

Mühendislik Fakültesi

Biyomühendislik (İngilizce) - Dönemlik

Lisans - Biyomühendislik (İngilizce) - 2015 Çift Anadal Programı

Genel Toplam    Ders Adedi :34    T : 87    U : 32    Kredi : 171    ECTS : 181    T+U : 119

1. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE1000	Introduction to Bioengineering	2	0	3	3
2	CHEM1007	Basic Chemistry	4	0	6	6
3	MATH1001	Calculus I	4	0	6	6
4	PHYS1101	Physics I	3	0	4	4
5	PHYS1103	Physics Lab I	0	2	2	2
Toplam			13	2	21,00	21,00

2. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE1110	Introduction to Biomedical Engineering and Instrumentation	3	0	5	5
2	MATH1002	Calculus II	4	0	6	6
Toplam			7	0	11,00	11,00

3. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE2001	Microbiology for Bioengineers	2	2	6	6
2	BIOE2011	Bioengineering Principles	3	0	6	6
3	BIOE2113	Biochemistry for Bioengineers I	3	2	7	7
4	ECON2003	Introduction to Economics	3	0	4	4
5	MATH2055	Differential Equations	3	0	4	4
Toplam			14	4	27,00	27,00

4. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE2062	Mathematical Applications in Bioengineering Systems	2	2	6	6
2	BIOE2102	Molecular Biology and Genetics	3	2	7	7
3	BIOE2114	Biochemistry for Bioengineers II	3	2	7	7
4	STAT2052	Biostatistics	3	0	4	4
Toplam			11	6	24,00	24,00

5. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3011	Bioengineering Lab I	0	4	5	5
2	BIOE3015	Biotransport Phenomena I	3	0	5	5
3	BIOE3041	Bioreaction Engineering	3	0	6	6
4	BIOE3081	Bioengineering Thermodynamics	3	0	6	6
5	TE-1	Technical Elective - 1 (Ders 1) <small>(Bu ders TE-1 ders grubundan alınacaktır, aşağıya bakınız)</small>	3	0	3	5
Toplam			12	4	25,00	27,00

6. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3012	Bioengineering Lab II	0	4	5	5
2	BIOE3016	Biotransport Phenomena II	3	0	5	5
3	BIOE3036	Integrated Downstream Processing	3	0	5	5
4	BIOE3056	Bioprocess Dynamics and Control	3	0	5	5
5	TE-2	Technical Elective - 2 (Ders 1) <small>(Bu ders TE-2 ders grubundan alınacaktır, aşağıya bakınız)</small>	3	0	3	5
6	TE-3	Technical Elective - 3 (Ders 1) <small>(Bu ders TE-3 ders grubundan alınacaktır, aşağıya bakınız)</small>	3	0	3	5
Toplam			15	4	26,00	30,00

7. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE4191	Bioprocess Design I	3	2	7	7
2	BIOE4197	Bioengineering Project I	0	4	6	6
3	TE-4	Technical Elective - 4 (Ders 1) <small>(Bu ders TE-4 ders grubundan alınacaktır, aşağıya bakınız)</small>	3	0	3	5
4	TE-5	Technical Elective - 5 (Ders 1) <small>(Bu ders TE-5 ders grubundan alınacaktır, aşağıya bakınız)</small>	3	0	3	5
Toplam			9	6	19,00	23,00

8. YARIYIL

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE4192	Bioprocess Design II	3	2	7	7
2	BIOE4198	Bioengineering Project II	0	4	6	6
3	TE_6	Technical Elective - 6 (Ders 1) <small>(Bu ders TE_6 ders grubundan alınacaktır, aşağıya bakınız)</small>	3	0	5	5
Toplam			6	6	18,00	18,00

TE-1

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3001	Biomaterials in Bioengineering Applications	3	0	5	5
2	BIOE3002	Industrial Microbiology	3	0	5	5
3	BIOE3003	Modern Techniques in Biochemical Engineering	3	0	5	5
4	BIOE3004	Protein Interactions	3	0	5	5
5	BIOE3014	Molecular Biophysics	3	0	5	5
6	BIOE3022	Protein/Peptide Transport	3	0	5	5
7	BIOE3023	Biosystems Unit Operations	3	0	5	5
8	BIOE3026	Biomaterials and Drug Delivery	3	0	5	5
9	BIOE3031	Biochemical Regulation and Signal Transduction	3	0	5	5
10	BIOE3032	Introduction to Systems Biology	3	0	5	5
11	BIOE3033	Protein Folding	3	0	5	5
12	BIOE3034	Structural Biology	3	0	5	5
13	BIOE3050	Bioprocess Optimization	3	0	5	5
14	BIOE3051	Computer Aided Bioengineering	3	0	5	5
15	BIOE3052	Introduction to Bioinformatics	3	0	5	5
16	BIOE3053	Cellular and Metabolic Engineering	3	0	5	5

