Major Program Chemistry Double Major Program Bioengineering

Major Program: Faculty of Humanities and Social Science / Chemistry

Double Major Program: Faculty of Engineering / Bioengineering

MATCHED COURSES

Chemistry Dep. Course (Major)						Bioengineering Dep. Matching Courses (Double Majorinor)					
No	Sem	Code	Course	Credit	ECTS	No	Sem	Code	Course	Credit	ECTS
1	1	FIZ 1319	Fizik I	4	4	1	1	PHY 1305	Physics I	3	6
2	1	MAT 1313	Matematik I	4	4	2	1	MTH 1305	Mathematics I	4	7
3	1	YDI 1121	Yabancı Dil I	2	2	3	1	ENG 1135	Professional English I	2	4
4	1	TDL 1111	Türk Dili I	2	2	4	1	TUR 1111	Turkish I	2	2
5	1	AIT 1101	Atatürk İlkeleri ve İnkılap Tarihi I	2	2	5	1	HIS 1101	Atatürk's Principles and History of Revolution I	2	2
6	1	KIM 1113	Genel Kimya I	4	4	6	1	CHE 1313	General Chemistry	3	6
7	2	FIZ 1322	Fizik II	4	4	7	2	PHY 1306	Physics II	3	6
8	2	MAT 1314	Matematik II	4	4	8	2	MTH 1306	Mathematics II	4	7
9	3	KIM 2115	Organik Kimya I	4	5	9	2	BIE 1114	Organic Chemistry	2	3
10	2	TDL 1112	Türk Dili II	2	2	10	2	TUR 1112	Turkish II	2	2
11	2	AIT 1102	Atatürk İlkeleri ve İnkılap Tarihi II	2	2	11	2	HIS 1102	Atatürk's Principles and History of Revolution II	2	2
12	2	KIM 1116	Sosyal Sorumluluk	2	2	12	3	ENG 2115	Social Responsibility Project	1	1
13	5	KIM 3125	Biokimya I	4	4	13	3	BIE 2123	Biochemistry	3	4
14	5	KIM 3127	Fizikokimya I	4	4	14	3	BIE 2129	Physical Chemistry	3	3
15	1	CBU 4403	İş Sağlığı ve Güvenliği I	2	2	15	6	CBU 4405	Job Safety and Workers' Health-I	2	2
16	2	CBU 4404	İş Sağlığı ve Güvenliği II	2	2	16	7	CBU 4406	Job Safety and Workers' Health-II	2	2
17	6	KIM 3116	Bitirme Projesi I	4	4	17	7	BIE 4111	Graduation Project I	3	4
18	1	K SEÇ 1201	Alan Dışı Seçmeli Dersler I	0	0	18	7	SEC 1000	Non-Technical Elective	2	2
				52	**53**					**45**	**65**

UNMATCHED COURSES

Chemistry Dep. Course (Major)

