



Program Information Form

Program Name	Bachelor Programme in Bioengineering (%100 English)
Academic Unit	Department of Bioengineering
Type	Undergraduate Major Program - English
Level Of Qualification	This is a First Cycle (Bachelor's Degree) Program
Qualification Awarded	The students who successfully complete the program are awarded the degree of Bachelor of Science (B.S.) in Bachelor Programme in Bioengineering (%100 English)
Mode Of Study	Full-Time
Programme Director	Mehmet Burçin Pişkin
Specific Admission Requirements	Those who want to enroll in YTU undergraduate degree programs must get the sufficient score required by YTU from the exam administered by the Student Selection and Placement Center (OSYM) and should not have an existing enrollment in another higher education program. The rules and regulations in "Directive On Application and Registration of Foreign Students" are applied to the students from abroad who want to enroll in this program. The students who qualify to enroll in undergraduate degree programs whose medium of instruction is 30% English have to take English Proficiency Exam. "Directive on Instruction and Examination, School of Foreign Languages (YDYO)-YTU" and other regulations apply to English Proficiency Exam and Preparatory English Courses, except for the Foreign Languages Department English Language Teaching Program.
Specific Arrangements For Recognition Of Prior Learning	Admissions to YTU undergraduate programs via transfers from outside YTU are conducted as per the principles determined by the Senate within the framework of the provisions of the Rules and Regulations on the Principles of Transfers between Associate and Bachelor's Degree Programs at Higher Education Institutions, Double Major, Double Minor and Credit Transfers Between Higher Education Institutions published in the Official Gazette No.27561 of 24/4/2010. Procedures for the students placed in this programs through the Vertical Transfer Exam held by the Student Selection and Placement Center (OSYM) are to be carried out pursuant to the rules and principles stipulated in the Regulation on Transfer of the Students graduated from Vocational Schools and Open University Associate Degrees to the Undergraduate Education published in the Official Gazette No.24676 of 19/2/2002.
Qualification Requirements And Regulations	The undergraduate students in this program must be successful in all of the courses with a minimum achievement grade of DC, must have completed at least 240 ECTS credits and have scored a minimum CGPA of 2.00/4.00. At the same time, the students must complete their compulsory internship within the designated period of time and within the scope of necessary qualifications.
Profile Of The Programme	Bioengineering, medicine and life sciences and engineering problems, from the perspective of a multidisciplinary solution using the principles of the basic sciences, engineering science developments in different areas, using new techniques and tools aiming to improving the quality of life of people in a specific branch of engineering.
Occupational Profiles Of Graduates With Examples	Graduated students can find job in our or foreign country's industrial sector, mainly, various public and private institutions as bioengineer.
Access To Further Studies	The graduates of this program can apply to master programs to enhance their academic skills and career.

Assessment of Success

a) In assessing a student's performance in a course, the grade the student has scored during the semester work over a hundred and the grade the student has scored at the end of the semester over a hundred are taken into consideration.

b) In measuring success, the weight of the grade during the semester is 60% and the weight of the final exam is 40%.

Achievement Grade

(1) In determining a grade, relative evaluation system is used. Achievement Grade is designated as follows:

a) The meanings of the achievement grades are defined as follows:

Achievement Grade	Coefficient	Achievement Degree
AA	4.00	Excellent
BA	3.50	Very good
BB	3.00	Good
CB	2.50	Average
CC	2.00	Satisfactory
DC	1.50	Provisionally Successful
DD	1.00	Fail
FD	0.50	Fail
FF	0.00	Fail
F0	0.00	NA

G: Pass K: Fail İ: Leave of Absence M: Exemption E: Incomplete

2) (DC) indicates that the student has been provisionally successful in a course. For a student to be considered successful in a course, he must have a minimum GPA of 2.0. If a student has courses in which he has been provisionally successful in his instructional plan, he must have a minimum GPA of 2.0 to qualify for graduation. And, this course is included in his GPA.

3) G (Pass) indicates that the student has been successful/satisfactory in a course and not included in his GPA.

4) K (Fail) indicates that the student has been unsuccessful/unsatisfactory in a course and not included in his GPA.

5) İ (Leave of Absence) indicates that the student has been unable to complete the requirements of a course because of sickness or some other valid reason

pursuant to the relevant provision of this Regulation and is not included in GPA until it is transformed into an achievement grade. If this course is not completed the following semester in which the course is available, it automatically turns into an FF.