TE-2

No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3001	Biomaterials in Bioengineering Applications	3	0	5	5
2	BIOE3002	Industrial Microbiology	3	0	5	5
3	BIOE3003	Modern Techniques in Biochemical Engineering	3	0	5	5
4	BIOE3004	Protein Interactions	3	0	5	5
5	BIOE3014	Molecular Biophysics	3	0	5	5
6	BIOE3022	Protein/Peptide Transport	3	0	5	5
7	BIOE3023	Biosystems Unit Operations	3	0	5	5
8	BIOE3026	Biomaterials and Drug Delivery	3	0	5	5
9	BIOE3031	Biochemical Regulation and Signal Transduction	3	0	5	5
10	BIOE3032	Introduction to Systems Biology	3	0	5	5
11	BIOE3033	Protein Folding	3	0	5	5
12	BIOE3034	Structural Biology	3	0	5	5
13	BIOE3050	Bioprocess Optimization	3	0	5	5
14	BIOE3051	Computer Aided Bioengineering	3	0	5	5
15	BIOE3052	Introduction to Bioinformatics	3	0	5	5
16	BIOE3053	Cellular and Metabolic Engineering	3	0	5	5

**Mühendislik Fakültesi**

**Biyomühendislik (İngilizce) - Dönemlik**

**Lisans - Biyomühendislik (İngilizce) - 2015 Çift Anadal Programı**

**Genel Toplam    Ders Adedi :34    T : 87    U : 32    Kredi : 171    ECTS : 181    T+U : 119**

17	BIOE3054	Metabolic Control Analysis	3	0	5	5
18	BIOE3055	Biological Control Systems	3	0	5	5
19	BIOE3060	Bioprocess Validation and Quality Control	3	0	5	5
20	BIOE3061	Industrial and Environmental Biotechnology	3	0	5	5
21	BIOE3062	Proteomics and Mass Spectrometry	3	0	5	5
22	BIOE3065	Computational Bioengineering	3	0	5	5
23	BIOE4001	Recombinant DNA Technology	3	0	5	5
24	BIOE4012	Introduction to Protein Structure and Function	3	0	5	5
25	BIOE4013	Biomolecular Interactions	3	0	5	5
26	BIOE4014	Microbial Proteomics	3	0	5	5
27	BIOE4021	Tissue Engineering	3	0	5	5
28	BIOE4022	Downstream Processing	3	0	5	5
29	BIOE4023	Protein Engineering	3	0	5	5
30	BIOE4030	Bioconversion of Lignocellulosics	3	0	5	5
31	BIOE4031	Biosensors and Bioprocess Instrumentation	3	0	5	5
32	BIOE4032	Introduction to Biodegradable Polymers	3	0	5	5
33	BIOE4035	Reconstruction of Biological Networks	3	0	5	5
34	BIOE4040	Dynamics of Biomolecules	3	0	5	5
35	BIOE4041	Mass Spectrometry Data Analysis in Proteomics	3	0	5	5
36	BIOE4042	Enzymes in Industrial Applications	3	0	5	5
37	BIOE4052	Introduction to Computational Structural Biology	3	0	5	5
38	BIOE4053	Statistics for Bioinformatics Data Mining	3	0	5	5
39	BIOE4054	Design and Simulation of Proteins as Macromolecules	3	0	5	5
40	BIOE4055	Introduction to Machine Learning	3	0	5	5
41	BIOE4056	Plant-wide Process Control	3	0	5	5
42	BIOE4058	Nanotechnology	3	0	5	5
43	BIOE4060	Molecular Modeling	3	0	5	5
44	BIOE4061	Computational Methods in Biology	3	0	5	5
45	BIOE4062	Environmental Bioengineering	3	0	5	5
46	BIOE4063	Biomass and Biorefineries	3	0	5	5
47	BIOE4065	Biomedical Imaging and Diagnostics	3	0	5	5
48	BIOE4070	Protein Biotechnology	3	0	5	5
49	BIOE4071	Management of Bioprocess Development	3	0	5	5
50	BIOE4072	Planning and Management of Research	3	0	5	5
51	BIOE4073	Business in a Competitive Environment in Bioengineering	3	0	5	5
52	BIOE4074	Bioremediation: Principles and Practices	3	0	5	5
53	BIOE4080	Stoichiometric Modeling of Metabolic Networks	3	0	5	5
54	BIOE4081	Thermodynamics and Statistical Mechanics	3	0	5	5
55	BIOE4083	Medical Imaging	3	0	5	5
56	BIOE4093	Special Topics in Bioengineering I	3	0	5	5
57	BIOE4094	Special Topics in Bioengineering II	3	0	5	5
58	BIOE4095	Special Topics in Bioengineering III	3	0	5	5
59	BIOE4096	Special Topics in Bioengineering IV	3	0	5	5
60	DP.TE1	Exchange Program Technical Elective-1	3	0	5	5
61	DP.TE2	Exchange Program Technical Elective-2	3	0	5	5
62	DP.TE3	Exchange Program Technical Elective-3	3	0	5	5
63	DP.TE4	Exchange Program Technical Elective-4	3	0	5	5
64	DP.TE5	Exchange Program Technical Elective-5	3	0	5	5
65	DP.TE6	Exchange Program Technical Elective-6	3	0	5	5
66	DP.TE7	Exchange Program Technical Elective-7	3	0	5	5

