BAYBURT UNIVERSITY
FACULTY OF ENGINEERING

Department of
Industrial
Engineering

Guide for International
Students

BAYBURT
UNIVERSITY

Safe City
Peaceful University   www.bayburt.edu.tr

 Bayburt.edu.tr   @Bayburtedu   Bayburtedutr

Bayburt

Bayburt

Bayburt is located on the historic Silk Road connecting the Eastern Anatolia to the Black Sea. Located on the banks of the river Coruh, the city's history dates back to 3000 B.C. Evliya Celebi, who visited Bayburt in 1647, describes its name with the words "bay" and "yurt" which mean "rich" and "town", respectively. Occupied by Russian in 1916, Bayburt was destroyed to a great extent. Having been a part of Erzurum until then, Bayburt was attached to Gumushane in 1927 and it gained a province status in according to the law number 3578 in 1989. According to the addressed-based 2017 data of TUIK, Bayburt province has a population of 80,417.
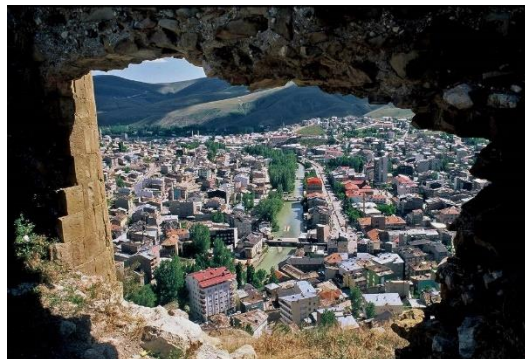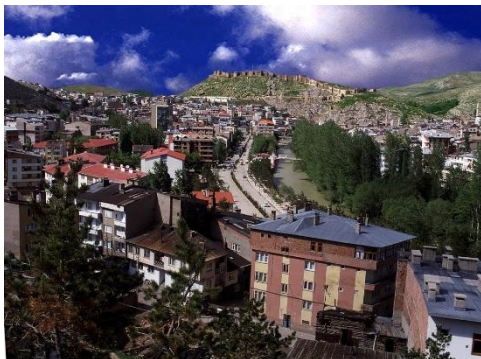
Bayburt

Historical, Cultural and Touristic Destinations

A province rich in historical and cultural values, Bayburt also draws attention of local and foreign tourists with its touristic destinations and natural beauties. The historical and cultural structures, many of which are Turkish, shed light on the history of the city. The most important of these is undoubtedly the Bayburt Castle which is located on a hill in the capitol city and attracts attention by its location, structure and architectural features.

Aydintepe Undergorund City in Aydintepe district is the second most important value of the city.

Baksi Museum, one of the world's first village museums and spreading over 30 acres of area with its exhibition halls, was founded on a hill overlooking the Coruh.

Cimagil cave, the tomb of Dede Korkut, Korgan Bridge, Sirakayalar Waterfall, Saruhan Citadel, Yenisehir and Aslandagi Recreational Facilities are other destinations attracting many visitors each year.

BAYBURT UNIVERSITY

Peaceful University of Safe City

Bayburt University

Bayburt University, one of the youngest higher education institutions of Turkey, was founded on May 31, 2008. Bayburt University aims at being one of the universities and/or institutes well known in the world in education, research and service, supplying unique choices for training and individual development of the students, being an academic structure responsible for promoting life quality of the regional and national population and being an address of student-focused research.

Contact Us

Bayburt University
Bayburt Üniversitesi Dede Korkut Külliyesi
Bayburt 69000 Turkey
+90 (458) 211 1153
rektorluk@bayburt.edu.tr