6) M (Exemption) indicates that the student have exemption for the previous program courses which are deemed equivalent to the courses offered in their new undergraduate program. Decision for the course exemption is made by the relevant faculty committee. The courses that student is exempt from are processed as a non-credit exemption and they are not included in the student's GPA.

Make-up, Resit and Graduation Exams

(1) A make-up exam is administered in place of a mid-term exam. In case of multiple make-up exams, the student can only sit in one of these exams. The provisions stipulated by the Senate apply to whether a student can sit in a make-up exam or how to administer a make-up exam. A make-up exam for the exams at the end of the semester won't be allowed.

(2) The provisions regarding resit exams are as follows:

a) For a student to be able to sit in a resit exam, he must have added the course at the beginning of the semester and must have fulfilled the requirements to be able to take this exam at the end of the semester. Students who have missed a resit exam cannot have a make-up exam for it.

b) Students who have been unsuccessful or provisionally successful (not F0) can sit in resit exams. The score in a resit exam is considered a final at the end of the semester. An achievement grade is assigned at the end of a resit exam by taking the percentages of visas, assignments and the resit exam into consideration.

c) A student who have missed a resit exam gets E (Incomplete) and remains as the achievement grade of the course. The resit achievement grades are included in semester grade average points.

(3) The provisions regarding graduation exams are as follows:

a) To be able to sit in a graduation exam, a student must have fulfilled the requirements to take the final exam at the end of the semester. The students who haven't qualified for a graduation exam can't sit in a make-up exam for this exam.

b) The students who have to pass a maximum of two courses before their graduation are granted a graduation exam for the classes they have failed after the resit exam and within the period stated in the academic calendar. The students who are unable to graduate due to their GPA below 2.00 can take a graduation exam in two courses in which they have been provisionally successful.

c) To be considered successful in a graduation exam, a student must get at least a CC. The grade taken in the exam takes the place of the achievement grade of the course. Visas and assignments aren't included in the assessment.

Graduation Requirements

To be able to qualify for graduation, students must complete all the courses in the instructional plan, assignments, field work, applied projects, assignments, workshops, seminars, attendance, laboratory work and other related activities with a minimum CGPA of 2.00.

Program Outcomes

1	PO-1.1) Adequate knowledge of subjects such as Mathematics and Science.
2	PO-1.2) Adequate knowledge of subjects specific to the engineering discipline.
3	PO-1.3) Ability to use theoretical and applied knowledge in these fields in solving complex engineering problems.
4	PO-2.1) An ability to identify, define, formulate, and solve complex engineering problems
5	PO-2.2) An ability to select and apply appropriate analysis and modeling methods for this purpose.
6	PO-3.1) Ability to design a complex system, process, device or product to meet specific requirements under realistic constraints and conditions.
7	PO-3.2) An ability to apply modern design methods for this purpose.
8	PO-4.1) Ability to develop, select and use modern techniques and tools necessary for the analysis and solution of complex problems encountered in engineering applications.
9	PO-4.2) An ability to use information technologies effectively.
10	PO-5.1) An ability to design experiments to study complex engineering problems or discipline-specific research topics.
11	PO-5.2) Ability to conduct experiments to investigate complex engineering problems or discipline-specific research topics.
12	PO-5.3) Ability to collect data to examine complex engineering problems or discipline-specific research topics.
13	PO-5.4) An ability to analyze and interpret results for the study of complex engineering problems or discipline-specific research topics.
14	PO-6.1) Ability to work individually within the discipline.
15	PO-6.2) Ability to work effectively in disciplinary teams.
16	PO-6.3) Ability to work effectively in multidisciplinary teams.
17	PO-7.1) An ability to communicate effectively, both orally and in writing.
18	PO-7.2) Knowledge of at least one foreign language.
19	PO-7.3) Ability to write effective reports and understand written reports.
20	PO-7.4) Ability to prepare design and production reports.
21	PO-7.5) Ability to give clear and understandable instructions.
22	PO-8.1) Awareness of the necessity of lifelong learning.
23	PO-8.2) Ability to constantly renew itself, access information and follow the developments in science and technology.
24	PO-9.1) Behaving in accordance with ethical principles, awareness of professional and ethical responsibility.
25	PO-9.2) To gain knowledge about the standards used in engineering applications.
26	PO-10.1) Information on business practices such as project management, risk management and change management.
27	PO-10.2) Awareness of entrepreneurship and innovation.
28	PO-10.3) Information on sustainable development.
29	PO-11.1) Universal and social health, environment and safety of engineering applications information about the effects on the problems and the problems reflected in the engineering field of the era.
30	PO-11.2) Awareness of the legal consequences of engineering solutions.