No	Sem	Code	Course	Credit	ECTS
1	1	K SEÇ 1111	Kimya Seçmeli 1	0	0
2	1	KIM 1103	Genel Kimya I Lab.	4	2
3	1	KIM 1109	Temel Bilgi Teknolojisi Kullanımı	2	2
4	2	K SEÇ 2222	Kimya Seçmeli 2	0	0
5	2	K SEÇ 1202	Alan Dışı Seçmeli Ders 2	0	0
6	2	KIM 1104	Genel Kimya II Lab.	2	2
7	2	YDI 1122	Yabancı Dil II	2	2
8	2	KIM 1110	Temel Bilgisayar Bilimleri	2	2
9	2	FIZ 1324	Fizik Lab	2	2
10	2	KIM 1120	Genel Kimya II	4	4
11	3	K SEÇ 2201	Kimya Seçmeli 1	0	0
12	3	KIM 2113	Analitik Kimya I	4	5
13	3	KIM 2117	Anorganik Kimya I	4	5
14	3	KIM 2119	Analitik Kimya I Lab.	4	3
15	3	KIM 2121	Organik Kimya I Lab.	4	3
16	3	KIM 2123	Anorganik Kimya I Lab.	4	3
17	4	KIM 2104	Organik Kimya II	4	5
18	4	KIM 2116	Analitik Kimya II	4	5
19	4	KIM 2118	Analitik Kimya II Lab.	4	3
20	4	KIM 2120	Organik Kimya II Lab.	4	3
21	4	KIM 2126	Anorganik Kimya II	4	5
22	4	KIM 2122	Anorganik Kimya II Lab.	4	3
23	5	KIM 3107	Fizikokimya I Lab.	4	3
24	5	KIM 3121	Enstrümantal Analiz	4	4
25	5	KIM 3123	Biyokimya I Lab.	4	3
26	6	K SEÇ 3202	Kimya Seçmeli 4	0	8
27	6	KIM 3124	Fizikokimya II	4	4
28	6	KIM 3126	Enstrümantal Analiz Lab.	4	3
29	6	KIM 3120	Fizikokimya II Lab.	4	3
30	6	KIM 3125	Biokimya II	4	4
31	6	KIM 3122	Biokimya II Lab.	4	3
32	7	K SEÇ 4201	Kimya Seçmeli 5	0	0
33	7	KIM 4107	Bitirme Projesi II	4	4
34	7	KIM 4109	Endüstriyel Kimya	4	4
35	7	KIM 4111	Endüstriyel Kimya Lab.	4	3
36	8	KIM 4106	İşletmede Mesleki Eğitim	5	30
37	5	K SEÇ 3201	Kimya Seçmeli 3	0	0
38	4	K SEÇ 2202	Kimya Seçmeli 2	0	0
39	3	PFE SEÇ 1001	Pedegojik Formasyon Eğitimi I	0	0
40	4	PFE SEÇ 1002	Pedegojik Formasyon Eğitimi II	0	0
41	5	PFE SEÇ 1003	Pedegojik Formasyon Eğitimi III	0	0
42	6	PFE SEÇ 1004	Pedegojik Formasyon Eğitimi IV	0	0
43	7	PFE SEÇ 1005	Pedegojik Formasyon Eğitimi V	0	0
				111	**135**

Bioengineering Dep. Courses (Double Major) **Given Corses**

No	Sem	Code	Course	Credit	ECTS
1	1	BIE 1111	Introduction To Bioengineering	2	2
2	1	BIE 1121	General Biology	3	4
3	2	ENG 1136	Professional English II	2	4
4	2	ENG 1100	Computer Aided Technical Drawing	3	4
5	2	ENG 1138	Engineering Mechanics	3	4
6	3	BIE 2127	General Microbiology	3	5
7	3	BIE 2125	Basic Computer Programming	3	4
8	3	MTH 2303	Differential Equations	4	7
9	4	MTH 2302	Numerical Methods in Engineering	4	6
10	4	ENG 3140	Engineering Economy	2	3
11	4	ENG 3120	Statistics	3	4
12	4	ENG 2164	Thermodynamics	3	5
13	4	ENG 2166	Fluid Mechanics	3	5
14	4	BIE 2118	Molecular Biology	3	4
15	4	BIE 2122	Biopolymers	3	3
16	5	ENG 3100	Engineering Management and Ethics	2	3
17	5	BIE 3113	Bioprocess Eng.	3	5
18	5	BIE 3117	Bioengineering Lab-I	2	4
19	5	ENG 3133	Heat Transfer	3,5	5
20	5	BIE 3003	Summer Practice I	0	5
21	5	BIE 3001	Technical Elective Courses I	6	8
22	6	BIE 3118	Bioengineering Lab II	2	5
23	6	BIE 3122	Bioreaction Engineering	3	5
24	6	BIE 3126	Biomedical Engineering and Instruments	4	6
25	6	BIE 3134	Biomechanics	3	5
26	6	ENG 3136	Mass Transfer	2	3
27	6	BIE 3002	Technical Elective Courses II	3	4
28	7	BIE 4119	Bioengineering Design	3	4
29	7	BIE 4117	Bioprocess Dynamics and Control	3	5
30	7	BIE4123	Physiology	3	4
31	7	BIE 4001	Technical Elective Courses III	3	4
32	8	BIE 4110	Vocational Training in Workplace	5	20
33	8	BIE 4122	Graduation Project II	3	10
34	3	BIE 2115	Stoichiometry	3	4
35	3	BIE 2113	Biomaterials	3	3
36	7	BIE 4101	Biotechnology and Genetic Engineering	3	5
				106,5	**181**

Major	**ECTS**
Matched Course	53
Unmatched Course	135
Total	188

Double Major	**ECTS**
Matched Course	65
Unmatched Course	181
Total	246