www.bayburt.edu.tr/en/

Faculty of Engineering

Departments of Faculty of Engineering

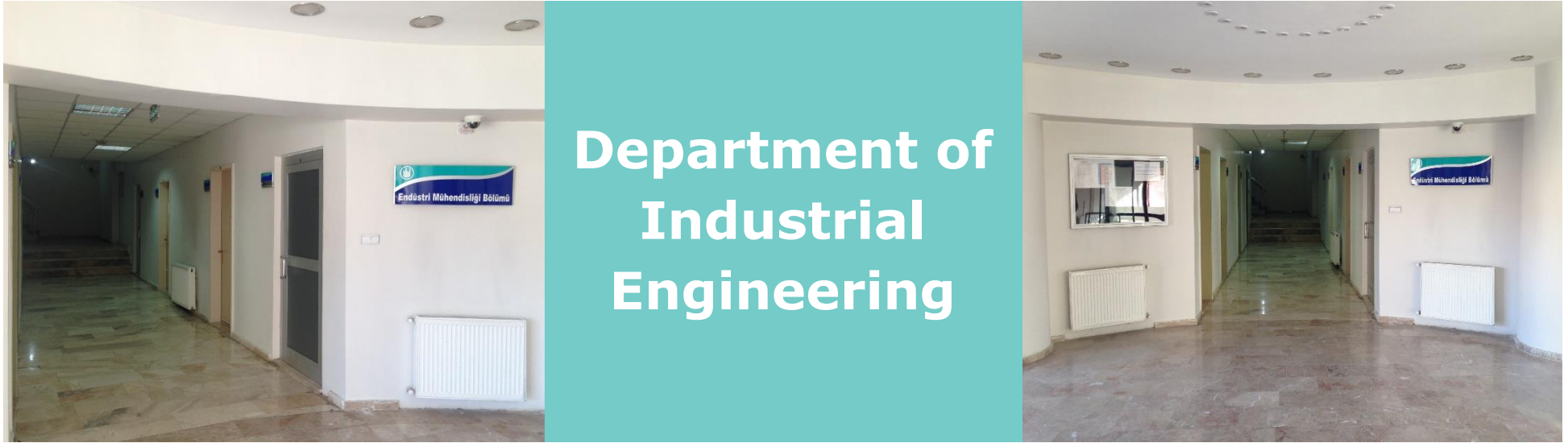Department of Mechanical Engineering

Department of Civil Engineering

Department of Food Engineering

Department of Industrial Engineering

Department of Electrical-Electronics Engineering

Department of Industrial Engineering

About Department of Industrial Engineering

Bayburt University Department of Industrial Engineering was opened in 2016. The department offers the undergraduate level education for prospective students. The faculty of Department of Industrial Engineering has a professor doctor, an associate professor doctor, two assistant professor doctors and five research assistants.

The department offers a wide variety of mandatory and elective courses for prospective students. The aim of the department is to train new Industrial Engineers, who find solutions to the problems of the service and manufacturing systems using Industrial Engineering and Operations Research techniques.

Contact Us

Bayburt University Muhendislik Fakultesi Endustri Muhendisligi Bolumu

Bayburt Üniversitesi Dede Korkut Külliyesi
Bayburt 69000 Turkey
+90 (458) 211 1177
muhendislik@bayburt.edu.tr

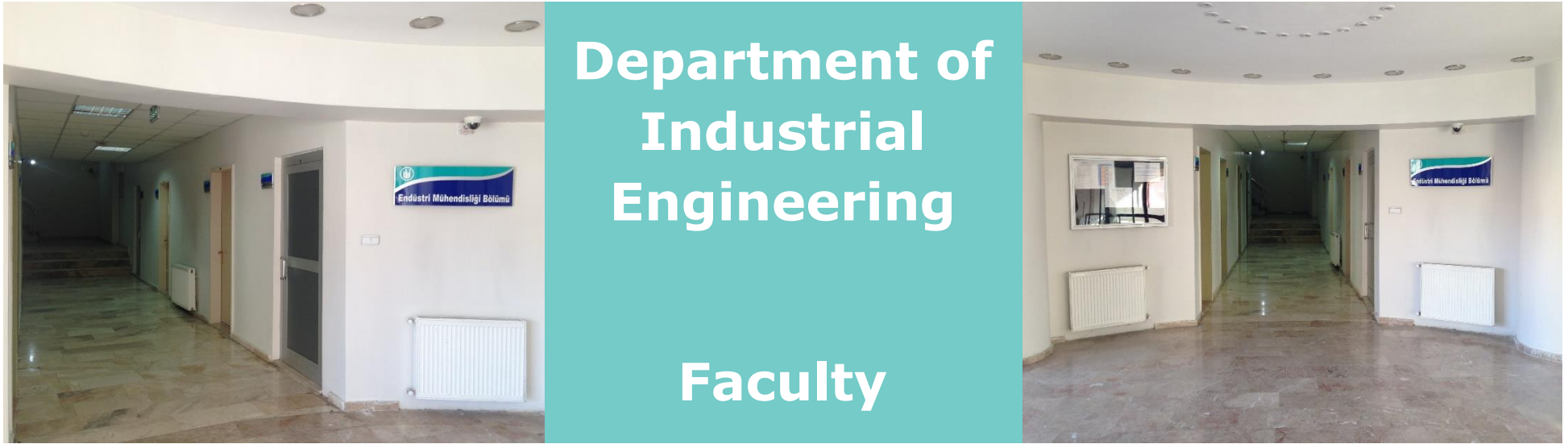https://bayburt.edu.tr/en/endustri-muhendisligi-bolumu/