Curriculum

1. Year - Fall Semester

Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM1201		Introduction To Bioengineering	2	0	0	2	4
FIZ1001		Physics 1	3	0	2	4	6
KIM1170		General Chemistry	3	0	2	4	6
MAT1071		Mathematics 1	3	2	0	4	6
MDB1031		Advanced English 1	3	0	0	3	3
TDB1031		Turkish Language 1	2	0	0	0	2
USS-1G		University Social Elective 1-1	3	0	0	3	3
Total:							30

1. Year - Spring Semester

Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM1512		Organic Chemistry for Engineers	3	0	0	3	5
BYM1172		Basic Computer Sciences	2	2	0	3	4
FIZ1002		Physics 2	3	0	2	4	6
MAT1072		Mathematics 2	3	2	0	4	6
MDB1032		Advanced English 2	3	0	0	3	3
TDB1032		Turkish language 2	2	0	0	0	2
BYM1522		Probability and Statistics	3	0	0	3	4
Total:							30

2. Year - Fall Semester

Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
ATA1031		Principles of Atatürk and History of Modern Turkey 1	2	0	0	0	2
BYM2131		Occupational Health and Safety 1	2	0	0	2	2
BYM2101		Basic Principles of Molecular Biology	3	0	0	3	6
BYM2321		Biochemistry in Bioengineering	4	0	0	4	6
BYM2071		Mass and Energy Balances	3	0	0	3	5
MAT2411		Differential Equations	4	0	0	4	6
USS-2G		University Social Elective-2	3	0	0	3	3
Total:							30

2. Year - Spring Semester

Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
ATA1032		Principles of Atatürk and History of Modern Turkey 2	2	0	0	0	2
BYM2132		Occupational Health and Safety 2	2	0	0	2	2
BYM2002		Intern 1	0	0	0	0	2
BYM2712		Biothermodynamics	2	2	0	3	4

BYM2222		Cell Biology and Cellular Mechanisms	2	0	2	3	5	
BYM2812		Fluid Mechanics in Bioengineering	3	0	0	3	3	
MDB3032		Business English	2	0	0	2	2	
MES1-2B		Occupational Elective 1-1	3	0	0	3	5	
MES1-2B		Occupational Elective 1-2	3	0	0	3	5	
							Total:	30
3. Year - Fall Semester								
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS	
BYM3401		Separation Processes in Bioengineering	2	0	2	3	5	
BYM3511		Genetics Engineering	2	0	2	3	4	
BYM3921		Heat and Mass Transfer in Bioengineering	4	0	0	4	4	
BYM3501		Entrepreneurship and Project Management	2	0	0	2	4	
BYM3031		Biomaterials	3	0	0	3	3	
MES2-3G		Occupational Elective 2-1	3	0	0	3	5	
MES2-3G		Occupational Elective 2-2	3	0	0	3	5	
							Total:	30
3. Year - Spring Semester								
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS	
BYM3002		Intern 2	0	0	0	0	3	
BYM3132		Mathematical Modelling in Bioengineering	2	2	0	3	4	
BYM3222	<input checked="" type="checkbox"/>	Bioengineering Laboratory 1	0	0	4	2	5	
	Önk:	BYM3921, BYM2812						
BYM3302	<input checked="" type="checkbox"/>	Introduction to Design in Bioengineering	2	2	0	3	5	
	Önk:	BYM3921						
BYM3782		Bioreactor Design	3	0	0	3	3	
BYM3192		Physiology	3	0	0	3	5	
MES3-3B		Occupational Elective 3-1	3	0	0	3	5	
							Total:	30
4. Year - Fall Semester								
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS	
BYM4211		Tissue Engineering	3	0	0	3	4	
BYM4231		Bioengineering Laboratory 2	0	0	4	2	5	
BYM4741	<input checked="" type="checkbox"/>	Bioprocess Engineering	3	0	0	3	6	
	Önk:	BYM3302						
BYM4381		Immunology	3	0	0	3	5	
MES4-4G		Occupational Elective 4-1	3	0	0	3	5	
UMS-4G		University Occupational Elective	3	0	0	3	5	
							Total:	30
4. Year - Spring Semester								

Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM4000		Graduation Thesis	0	8	0	4	10
MES5-4B		Occupational Elective 5-1*	3	0	0	3	5
MES5-4B		Occupational Elective 5-2*	3	0	0	3	5
MES5-4B		Occupational Elective 5-3*	3	0	0	3	5
MES5-4B		Occupational Elective 5-4*	3	0	0	3	5
Total:							30
Program Total ECTS:							240
Occupational Elective 1 Courses (MES1)							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM2202		Polymer Science and Technology	3	0	0	3	5
BYM2312		Introduction to Modern Biology	3	0	0	3	5
BYM2332		Microbiology in Bioengineering	3	0	0	3	5
BYM2412		Vocational English in Bioengineering	3	0	0	3	5
BYM2612		Enzyme Technology	3	0	0	3	5
Occupational Elective 2 Courses (MES2)							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM3321		Cell Culture Systems	3	0	0	3	5
BYM3531		Biomedical Electronics	3	0	0	3	5
BYM3601		Biosensors	3	0	0	3	5
BYM3361		Concepts of Genetics	3	0	0	3	5
BYM3521		Bioinstrumental Techniques	3	0	0	3	5
Occupational Elective 3 Courses (MES3)							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM3362		Principles of Systems Biology	3	0	0	3	5
BYM3652		Fundamentals of Biopolymers	3	0	0	3	5
BYM3232		Modern Techn. in Molecular Biology	3	0	0	3	5
BYM3322		Controlled Release Systems	3	0	0	3	5
Occupational Elective 4 Courses (MES4)							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM4701		Introduction to Bioceramics	3	0	0	3	5
BYM4691		Biochemical Engineering	3	0	0	3	5
BYM4101		Data Analysis and Visualization	3	0	0	3	5
BYM4801		Artificial Organs	3	0	0	3	5
Occupational Elective 5 Courses (MES5)							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
BYM4602		Biomedical Physics	3	0	0	3	5
BYM4672		Biotransport	3	0	0	3	5

BYM4472		Process Dynamics and Control in Bioengineering	3	0	0	3	5
BYM4412		Biophysics in Bioengineering	3	0	0	3	5
BYM4292		Bioengineering Economy	3	0	0	3	5
BYM4222		Technical Drawing in Bioengineering	3	0	0	3	5
BYM4502		Virology	3	0	0	3	5
BYM4662		Biomedical Materials	3	0	0	3	5
BYM4452		Biotechnology and Biosafety	3	0	0	3	5
BYM4852	<input checked="" type="checkbox"/>	Enviromental Microbiology	3	0	0	3	5
	Önk:	BYM2332					
BYM4962		Cooperative Education In Business 1	3	0	0	3	5
BYM4972		Cooperative Education In Business 2	3	0	0	3	5
BYM4982		Cooperative Education In Business 3	3	0	0	3	5
BYM4992		Cooperative Education In Business 4	3	0	0	3	5
University Social Elective Courses							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
ITB3220		Modernity and Consumer Society	3	0	0	3	3
ITB3130		Political Ideologies: Theory and History	3	0	0	3	3
ITB2080		Women in Social Transformation	3	0	0	3	3
ISL2170		Accounting Organization	3	0	0	3	3
ITB3010		Sociology	3	0	0	3	3
ITB3550		Human Rights	3	0	0	3	3
ITB3560		Political Philosophy	3	0	0	3	3
ITB3570		Philosophy of Education	3	0	0	3	3
ITB3390		World Civilizations	3	0	0	3	3
ITB2030		Philosophy of Science	3	0	0	3	3
ITB4100		Social Structures and Historical Transformations	3	0	0	3	3
ILT1621		Graphic Media Design Tools	3	0	0	3	3
SBP2082		Urban Sociology	3	0	0	3	3
SYP2192		Cultural management and Its Agents 2	3	0	0	3	3
SYP3241		Public Relations	3	0	0	3	3
MIM1422		Introduction to History of Art and Architecture	3	0	0	3	3
MIM2421		History of Architecture	3	0	0	3	3
MIM1412		History of Civilization	3	0	0	3	3
HRT2941		History of Geomatic Engineering Science	3	0	0	3	3
ITB2020		History of Science	3	0	0	3	3
INS2462		Traffic Safety	3	0	0	3	3
MDB4011		Introduction to German Language Skills	3	0	0	3	3
MDB4021		German Language Skills	3	0	0	3	3

