

# 2017-2018 Güz Döneminden İtibaren Tüm Öğrencilere Uygulanacak Değişiklikler

Gıda Mühendisliği Bölümü					
Lisans Eğitim Programı: Önerilen (İngilizce)					
FIRST SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
MATH	141	Basic Calculus	(3+2) 4	5	
PHYS	121	General Physics I	(3+2) 4	7	
MBG	101	Biology I	(3+0) 3	5	
CHEM	121	General Chemistry I	(3+0) 3	5	
CHEM	141	General Chemistry Lab I	(0+2) 1	2	
ENG	101	Development of Reading and Writing Skills I	(3+0) 3	3	
FE	105	Introduction to Food Engineering	(2+0) 2	3	
Total Number of Credits in the Semester :			20	30	
SECOND SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
MATH	142	Basic Calculus II	(3+2) 4	6	
PHYS	122	General Physics II	(3+2) 4	8	
CHEM	122	General Chemistry II	(3+0) 3	5	
CHEM	142	General Chemistry Lab. II	(0+2) 1	2	
ENG	102	Development of Reading and Writing Skills II	(3+0) 3	3	
FE	104	Fundamentals of Nutrition	(3+0) 3	6	
Total Number of Credits in the Semester :			18	30	
THIRD SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
MATH	255	Differential Equations	(4+0) 4	6	
CHEM	221	Organic Chemistry	(4+0) 4	5	
CHEM	201	Analytical Chemistry I	(3+0) 3	5	
FE	201	Material and Energy Balances in Engineering	(3+0) 3	6	
ECON	205	Principles of Economics	(3+0) 3	4	
TURK	201	Turkish Language I (NC)	(2+0) 0	2	
HIST	201	Principles of Atatürk I (NC)	(2+0) 0	2	
Total Number of Credits in the Semester :			17	30	

FOURTH SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
FE	202	Fluid Mechanics	(3+0) 3	6	FE 201
FE	204	Numerical Methods in Engineering	(3+0) 3	6	
FE	206	Food Microbiology	(3+2) 4	7	
TURK	202	Turkish Language II (NC)	(2+0) 0	2	
HIST	202	Principles of Atatürk II (NC)	(2+0) 0	2	
FE	210	Introduction to Statistics for Engineers	(3+0) 3	7	
		Total Number of Credits in the Semester :	13	30	
FIFTH SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
FE	301	Heat Transfer	(3+0) 3	6	FE 201, 202
FE	303	Thermodynamics	(3+0) 3	6	FE 201
FE	305	Food Chemistry	(3+2) 4	6	
FE	307	Nutritional Biochemistry	(3+0) 3	6	
ENG	301	Technical Writing and Communication	(3+0) 3	3	
-		Nontechnical Elective	(3+0) 3	3	
		Total Number of Credits in the Semester :	19	30	
SIXTH SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
FE	302	Mass Transfer	(3+0) 3	5	FE 201, 202, 301, 303
FE	304	Unit Operations in Food Processing	(3+4) 5	5	
FE	316	Applied Nutrition in Food Science	(2+2) 3	5	
-	-	Restricted Technical Elective	(3+0) 3	6	
FE	310	Food Technology	(3+0) 3	5	
-		Technical Elective	(3+0) 3	4	
		Total Number of Credits in the Semester :	20	30	

SEVENTH SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
FE	401	Principles of Food Safety and Quality Assurance	(3+2) 4	6	
FE	403	Food Product and Process Design	(2+4) 4	6	FE 202, 301, 302, 304, ECON 205
-		Nontechnical Elective	(3+0) 3	3	
-		Technical Elective	(3+0) 3	4	
-		Restricted Technical Elective	(3+0) 3	4	
FE	421	Graduation Project*	(0+6) 3	6	
FE	400	Summer Practice (NC)	(0+0) 0	1	
		Total Number of Credits in the Semester :	20	30	
EIGHTH SEMESTER			CREDIT	ECTS CREDIT	PREREQUISITES
FE	402	Nutrition in Health and Disease	(3+0) 3	7	
FE	404	Instrumental Analysis in Food and Nutrition	(2+2) 3	8	
-		Nontechnical Elective	(3+0) 3	3	
-		Technical Elective	(3+0) 3	6	
-		Technical Elective	(3+0) 3	6	
		Total Number of Credits in the Semester :	15	30	
		Total Credits :	142	240	
* FE 421 Graduation Project will be opened irregularly at the 8th semester for unsuccessful students					

