S	2	0	2
2		SEC2102	SOCIAL ELECTIVE COURSE-II	S	2	0	2
3			FIELD ELECTIVE COURSE LISTS				
	CHEM2026	CHEM2126	MECHANISM OF ORGANIC REACTION	S	2	0	2
	CHEM2030	CHEM2130	RENEWABLE ENERGY SOURCES	S	2	0	2
30			Semester Total		20	4	22

3RD YEAR

VI. Semester							
ECTS	Available course code	Suggested course code	Name of the course	C/E	T	A	C
6	CHEM3024	CHEM3124	INSTRUMENTAL ANALYSIS LABORATORY	Z	0	4	2
3	CHEM3034	CHEM3134	ORGANIC CHEMISTRY LABORATORY II	Z	0	4	2
2	CHEM3042	CHEM3142	PHYSICAL CHEMISTRY II	Z	4	0	4
6	CHEM3040	CHEM3140	POLYMER CHEMISTRY	Z	3	0	3
3	CHEM3044	CHEM3144	INORGANIC CHEMISTRY LABORATORY	Z	0	4	2
4	CHEM3XXX	CHEM 3XXX	FIELD ELECTIVE 1	S	2	0	2
3	CHEM3XXX	CHEM3XXX	FIELD ELECTIVE 2	S	2	0	2
3		SEC3102	SOCIAL ELECTIVE COURSE-IV	S	2	0	2
			FIELD ELECTIVE COURSE LISTS				
	CHEM3046	CHEM3146	COMPUTATIONAL ORGANIC CHEMISTRY	S	2	0	2
	CHEM3048	CHEM3148	FORENSIC CHEMISTRY	S	2	0	2
	CHEM3004	CHEM3104	FOOD CHEMISTRY	S	2	0	2
	CHEM3012	CHEM3112	VOCATIONAL FOREIGN LANGUAGE	S	2	0	2
	CHEM3038	CHEM3138	REACTIVE INTERMEDIATES IN ORGANIC CHEMISTRY	S	2	0	2
	CHEM3060	CHEM3160	CARBONYL CHEMISTRY	S	2	0	2
	CHEM3056	CHEM3156	POLYMER TECHNOLOGY	S	2	0	2
30			Semester Total		13	12	19

4TH YEAR

VIII. Semester							
ECTS	Available course code	Suggested course code	Name of the course	C/E	T	A	C
2	CHEM4050	CHEM4150	FINAL PROJECT	Z	0	2	1
4	CHEM4064	CHEM4164	BIOCHEMISTRY LABORATORY	Z	0	4	2
4	CHEM4062	CHEM4162	BIOCHEMISTRY II	Z	4	0	4
2	CHEM4042	CHEM4142	PHYSICAL CHEMISTRY LABORATORY	Z	0	4	2
2	CHEM4044	CHEM4144	ELEKTROKİMYA	Z	2	0	2
4	CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 1	S	2	0	2
4	CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 2	S	2	0	2
4	CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 3	S	2	0	2
4	CHEM4XXX	CHEM4XXX	FIELD ELECTIVE 4	S	2	0	2
			FIELD ELECTIVE COURSE LISTS				
4	CHEM4060	CHEM4160	BIOTECHNOLOGY	S	2	0	2

4	CHEM4012	CHEM4112	VOCATIONAL FOREIGN LANGUAGE	S	2	0	2
4	CHEM4020	CHEM4120	NUCLEAR CHEMISTRY	S	2	0	2
4	CHEM4032	CHEM4132	CHEMISTRY OF DYES	S	2	0	2
4	CHEM4034	CHEM4134	TEXTILE CHEMISTRY	S	2	0	2
4	CHEM4036	CHEM4136	SOLID STATE CHEMISTRY	S	2	0	2
4	CHEM4038	CHEM4138	STEREOCHEMISTRY	S	2	0	2
4	CHEM4058	CHEM4158	TURKISH CHEMICAL INDUSTRIES	S	2	0	2
4	CHEM4022	CHEM4122	CELL AND TISSUE CULTURE PREPARATION TECHNIQUES	S	2	0	2
4	CHEM4024	CHEM4124	CLINIC BIOCHEMISTRY	S	2	0	2
30	CHEM4026	CHEM4126	NANOTECHNOLOGY	S	2	0	2
	CHEM4028	CHEM4128	TOXICOLOGY	S	2	0	2
	CHEM4030	CHEM4130	POLYMERIC NANOMATERIALS	S	2	0	2
			SEMESTER TOTAL		14	10	19

SEMESTER SERVICE COMMON COURSES

ECTS			FACULTY (DEPARTMENT)	
6			FACULTY OF ENGINEERING	
2			FACULTY OF ENGINEERING	
4			FACULTY OF SCIENCE (MOLECULAR BIOLOGY AND GENETICS)	
6			FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)	
3			FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)	
3			FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)	
4			FACULTY OF SCIENCE (MOLECULAR BIOLOGY AND GENETICS)	
5			FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)	
3			FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)	
3			FACULTY OF SCIENCE (DEPARTMENT OF BIOLOGY)	
4			FACULTY OF SCIENCE (DEPARTMENT OF PHYSICS)	
4			FACULTY OF AQUACULTURE	
2			FACULTY OF SCIENCE (DEPARTMENT OF PHYSICS)	
4			FACULTY OF SCIENCE (DEPARTMENT OF BIOLOGY)	
3			KEBAN VOCATIONAL SCHOOL (OCCUPATIONAL HEALTH AND SAFETY)	
3			KEBAN VOCATIONAL SCHOOL (GEOTECHNICS)	
3			KEBAN VOCATIONAL SCHOOL (FOOD TECHNOLOGY)	
3			KEBAN VOCATIONAL SCHOOL (ENVIRONMENTAL PROTECTION AND CONTROL)	

SEMESTER SERVICE COMMON COURSES

ECTS		FACULTY (DEPARTMENT)		
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	FACULTY OF ENGINEERING		
	FACULTY OF ENGINEERING		
	FACULTY OF TECHNOLOGY (AUTOMOTIVE)		
	FACULTY OF TECHNOLOGY (AUTOMOTIVE)		
	FACULTY OF ENGINEERING (ELECTRICAL ENGINEERING)		
	FACULTY OF SCIENCE (DEPARTMENT OF PHYSICS)		
	FACULTY OF SCIENCE DEPARTMENT OF PHYSICS)		
	FACULTY OF SCIENCE (DEPARTMENT OF BIOLOGY)		
	FACULTY OF ENGINEERING (DEPARTMENT OF MATERIALS-METALLURGY)		
	FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)		
	FACULTY OF SCIENCE (DEPARTMENT OF BIOLOGY)		
	FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)		
	FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)		
	FACULTY OF ENGINEERING (BIOENGINEERING)		
	FACULTY OF ENGINEERING (CHEMICAL ENGINEERING)		
	FACULTY OF SCIENCE (MOLECULAR BIOLOGY AND GENETICS)		
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