Contact Us

Dr. Akin Ozdemir

Erasmus Coordinator of Department of Industrial Engineering

Bayburt Üniversitesi Dede Korkut Külliyesi Muhendislik Fakultesi Endustri Muhendisligi Bolumu Oda: 120

+90 (458) 211 1153 - 1679
akinozdemir@bayburt.edu.tr

Department of Industrial Engineering

Faculty

Faculty of Department of Industrial Engineering

Professor Doctor (Prof. Dr.)

Metin Ucurum, Department Chair (Interest areas: Statistical quality control and design of experiment)

Associate Professor Doctor (Assoc. Prof. Dr.)

Mehmet Cinar (Interest areas: Industrial applications and physics)

Assistant Professor Doctors (Asst. Prof. Drs.)

Hamid Yilmaz, Department Deputy Chair (Interest areas: Scheduling, production planning and optimization)

Akin Ozdemir, Erasmus Coordinator (Interest areas: Applications of operations research and quality engineering)

Cagatay Teke (Interest areas: Total productive maintenance, design of experiments and optimization)

Research Assistants (PhD Students)

Didem Guleryuz (Interest areas: Statistical quality control and optimization)

Serhan Kokhan (Interest areas: Industry 4.0 and multi-objective optimization techniques)

Seyma Emec (Interest areas: Analytic hierarchy problems, facility planning and supply chain management)

Reyhan Merve Topcu (Interest areas: Taguchi experimental design and its applications)

Department of Industrial Engineering

Most Recent Publications

M. ÇOLAK, M. UÇURUM, M. ÇINAR, & Ü. ATICI, "GG25 GRİ DÖKME DEMİR MALZEMESİNİN ÜRETİMİNDE BULANIK İSTATİSTİKSEL PROSES KONTROLÜNÜN UYGULANMASI," *Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi*, vol. 7, no. 1, pp. 427–437, Jan. 2018.

A. Rouane, N. Tchouar, A. Kerassa, S. Belaidi, & M. ÇINAR, "Structure Based Virtual Screening and Drug Like of Quercetin Derivatives with Anti Malaria Activity," *REVIEWS IN THEORETICAL SCIENCE*, vol. 5, pp. 1–11, Jan. 2017.

M. UÇURUM, "Fuzzy Statistical Process Control of a Calcite Grinding Plant Using Total Color Difference Parameter ΔE ," *IOSR Journal of Engineering (IOSRJEN)*, vol. 7, no. 5, pp. 7–22, May 2017.

O. OUKIL, N. TCHOUAR, S. BELAIDI, T. SALAH , & M. ÇINAR, "Structural Investigation Drug Likeness Scoring and Structure Activity Property Relationships Applied On 1 2 3 Thiadiazole Derivatives with Kinas Inhibitors Activity," *Romanian Journal of Chemistry*, vol. 62, no. 1, pp. 81–92, Jan. 2017.

Ozdemir, A., & Cho, B. R. (2017). Response surface-based robust parameter design optimization with both qualitative and quantitative variables. *Engineering Optimization*, *49*(10), 1796-1812.

Yılmaz, M., Çodur, M. K., & Yılmaz, H. (2017). Chinese postman problem approach for a large-scale conventional rail network in Turkey. *Tehnički vjesnik*, *24*(5), 1471-1477.