17	BIOE3054	Metabolic Control Analysis	3	0	5	5
18	BIOE3055	Biological Control Systems	3	0	5	5
19	BIOE3060	Bioprocess Validation and Quality Control	3	0	5	5
20	BIOE3061	Industrial and Environmental Biotechnology	3	0	5	5
21	BIOE3062	Proteomics and Mass Spectrometry	3	0	5	5
22	BIOE3065	Computational Bioengineering	3	0	5	5
23	BIOE4001	Recombinant DNA Technology	3	0	5	5
24	BIOE4012	Introduction to Protein Structure and Function	3	0	5	5
25	BIOE4013	Biomolecular Interactions	3	0	5	5
26	BIOE4014	Microbial Proteomics	3	0	5	5
27	BIOE4021	Tissue Engineering	3	0	5	5
28	BIOE4022	Downstream Processing	3	0	5	5
29	BIOE4023	Protein Engineering	3	0	5	5
30	BIOE4030	Bioconversion of Lignocellulosics	3	0	5	5
31	BIOE4031	Biosensors and Bioprocess Instrumentation	3	0	5	5
32	BIOE4032	Introduction to Biodegradable Polymers	3	0	5	5
33	BIOE4035	Reconstruction of Biological Networks	3	0	5	5
34	BIOE4040	Dynamics of Biomolecules	3	0	5	5
35	BIOE4041	Mass Spectrometry Data Analysis in Proteomics	3	0	5	5
36	BIOE4042	Enzymes in Industrial Applications	3	0	5	5
37	BIOE4052	Introduction to Computational Structural Biology	3	0	5	5
38	BIOE4053	Statistics for Bioinformatics Data Mining	3	0	5	5
39	BIOE4054	Design and Simulation of Proteins as Macromolecules	3	0	5	5
40	BIOE4055	Introduction to Machine Learning	3	0	5	5
41	BIOE4056	Plant-wide Process Control	3	0	5	5
42	BIOE4058	Nanotechnology	3	0	5	5
43	BIOE4060	Molecular Modeling	3	0	5	5
44	BIOE4061	Computational Methods in Biology	3	0	5	5
45	BIOE4062	Environmental Bioengineering	3	0	5	5
46	BIOE4063	Biomass and Biorefineries	3	0	5	5
47	BIOE4065	Biomedical Imaging and Diagnostics	3	0	5	5
48	BIOE4070	Protein Biotechnology	3	0	5	5
49	BIOE4071	Management of Bioprocess Development	3	0	5	5
50	BIOE4072	Planning and Management of Research	3	0	5	5
51	BIOE4073	Business in a Competitive Environment in Bioengineering	3	0	5	5
52	BIOE4074	Bioremediation: Principles and Practices	3	0	5	5
53	BIOE4080	Stoichiometric Modeling of Metabolic Networks	3	0	5	5
54	BIOE4081	Thermodynamics and Statistical Mechanics	3	0	5	5
55	BIOE4083	Medical Imaging	3	0	5	5
56	BIOE4093	Special Topics in Bioengineering I	3	0	5	5
57	BIOE4094	Special Topics in Bioengineering II	3	0	5	5
58	BIOE4095	Special Topics in Bioengineering III	3	0	5	5
59	BIOE4096	Special Topics in Bioengineering IV	3	0	5	5
60	DP.TE1	Exchange Program Technical Elective-1	3	0	5	5
61	DP.TE2	Exchange Program Technical Elective-2	3	0	5	5
62	DP.TE3	Exchange Program Technical Elective-3	3	0	5	5
63	DP.TE4	Exchange Program Technical Elective-4	3	0	5	5
64	DP.TE5	Exchange Program Technical Elective-5	3	0	5	5
65	DP.TE6	Exchange Program Technical Elective-6	3	0	5	5
66	DP.TE7	Exchange Program Technical Elective-7	3	0	5	5