FOOD ENGINEERING ELECTIVE COURSE LIST*						PREREQUISITES
FE	308	Functional Foods (Restricted Elective)	(3+0)	3	6	
FE	311	Principles of Food Packaging	(3+0)	3	4	
FE	312	Introduction to Industrial Microbiology(Restricted Elective)	(3+0)	3	6	
FE	313	Food Additives	(3+0)	3	4	
FE	314	Food Enzymes	(3+0)	3	4	
FE	405	Microbiological Quality Control	(2+2)	3	4	FE 206
FE	406	Principles of Food Preservation	(3+0)	3	4	
FE	407	Engineering Properties of Foods	(2+2)	3	4	
FE	318	Introduction to Food Biotechnology(Restricted Elective)	(3+0)	3	6	
FE	409	Methods in Nutritional Sciences (Restricted Elective)	(3+0)	3	4	
FE	410	Introduction to Nutrigenomics and Nutrigenetics(Restricted Elective)	(3+0)	3	4	
FE	411	Research/Problems in Nutrition (Restricted Elective)	(3+0)	3	4	
FE	412	Introduction to Nutritional Epidemiology (Restricted Elective)	(3+0)	3	4	
FE	413	Quality Management Systems	(3+0)	3	6	
FE	414	Process Dynamics and Control	(3+0)	3	6	FE 301, 302
FE	415	Sensory Analysis in Foods	(3+0)	3	6	
FE	416	Reaction Kinetics in Food Engineering	(3+0)	3	6	
FE	417	Special Topics in Nutrition and Food Engineering	(3+0)	3	6	
<p>*Regulations for Technical Elective Courses:</p> <ol style="list-style-type: none"> <li>1) The 2 groups of restricted elective courses that must be selected at 6<sup>th</sup> and 7<sup>th</sup> semesters are [FE308, FE312 and FE318] and [FE409, FE410, FE411, FE412], respectively.</li> <li>2) Other technical elective courses offered on campus could be selected by the consent of the department only if they meet minimum 240 ECTS (240 AKTS) in total.</li> <li>3) The third restricted technical elective selected will be handled as a technical elective</li> </ol>						

FOOD ENGINEERING ELECTIVE COURSE LIST					PREREQUISITES
FE	311	Principles of Food Packaging	(3+0) 3	4	
FE	313	Food Additives	(3+0) 3	4	
FE	314	Food Enzymes	(3+0) 3	4	
FE	405	Microbiological Quality Control	(2+2) 3	4	FE 206
FE	406	Principles of Food Preservation	(3+0) 3	4	
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FE	413	Quality Management Systems	(3+0) 3	6	
FE	414	Process Dynamics and Control	(3+0) 3	6	FE 301, 302
FE	415	Sensory Analysis in Foods	(3+0) 3	6	
FE	416	Reaction Kinetics in Food Engineering	(3+0) 3	6	
FE	417	Special Topics in Nutrition and Food Engineering	(3+0) 3	6	
FOOD ENGINEERING RESTRICTED ELECTIVE COURSE LIST					
FE	308	Functional Foods (Restricted Elective)	(3+0) 3	6	
FE	312	Introduction to Industrial Microbiology(Restricted Elective)	(3+0) 3	6	
FE	318	Introduction to Food Biotechnology(Restricted Elective)	(3+0) 3	6	
FE	409	Methods in Nutritional Sciences (Restricted Elective)	(3+0) 3	4	
FE	410	Introduction to Nutrigenomics and Nutrigenetics(Restricted Elective)	(3+0) 3	4	
FE	411	Research/Problems in Nutrition (Restricted Elective)	(3+0) 3	4	
FE	412	Introduction to Nutritional Epidemiology (Restricted Elective)	(3+0) 3	4	
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