Yilmaz, H., & Yilmaz, M. (2017). Note to: a mathematical model and ant colony algorithm for multi-manned assembly line balancing problem. *The International Journal of Advanced Manufacturing Technology*, *89*(5-8), 1935-1939.

M. UÇURUM, M. ÇOLAK, M. ÇINAR, & D. DIŞPINAR, "Implementation of Statistical Process Control SPC Techniques as Quality Control in Cast Iron Part Production," *Int. Journal of Engineering Precious Research and Application*, vol. 1, no. 3, pp. 14–24, 2016.

M. UÇURUM, M. Eda, D. Hamdi, K. Necmettin, & M. Avşar, "APPLICABILITY OF STATISTICAL PROCESS CONTROL SPC FOR SURFACE MODIFICATION PLANT AND PROPERTIES OF COATED CALCITE," *Physicochemical Problems of Mineral Processing*, vol. 52, no. 2, pp. 803–820, 2016.

Ö. Bilge & M. UÇURUM, "An experimental study on the ultra fine grinding of gypsum ore in a dryball mill," *POWDER TECHNOLOGY*, vol. 291, pp. 186–192, Jan. 2016.

O. Birol & M. UÇURUM, "Investigation of the Cyanide Leaching Optimization forUltra Fine Grinding Gold Silver Ore," *PARTICULATE SCIENCE AND TECHNOLOGY*, vol. 34, no. 5, pp. 633–638, May 2016.

Ozdemir, A., & Cho, B. R. (2016). A nonlinear integer programming approach to solving the robust parameter design optimization problem. *Quality and Reliability Engineering International*, *32*(8), 2859-2870.

Sahin, M., Kellegoz, T., & Kokhan, S. (2016). A MULTI-OBJECTIVE DECISION MAKING MODEL FOR CLASS SELECTION PROBLEM: A CASE STUDY.

Department of Industrial Engineering

Laboratories

Ergonomics Laboratory

Under Construction

Computer Laboratories

1 Computer Lab and Technical Drawing Class for 65 students

1 Computer Lab for 36 students

1 Computer Lab for 30 students

Computer Integrated Manufacturing (CIM)

Under Construction
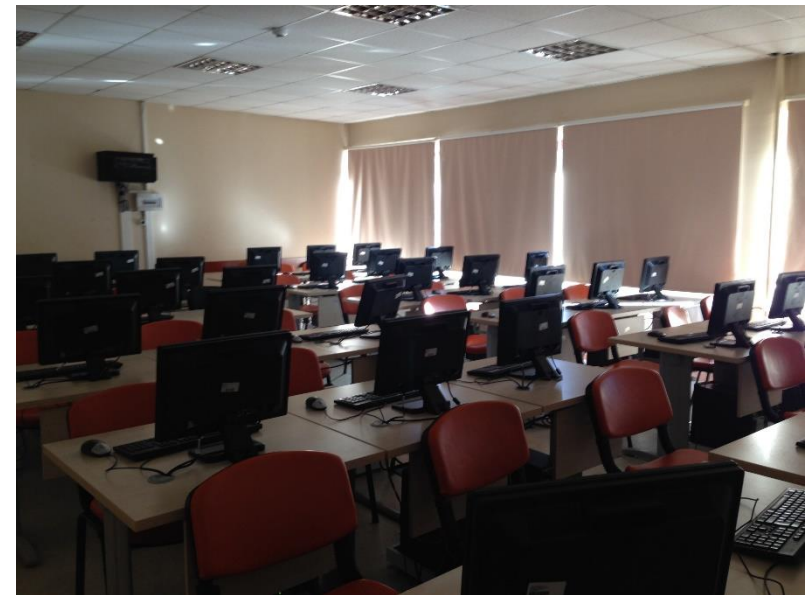
Department of Industrial Engineering

Erasmus+ Programme

Erasmus+ will support transnational partnerships among Education, Training, and Youth institutions and organizations to foster cooperation and bridge the worlds of Education and work in order to tackle the skills gaps we are facing in Europe.