Mühendislik Fakültesi

Biyomühendislik (İngilizce) - Dönemlik

Lisans - Biyomühendislik (İngilizce) - 2015 Çift Anadal Programı

Genel Toplam

Ders Adedi :34

T : 87

U : 32

Kredi : 171

ECTS : 181

T+U : 119

TE-3						
No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3001	Biomaterials in Bioengineering Applications	3	0	5	5
2	BIOE3002	Industrial Microbiology	3	0	5	5
3	BIOE3003	Modern Techniques in Biochemical Engineering	3	0	5	5
4	BIOE3004	Protein Interactions	3	0	5	5
5	BIOE3014	Molecular Biophysics	3	0	5	5
6	BIOE3022	Protein/Peptide Transport	3	0	5	5
7	BIOE3023	Biosystems Unit Operations	3	0	5	5
8	BIOE3026	Biomaterials and Drug Delivery	3	0	5	5
9	BIOE3031	Biochemical Regulation and Signal Transduction	3	0	5	5
10	BIOE3032	Introduction to Systems Biology	3	0	5	5
11	BIOE3033	Protein Folding	3	0	5	5
12	BIOE3034	Structural Biology	3	0	5	5
13	BIOE3050	Bioprocess Optimization	3	0	5	5
14	BIOE3051	Computer Aided Bioengineering	3	0	5	5
15	BIOE3052	Introduction to Bioinformatics	3	0	5	5
16	BIOE3053	Cellular and Metabolic Engineering	3	0	5	5
17	BIOE3054	Metabolic Control Analysis	3	0	5	5
18	BIOE3055	Biological Control Systems	3	0	5	5
19	BIOE3060	Bioprocess Validation and Quality Control	3	0	5	5
20	BIOE3061	Industrial and Environmental Biotechnology	3	0	5	5
21	BIOE3062	Proteomics and Mass Spectrometry	3	0	5	5
22	BIOE3065	Computational Bioengineering	3	0	5	5
23	BIOE4001	Recombinant DNA Technology	3	0	5	5
24	BIOE4012	Introduction to Protein Structure and Function	3	0	5	5
25	BIOE4013	Biomolecular Interactions	3	0	5	5
26	BIOE4014	Microbial Proteomics	3	0	5	5
27	BIOE4021	Tissue Engineering	3	0	5	5
28	BIOE4022	Downstream Processing	3	0	5	5
29	BIOE4023	Protein Engineering	3	0	5	5
30	BIOE4030	Bioconversion of Lignocellulosics	3	0	5	5
31	BIOE4031	Biosensors and Bioprocess Instrumentation	3	0	5	5
32	BIOE4032	Introduction to Biodegradable Polymers	3	0	5	5
33	BIOE4035	Reconstruction of Biological Networks	3	0	5	5
34	BIOE4040	Dynamics of Biomolecules	3	0	5	5
35	BIOE4041	Mass Spectrometry Data Analysis in Proteomics	3	0	5	5
36	BIOE4042	Enzymes in Industrial Applications	3	0	5	5
37	BIOE4052	Introduction to Computational Structural Biology	3	0	5	5
38	BIOE4053	Statistics for Bioinformatics Data Mining	3	0	5	5
39	BIOE4054	Design and Simulation of Proteins as Macromolecules	3	0	5	5
40	BIOE4055	Introduction to Machine Learning	3	0	5	5
41	BIOE4056	Plant-wide Process Control	3	0	5	5
42	BIOE4058	Nanotechnology	3	0	5	5
43	BIOE4060	Molecular Modeling	3	0	5	5
44	BIOE4061	Computational Methods in Biology	3	0	5	5
45	BIOE4062	Environmental Bioengineering	3	0	5	5
46	BIOE4063	Biomass and Biorefineries	3	0	5	5
47	BIOE4065	Biomedical Imaging and Diagnostics	3	0	5	5
48	BIOE4070	Protein Biotechnology	3	0	5	5
49	BIOE4071	Management of Bioprocess Development	3	0	5	5
50	BIOE4072	Planning and Management of Research	3	0	5	5