MAK2100		History of Machine Technology	3	0	0	3	3
ITB3250		Introduction to Psychology	3	0	0	3	3
ITB3360		History of Art	3	0	0	3	3
MTP4760		Dance in Istanbul from the 16th Century to the Present	3	0	0	3	3
GIM4101		Innovation and Entrepreneurship in Engineering	3	0	0	3	3
TDB4011		Effective Communication and Impromptu Presentation Skills	3	0	0	3	3
TDB4031		Oratory and Diction	3	0	0	3	3
TDB4041		Turkish Story and Novel	3	0	0	3	3
ITB1680		Introduction to Polyphonic Music	3	0	0	3	3
TDB4051		Academic Turkish	3	0	0	3	3
DNS1220		Body Awareness and Breathing Techniques	3	0	0	3	3
DNS1240		Yoga and Anatomy	3	0	0	3	3
GIM4151		Innovation and Entrepreneurship	3	0	0	3	3
ITB4040		Volunteering Studies	3	0	0	3	3
TDB4061		Seven Hills İstanbul	3	0	0	3	3
ISL1150		Career Planning	3	0	0	3	3
KIM1052		Chemistry in Life	3	0	0	3	3
CEV3333		Patent and Commercialization	3	0	0	3	3
BED1013		Pilates Basic Training	3	0	0	3	3
MDB1016		Arabic for Beginners 2	3	0	0	3	3
MDB1004		Spanish for Beginners 2	3	0	0	3	3
MKT2201		Personal Mindfulness and Development	3	0	0	3	3
GRA2024		Sanal Evrene Giriş	3	0	0	3	3
EUT2022		Introduction to NFT	3	0	0	3	3
MDB1001		French for Beginners 1	3	0	0	3	3
MDB1003		Spanish for Beginners 1	3	0	0	3	3
MDB1007		Italian for Beginners 1	3	0	0	3	3
MDB1009		Greek for Beginners 1	3	0	0	3	3
MDB1011		Chinese for Beginners 1	3	0	0	3	3
MDB1013		Japanese for Beginners 1	3	0	0	3	3
MDB1015		Arabic for Beginners 1	3	0	0	3	3
MDB1017		Persian for Beginners 1	3	0	0	3	3
MDB1019		Russian for Beginners 1	3	0	0	3	3
SBO1180		Turkish Culture and History	3	0	0	3	3
SBP2020		Earthquake and Planning	3	0	0	3	3
INS4910		Disaster Information and Awareness	3	0	0	3	3
OKL2350		Nutrition and Health	3	0	0	3	3

MDB1010		Greek for Beginners 2	3	0	0	3	3
RPD2000		Addiction and Addiction Control	3	0	0	3	3
CEV3334		Environment and Human	3	0	0	3	3
SBO1120		Turkish Cultural Geography	3	0	0	3	3
MAT4279		Fundamental Rights and Responsibilities in Higher Education	3	0	0	3	3
TRO2730		Media Literacy	3	0	0	3	3
MDB1002		French for Beginners 2	3	0	0	3	3
BTO1910		Current Practices in Educational Technologies	3	0	0	3	3
FBO2260		Sustainability and Education	3	0	0	3	3
IMO2150		Concepts and Proofs in Linear Algebra	3	0	0	3	3
ING2350		English Academic Writing and Presentation Skills	3	0	0	3	3
MDB1008		Basic Italian 2	3	0	0	3	3
SNF2210		Youth and Education	3	0	0	3	3
SBO1190		Fairy Tales and Storytelling	3	0	0	3	3
SBO1230		Philosophy with Children	3	0	0	3	3
SBO1240		Environmental Citizenship and Education	3	0	0	3	3
BYM4595		Human-Centered Artificial Intelligence	3	0	0	3	3
TRO2281		Turkish Language History	3	0	0	3	3
EGT1022		Social anthropology	3	0	0	3	3
EGT4041		Education management	3	0	0	3	3
EGT2031		Human Resources Management	3	0	0	3	3
MTM3611		History of Mathematics	3	0	0	3	3
BED3011		Education of Basic Techniques in Basketball	3	0	0	3	3
BED3041		Soccer and Basic Movement Teaching	3	0	0	3	3
BED4031		Principle figures of the folk dances	3	0	0	3	3
BED3051		Education of Basic Techniques in Handball	3	0	0	3	3
BED3012		Education of Basic Techniques in Korfball	3	0	0	3	3
BED4022		Tennis Technic and Tactic Education	3	0	0	3	3
BED3042		Education of Basic Techniques in Volleyball	3	0	0	3	3
BED4032		Education of Fundamental Swimming Techniques	3	0	0	3	3
TRO2261		Turkish Language Teaching Literary Texts	3	0	0	3	3
SNF2112		Geography and geopolitics of Turkey	3	0	0	3	3
ISL2560		Public Relations in Business	3	0	0	3	3
ISL2710		Family Businesses and Institutionalization	3	0	0	3	3
ISL2630		Team Building and Development	3	0	0	3	3
ISL2901		Direct Marketing	3	0	0	3	3
ISL2760		Fundamentals of Logistics Management	3	0	0	3	3