We are interesting to cooperate with European universities in the framework of ERASMUS+ program, especially in students mobile directions. We have ERASMUS+ agreements with the following universities:

Politehnica University Timisoara

Timis, ROMANIA

Department of Industrial Engineering

Farabi Exchange Programme

Within the scope of the Farabi Exchange Program which enables student exchange among higher education institutions in Turkey, students can continue their education in another higher education institution for one or two semesters.

We have Farabi agreements with the following universities:

Ataturk University, Erzurum, Turkey

Firat University, Elazig, Turkey

Department of Industrial Engineering

Mevlana Exchange Programme

Within the scope of Mevlana Exchange Programme, the students registered in formal education programmes at Associate Degree, B.A, M.A and PhD levels of the higher education institutions in Turkey (on condition that the higher education institutions signed a bilateral Mevlana Exchange Protocol) may benefit from Mevlana Exchange Programme. Students can benefit from Mevlana Exchange Programme for at least one semester and at most two semesters. As the semester duration may differ according to the education system of universities, the total duration of mobility can not exceed one academic year.

We have Mevlana agreements with the following universities:

Kish International Campus University of Tehran, Iran

University of Science and Technology, Yemen

International Black Sea University, Georgia

Mevlana
Değişim Programı
Exchange Programme

Department of Industrial Engineering

Courses

First Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM115	Chemistry	Compulsory	3	0	0	6
EM103	Foreign Language I	Compulsory	2	0	0	2
EM113	Introduction to Industrial Engineering	Compulsory	2	0	0	3
EM107	Mathematics I	Compulsory	4	0	0	6
EM109	Physics I	Compulsory	4	0	0	6
EM111	Technical Drawing	Compulsory	3	1	0	5
EM101	Turkish Language I	Compulsory	2	0	0	2
		Total	20	1	0	30

Second Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM114	Computer Programming I	Compulsory	2	1	0	5
EM112	Economy	Compulsory	3	0	0	5
EM104	Foreign Language II	Compulsory	2	0	0	2
EM116	Linear Algebra	Compulsory	2	0	0	4
EM108	Mathematics II	Compulsory	4	0	0	6
EM110	Physics II	Compulsory	3	0	0	6
EM102	Turkish Language II	Compulsory	2	0	0	2
		Total	18	1	0	30

Department of Industrial Engineering

Courses

Third Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM211	Electives Group 1	Elective	-	-	-	4
EM105	Ataturk's Principles and History I	Compulsory	2	0	0	2
EM205	Computer Programming II	Compulsory	3	1	0	5
EM201	Differential Equations	Compulsory	4	0	0	5
EM207	Engineering Economics	Compulsory	3	0	0	4
EM203	Statistics I	Compulsory	3	0	0	4
EM209	System Analysis and Design	Compulsory	3	0	0	4
ÜSD	University Elective Courses Group	Elective	-	-	-	2
	Total		23	1	0	30

Fourth Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM212	Electives Group 3	Elective	-	-	-	3
EM106	Ataturk's Principles and History II	Compulsory	2	0	0	2
EM210	Elective Groups 2	Elective	-	-	-	3
EM208	Ergonomics	Compulsory	3	0	0	5
EM206	Material Information	Compulsory	3	0	0	5
EM202	Operations Research I	Compulsory	3	0	0	6
EM204	Statistics II	Compulsory	4	0	0	6
	Total		21	0	0	30

Department of Industrial Engineering

Courses

Fifth Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM313	Electives Group 4	Elective	-	-	-	3
EMS1	Internship 1	Compulsory	0	1	0	4
EM309	Management Information Systems	Compulsory	3	0	0	4
EM303	Operations Research II	Compulsory	3	0	0	6
EM307	Production Planning and Control	Compulsory	3	0	0	3
EM301	Production Systems	Compulsory	3	0	0	3
EM305	Simulation	Compulsory	3	0	0	4
EM311	Work Study	Compulsory	2	0	0	3
		Total	20	1	0	30

Sixth Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM302	Cost Analysis	Compulsory	3	0	0	4
EM310	Electives Group 5	Elective	-	-	-	5
EM312	Electives Group 6	Elective	-	-	-	5
FS01	Faculty Elective Courses Group	Elective	-	-	-	3
EM306	Logistics Management	Compulsory	3	0	0	3
EM304	Operations Research III	Compulsory	3	0	0	6
EM308	Quality Management	Compulsory	3	0	0	4
		Total	20	0	0	30