TE-4						
No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3001	Biomaterials in Bioengineering Applications	3	0	5	5
2	BIOE3002	Industrial Microbiology	3	0	5	5
3	BIOE3003	Modern Techniques in Biochemical Engineering	3	0	5	5
4	BIOE3004	Protein Interactions	3	0	5	5
5	BIOE3014	Molecular Biophysics	3	0	5	5
6	BIOE3022	Protein/Peptide Transport	3	0	5	5
7	BIOE3023	Biosystems Unit Operations	3	0	5	5
8	BIOE3026	Biomaterials and Drug Delivery	3	0	5	5
9	BIOE3031	Biochemical Regulation and Signal Transduction	3	0	5	5
10	BIOE3032	Introduction to Systems Biology	3	0	5	5
11	BIOE3033	Protein Folding	3	0	5	5
12	BIOE3034	Structural Biology	3	0	5	5
13	BIOE3050	Bioprocess Optimization	3	0	5	5
14	BIOE3051	Computer Aided Bioengineering	3	0	5	5
15	BIOE3052	Introduction to Bioinformatics	3	0	5	5
16	BIOE3053	Cellular and Metabolic Engineering	3	0	5	5
17	BIOE3054	Metabolic Control Analysis	3	0	5	5
18	BIOE3055	Biological Control Systems	3	0	5	5
19	BIOE3060	Bioprocess Validation and Quality Control	3	0	5	5
20	BIOE3061	Industrial and Environmental Biotechnology	3	0	5	5
21	BIOE3062	Proteomics and Mass Spectrometry	3	0	5	5
22	BIOE3065	Computational Bioengineering	3	0	5	5
23	BIOE4001	Recombinant DNA Technology	3	0	5	5
24	BIOE4012	Introduction to Protein Structure and Function	3	0	5	5
25	BIOE4013	Biomolecular Interactions	3	0	5	5
26	BIOE4014	Microbial Proteomics	3	0	5	5
27	BIOE4021	Tissue Engineering	3	0	5	5
28	BIOE4022	Downstream Processing	3	0	5	5
29	BIOE4023	Protein Engineering	3	0	5	5
30	BIOE4030	Bioconversion of Lignocellulosics	3	0	5	5
31	BIOE4031	Biosensors and Bioprocess Instrumentation	3	0	5	5
32	BIOE4032	Introduction to Biodegradable Polymers	3	0	5	5
33	BIOE4035	Reconstruction of Biological Networks	3	0	5	5
34	BIOE4040	Dynamics of Biomolecules	3	0	5	5
35	BIOE4041	Mass Spectrometry Data Analysis in Proteomics	3	0	5	5
36	BIOE4042	Enzymes in Industrial Applications	3	0	5	5
37	BIOE4052	Introduction to Computational Structural Biology	3	0	5	5
38	BIOE4053	Statistics for Bioinformatics Data Mining	3	0	5	5
39	BIOE4054	Design and Simulation of Proteins as Macromolecules	3	0	5	5
40	BIOE4055	Introduction to Machine Learning	3	0	5	5
41	BIOE4056	Plant-wide Process Control	3	0	5	5
42	BIOE4058	Nanotechnology	3	0	5	5
43	BIOE4060	Molecular Modeling	3	0	5	5
44	BIOE4061	Computational Methods in Biology	3	0	5	5
45	BIOE4062	Environmental Bioengineering	3	0	5	5
46	BIOE4063	Biomass and Biorefineries	3	0	5	5
47	BIOE4065	Biomedical Imaging and Diagnostics	3	0	5	5
48	BIOE4070	Protein Biotechnology	3	0	5	5
49	BIOE4071	Management of Bioprocess Development	3	0	5	5
50	BIOE4072	Planning and Management of Research	3	0	5	5