SBP2031		Urban Economics	3	0	0	3	3
ITB2040		Economic Policies and Applications	3	0	0	3	3
ITB3330		Environment and Ecology	3	0	0	3	3
ITB2090		Democracy Culture Principles and Institutions	3	0	0	3	3
ITB3150		History and Cinema	3	0	0	3	3
ITB3020		Introduction to Philosophy	3	0	0	3	3
ITB3040		Political Developments and Social Movements in Twentieth-Century	3	0	0	3	3
ITB3270		Istanbul: Past, Present, and Future	3	0	0	3	3
ILT1611		Techniques Of Photography	3	0	0	3	3
ITB3260		Cultural Studies and Identity	3	0	0	3	3
ITB3420		The Social Structure of Ottoman Empire	3	0	0	3	3
ITB3210		Communication in Contemporary Society	3	0	0	3	3
University Occupational Elective Courses							
Code	Req.	Title	Lecture	Practical	Laboratory	Local Credit	ECTS
YZM4015		Introduction to Artificial Intelligence	3	0	0	3	5
BYM4721		Nanotechnology in Bioengineering	3	0	0	3	5
SBU3001		Basic Issues in International Relations	3	0	0	3	5
IKT3610		Energy and Natural Resources Economics	3	0	0	3	5
EHM4370		Microprocessor Based System Design	3	0	0	3	5
EHM4220		Satellite Communication	3	0	0	3	5
EHM4270		Cellular Communication Systems 1	3	0	0	3	5
GIM4322		Economics of Energy	3	0	0	3	5
GIM4392		Engineering Economics	3	0	0	3	5
KIM3557		Environmental Chemistry and Technology	3	0	0	3	5
KMM3561		Technical Communication	3	0	0	3	5
ISL3660		Business Communication	3	0	0	3	5
CEV4501		Natural Treatment	3	0	0	3	5
MAK4482		Industrial Automation	3	0	0	3	5
CEV4111		Environmental and Public Health	3	0	0	3	5
HRT4332		Navigation And Kinematic Positioning	3	0	0	3	5
MIM4341		Space and History in cinema	3	0	0	3	5
ELM4010		Introduction to Smart Grids	3	0	0	3	5
SBP1300		Readings on Cities	3	0	0	3	5
SBP4310		Project Management Process in Participatory City Management	3	0	0	3	5
KVK4412		Cultural Heritage Management	3	0	0	3	5
BME4142		Physiological Control Systems	3	0	0	3	5
IKT3820		Social Policy Economics	3	0	0	3	5
ISL3940		Fundamentals of Actuarial Mathematics	3	0	0	3	5

INS3841		Introduction to Construction Legislation	3	0	0	3	5
BLM4400		Contemporary Topics in Comp. Engineering	3	0	0	3	5
BLM1012		Introduction To Procedural Programming	3	0	0	3	5
BME4110		Quantum Physics for Engineers	3	0	0	3	5
TDE3557		Literary Debates in Modern Turkish Literature	3	0	0	3	5
MTM4711		Mathematical Modeling	3	0	0	3	5
ELM4071		Numerical Methods and Applications in Engineering	3	0	0	3	5
KOM4760		Basic Optimization Concepts in Engineering	3	0	0	3	5
KOM4770		Manufacturing Techniques	3	0	0	3	5
GMI3850		Ship-Sourced Marine Pollution	3	0	0	3	5
GMI3860		Structure Dynamics	3	0	0	3	5
IST3557		Statistics and Scientific Thinking	3	0	0	3	5
MAT3557		Encryption	3	0	0	3	5
FIZ3557		Physics in Life	3	0	0	3	5
MBG3557		Evolution and Molecular Ecology	3	0	0	3	5
MEM4131		Material World	3	0	0	3	5
KVK4422		Museology and Museography	3	0	0	3	5
GDM4309		Food Literacy	3	0	0	3	5
MKT4403		Mechatronics System Integration	3	0	0	3	5
END4393		Risk Management	3	0	0	3	5