Department of Industrial Engineering

Courses

Seventh Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM405	Decision Theory and Analysis	Compulsory	2	1	0	3
EM409	Electives Group 7	Elective	-	-	-	4
EM411	Electives Group 8	Elective	-	-	-	4
EM413	Electives Group 9	Elective	-	-	-	4
EM403	Facility Site Selection and Design	Compulsory	3	0	0	3
EM401	Graduation Work I	Compulsory	0	3	0	5
EMS2	Internship 2	Compulsory	0	1	0	4
EM407	Statistical Process Control	Compulsory	3	0	0	3
		Total	17	5	0	30

Eighth Semester

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM406	Electives Group 10	Elective	-	-	-	5
EM408	Electives Group 11	Elective	-	-	-	5
EM410	Electives Group 12	Elective	-	-	-	5
EM402	Graduation Work II	Compulsory	0	4	0	10
EM404	Occupational Health and Safety	Compulsory	3	0	0	5
		Total	12	4	0	30

Department of Industrial Engineering

Elective Courses

Electives Group 1

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM2111	Taguchi Design of Experiments	Elective	3	0	0	4
EM2112	Heuristic Optimization	Elective	3	0	0	4

University Elective Courses Group

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
ÜS0104.1	Risk Analysis	Elective	2	0	0	2
ÜS0104.2	Strategic Management Practices	Elective	2	0	0	2
ÜS0104.3	Data Mining	Elective	2	0	0	2
ÜS0104.4	International Business and Entrepreneurship	Elective	2	0	0	2

Elective Groups 2

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM2101	Maintenance Planning	Elective	3	0	0	3
EM2102	Lean Manufacturing	Elective	3	0	0	3

Electives Group 3

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM2121	Applied ERP Systems	Elective	3	0	0	3
EM2122	Supply Chain Management	Elective	3	0	0	3

Electives Group 4

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM3131	Preparation of Technical Report	Elective	3	0	0	3
EM3132	Performance Management	Elective	3	0	0	3

Department of Industrial Engineering

Elective Courses

Electives Group 5

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM3101	Intelligent Manufacturing Systems	Elective	3	0	0	5
EM3102	Artificial Intelligence	Elective	3	0	0	5

Electives Group 6

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM3121	Technology and Innovation Management	Elective	3	0	0	5
EM3122	Group Technology	Elective	3	0	0	5
EM3123	Enterprise Asset Management	Elective	3	0	0	5

Faculty Elective Courses Group

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
FS0104.1	Engineering and Management	Elective	2	0	0	3
FS0104.2	Quality Improvement Methods	Elective	2	0	0	3
FS0104.3	Human Resources Management	Elective	2	0	0	3
FS0104.4	Planning for Engineers	Elective	2	0	0	3

Electives Group 7

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM4091	Service Management Systems	Elective	3	0	0	4
EM4092	Decision Support Systems	Elective	3	0	0	4
EM4093	Database Management	Elective	3	0	0	4

Department of Industrial Engineering

Elective Courses

Electives Group 8

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM4111	Enterprise Information Management	Elective	3	0	0	4
EM4112	Multi-Criteria Decision Making	Elective	3	0	0	4
EM4113	R & D Management	Elective	3	0	0	4

Electives Group 9

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM4131	Distribution and Marketing	Elective	3	0	0	4
EM4132	Feasibility Analysis	Elective	3	0	0	4

Electives Group 10

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM4061	Macro Programming	Elective	3	0	0	5
EM4062	Sector-Based Process Management	Elective	3	0	0	5

Electives Group 11

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM4081	Six Sigma	Elective	3	0	0	5
EM4082	Transportation - Distribution Planning Management	Elective	3	0	0	5

Electives Group 12

Course Unit Code	Course Unit Title	Type of Course	T	P	L	ECTS
EM4101	Queuing Theory	Elective	3	0	0	5
EM4102	Dynamic Programming	Elective	3	0	0	5

BAYBURT
UNIVERSITY