**Mühendislik Fakültesi**

**Biyomühendislik (İngilizce) - Dönemlik**

**Lisans - Biyomühendislik (İngilizce) - 2015 Çift Anadal Programı**

**Genel Toplam    Ders Adedi :34    T : 87    U : 32    Kredi : 171    ECTS : 181    T+U : 119**

51	BIOE4073	Business in a Competitive Environment in Bioengineering	3	0	5	5
52	BIOE4074	Bioremediation: Principles and Practices	3	0	5	5
53	BIOE4080	Stoichiometric Modeling of Metabolic Networks	3	0	5	5
54	BIOE4081	Thermodynamics and Statistical Mechanics	3	0	5	5
55	BIOE4083	Medical Imaging	3	0	5	5
56	BIOE4093	Special Topics in Bioengineering I	3	0	5	5
57	BIOE4094	Special Topics in Bioengineering II	3	0	5	5
58	BIOE4095	Special Topics in Bioengineering III	3	0	5	5
59	BIOE4096	Special Topics in Bioengineering IV	3	0	5	5
60	DP.TE1	Exchange Program Technical Elective-1	3	0	5	5
61	DP.TE2	Exchange Program Technical Elective-2	3	0	5	5
62	DP.TE3	Exchange Program Technical Elective-3	3	0	5	5
63	DP.TE4	Exchange Program Technical Elective-4	3	0	5	5
64	DP.TE5	Exchange Program Technical Elective-5	3	0	5	5
65	DP.TE6	Exchange Program Technical Elective-6	3	0	5	5
66	DP.TE7	Exchange Program Technical Elective-7	3	0	5	5

51	BIOE4073	Business in a Competitive Environment in Bioengineering	3	0	5	5
52	BIOE4074	Bioremediation: Principles and Practices	3	0	5	5
53	BIOE4080	Stoichiometric Modeling of Metabolic Networks	3	0	5	5
54	BIOE4081	Thermodynamics and Statistical Mechanics	3	0	5	5
55	BIOE4083	Medical Imaging	3	0	5	5
56	BIOE4093	Special Topics in Bioengineering I	3	0	5	5
57	BIOE4094	Special Topics in Bioengineering II	3	0	5	5
58	BIOE4095	Special Topics in Bioengineering III	3	0	5	5
59	BIOE4096	Special Topics in Bioengineering IV	3	0	5	5
60	DP.TE1	Exchange Program Technical Elective-1	3	0	5	5
61	DP.TE2	Exchange Program Technical Elective-2	3	0	5	5
62	DP.TE3	Exchange Program Technical Elective-3	3	0	5	5
63	DP.TE4	Exchange Program Technical Elective-4	3	0	5	5
64	DP.TE5	Exchange Program Technical Elective-5	3	0	5	5
65	DP.TE6	Exchange Program Technical Elective-6	3	0	5	5
66	DP.TE7	Exchange Program Technical Elective-7	3	0	5	5

<b>TE-5</b>						
No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3001	Biomaterials in Bioengineering Applications	3	0	5	5
2	BIOE3002	Industrial Microbiology	3	0	5	5
3	BIOE3003	Modern Techniques in Biochemical Engineering	3	0	5	5
4	BIOE3004	Protein Interactions	3	0	5	5
5	BIOE3014	Molecular Biophysics	3	0	5	5
6	BIOE3022	Protein/Peptide Transport	3	0	5	5
7	BIOE3023	Biosystems Unit Operations	3	0	5	5
8	BIOE3026	Biomaterials and Drug Delivery	3	0	5	5
9	BIOE3031	Biochemical Regulation and Signal Transduction	3	0	5	5
10	BIOE3032	Introduction to Systems Biology	3	0	5	5
11	BIOE3033	Protein Folding	3	0	5	5
12	BIOE3034	Structural Biology	3	0	5	5
13	BIOE3050	Bioprocess Optimization	3	0	5	5
14	BIOE3051	Computer Aided Bioengineering	3	0	5	5
15	BIOE3052	Introduction to Bioinformatics	3	0	5	5
16	BIOE3053	Cellular and Metabolic Engineering	3	0	5	5
17	BIOE3054	Metabolic Control Analysis	3	0	5	5
18	BIOE3055	Biological Control Systems	3	0	5	5
19	BIOE3060	Bioprocess Validation and Quality Control	3	0	5	5
20	BIOE3061	Industrial and Environmental Biotechnology	3	0	5	5
21	BIOE3062	Proteomics and Mass Spectrometry	3	0	5	5
22	BIOE3065	Computational Bioengineering	3	0	5	5
23	BIOE4001	Recombinant DNA Technology	3	0	5	5
24	BIOE4012	Introduction to Protein Structure and Function	3	0	5	5
25	BIOE4013	Biomolecular Interactions	3	0	5	5
26	BIOE4014	Microbial Proteomics	3	0	5	5
27	BIOE4021	Tissue Engineering	3	0	5	5
28	BIOE4022	Downstream Processing	3	0	5	5
29	BIOE4023	Protein Engineering	3	0	5	5
30	BIOE4030	Bioconversion of Lignocellulosics	3	0	5	5
31	BIOE4031	Biosensors and Bioprocess Instrumentation	3	0	5	5
32	BIOE4032	Introduction to Biodegradable Polymers	3	0	5	5

<b>TE_6</b>						
No	Ders Kodu	Ders Adı	T	U	Kredi	ECTS
1	BIOE3001	Biomaterials in Bioengineering Applications	3	0	5	5
2	BIOE3002	Industrial Microbiology	3	0	5	5
3	BIOE3003	Modern Techniques in Biochemical Engineering	3	0	5	5
4	BIOE3004	Protein Interactions	3	0	5	5
5	BIOE3014	Molecular Biophysics	3	0	5	5
6	BIOE3022	Protein/Peptide Transport	3	0	5	5
7	BIOE3023	Biosystems Unit Operations	3	0	5	5
8	BIOE3026	Biomaterials and Drug Delivery	3	0	5	5
9	BIOE3031	Biochemical Regulation and Signal Transduction	3	0	5	5
10	BIOE3032	Introduction to Systems Biology	3	0	5	5
11	BIOE3033	Protein Folding	3	0	5	5
12	BIOE3034	Structural Biology	3	0	5	5
13	BIOE3050	Bioprocess Optimization	3	0	5	5
14	BIOE3051	Computer Aided Bioengineering	3	0	5	5
15	BIOE3052	Introduction to Bioinformatics	3	0	5	5
16	BIOE3053	Cellular and Metabolic Engineering	3	0	5	5
17	BIOE3054	Metabolic Control Analysis	3	0	5	5
18	BIOE3055	Biological Control Systems	3	0	5	5
19	BIOE3060	Bioprocess Validation and Quality Control	3	0	5	5
20	BIOE3061	Industrial and Environmental Biotechnology	3	0	5	5
21	BIOE3062	Proteomics and Mass Spectrometry	3	0	5	5
22	BIOE3065	Computational Bioengineering	3	0	5	5
23	BIOE4001	Recombinant DNA Technology	3	0	5	5
24	BIOE4012	Introduction to Protein Structure and Function	3	0	5	5
25	BIOE4013	Biomolecular Interactions	3	0	5	5
26	BIOE4014	Microbial Proteomics	3	0	5	5
27	BIOE4021	Tissue Engineering	3	0	5	5
28	BIOE4022	Downstream Processing	3	0	5	5
29	BIOE4023	Protein Engineering	3	0	5	5
30	BIOE4030	Bioconversion of Lignocellulosics	3	0	5	5
31	BIOE4031	Biosensors and Bioprocess Instrumentation	3	0	5	5
32	BIOE4032	Introduction to Biodegradable Polymers	3	0	5	5

Mühendislik Fakültesi

Biyomühendislik (İngilizce) - Dönemlik

Lisans - Biyomühendislik (İngilizce) - 2015 Çift Anadal Programı

Genel Toplam

Ders Adedi :34

T : 87

U : 32

Kredi : 171

ECTS : 181

T+U : 119

33	BIOE4035	Reconstruction of Biological Networks	3	0	5	5
34	BIOE4040	Dynamics of Biomolecules	3	0	5	5
35	BIOE4041	Mass Spectrometry Data Analysis in Proteomics	3	0	5	5
36	BIOE4042	Enzymes in Industrial Applications	3	0	5	5
37	BIOE4052	Introduction to Computational Structural Biology	3	0	5	5
38	BIOE4053	Statistics for Bioinformatics Data Mining	3	0	5	5
39	BIOE4054	Design and Simulation of Proteins as Macromolecules	3	0	5	5
40	BIOE4055	Introduction to Machine Learning	3	0	5	5
41	BIOE4056	Plant-wide Process Control	3	0	5	5
42	BIOE4058	Nanotechnology	3	0	5	5
43	BIOE4060	Molecular Modeling	3	0	5	5
44	BIOE4061	Computational Methods in Biology	3	0	5	5
45	BIOE4062	Environmental Bioengineering	3	0	5	5
46	BIOE4063	Biomass and Biorefineries	3	0	5	5
47	BIOE4065	Biomedical Imaging and Diagnostics	3	0	5	5
48	BIOE4070	Protein Biotechnology	3	0	5	5
49	BIOE4071	Management of Bioprocess Development	3	0	5	5
50	BIOE4072	Planning and Management of Research	3	0	5	5
51	BIOE4073	Business in a Competitive Environment in Bioengineering	3	0	5	5
52	BIOE4074	Bioremediation: Principles and Practices	3	0	5	5
53	BIOE4080	Stoichiometric Modeling of Metabolic Networks	3	0	5	5
54	BIOE4081	Thermodynamics and Statistical Mechanics	3	0	5	5
55	BIOE4083	Medical Imaging	3	0	5	5
56	BIOE4093	Special Topics in Bioengineering I	3	0	5	5
57	BIOE4094	Special Topics in Bioengineering II	3	0	5	5
58	BIOE4095	Special Topics in Bioengineering III	3	0	5	5
59	BIOE4096	Special Topics in Bioengineering IV	3	0	5	5
60	DP.TE1	Exchange Program Technical Elective-1	3	0	5	5
61	DP.TE2	Exchange Program Technical Elective-2	3	0	5	5
62	DP.TE3	Exchange Program Technical Elective-3	3	0	5	5
63	DP.TE4	Exchange Program Technical Elective-4	3	0	5	5
64	DP.TE5	Exchange Program Technical Elective-5	3	0	5	5
65	DP.TE6	Exchange Program Technical Elective-6	3	0	5	5
66	DP.TE7	Exchange Program Technical Elective-7	3	0	5	5

33	BIOE4035	Reconstruction of Biological Networks	3	0	5	5
34	BIOE4040	Dynamics of Biomolecules	3	0	5	5
35	BIOE4041	Mass Spectrometry Data Analysis in Proteomics	3	0	5	5
36	BIOE4042	Enzymes in Industrial Applications	3	0	5	5
37	BIOE4052	Introduction to Computational Structural Biology	3	0	5	5
38	BIOE4053	Statistics for Bioinformatics Data Mining	3	0	5	5
39	BIOE4054	Design and Simulation of Proteins as Macromolecules	3	0	5	5
40	BIOE4055	Introduction to Machine Learning	3	0	5	5
41	BIOE4056	Plant-wide Process Control	3	0	5	5
42	BIOE4058	Nanotechnology	3	0	5	5
43	BIOE4060	Molecular Modeling	3	0	5	5
44	BIOE4061	Computational Methods in Biology	3	0	5	5
45	BIOE4062	Environmental Bioengineering	3	0	5	5
46	BIOE4063	Biomass and Biorefineries	3	0	5	5
47	BIOE4065	Biomedical Imaging and Diagnostics	3	0	5	5
48	BIOE4070	Protein Biotechnology	3	0	5	5
49	BIOE4071	Management of Bioprocess Development	3	0	5	5
50	BIOE4072	Planning and Management of Research	3	0	5	5
51	BIOE4073	Business in a Competitive Environment in Bioengineering	3	0	5	5
52	BIOE4074	Bioremediation: Principles and Practices	3	0	5	5
53	BIOE4080	Stoichiometric Modeling of Metabolic Networks	3	0	5	5
54	BIOE4081	Thermodynamics and Statistical Mechanics	3	0	5	5
55	BIOE4083	Medical Imaging	3	0	5	5
56	BIOE4093	Special Topics in Bioengineering I	3	0	5	5
57	BIOE4094	Special Topics in Bioengineering II	3	0	5	5
58	BIOE4095	Special Topics in Bioengineering III	3	0	5	5
59	BIOE4096	Special Topics in Bioengineering IV	3	0	5	5
60	DP.TE1	Exchange Program Technical Elective-1	3	0	5	5
61	DP.TE2	Exchange Program Technical Elective-2	3	0	5	5
62	DP.TE3	Exchange Program Technical Elective-3	3	0	5	5
63	DP.TE4	Exchange Program Technical Elective-4	3	0	5	5
64	DP.TE5	Exchange Program Technical Elective-5	3	0	5	5
65	DP.TE6	Exchange Program Technical Elective-6	3	0	5	5
66	DP.TE7	Exchange Program Technical Elective-7	3	0	5	5