



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2019-2020 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI		Biyosistem Mühendisliği															
BİLİM DALI / PROGRAMI		Yüksek Lisans Programı															
DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR								
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	
	BSM5191	TEZ DANIŞMANLIĞI I	Z	0	1	0	0	1	BSM5192	TEZ DANIŞMANLIĞI II	Z	0	1	0	0	1	
	BSM5181	YÜKSEK LİSANS UZMANLIK ALAN DERSİ I	S	4	0	0	0	5	BSM5182	YÜKSEK LİSANS UZMANLIK ALAN DERSİ II	S	4	0	0	0	5	
	BSM5009	SULAMA YÖNÜNDEN TOPRAK - BİTKİ -SU İLİŞKİLERİ (ARAZİ VE SU KAYNAKLARI BİLİM DALI)	Z	3	0	0	3	6	BSM5172	SEMİNER	Z	0	2	0	0	4	
	BSM5037	TARIMSAL YAPI ELEMANLARININ TASARIMINDA İLERİ UYGULAMALAR (TARIMSAL YAPILAR BİLİM DALI)	Z	3	0	0	3	6	BSM5000	BİYOSİSTEM MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ	Z	2	0	0	2	2	
	BSM5017	TARIMDA ENERJİ KULLANIMI (TARIMSAL ENERJİ SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6	BSM5008	COĞRAFI BİLGİ SİSTEMİ ve DOĞAL KAYNAKLARIN YÖNETİMİ (ARAZİ VE SU KAYNAKLARI BİLİM DALI)	Z	3	0	0	3	6	
	BSM5019	TARIMSAL AMAÇLI POMPAJ TESİSLERİNİN PROJELENDİRİLMESİ (TARIMSAL MAKİNE SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6	BSM5036	DAMIZLIK SÜT SIĞIRCILIĞI İŞLETME YAPILARININ PLANLAMA ve TASARIMI (TARIMSAL YAPILAR BİLİM DALI)	Z	3	0	0	3	6	
									BSM5028	BAHÇE ve SERA TARIM MEKANİZASYONU (TARIMSAL MAKİNE SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6	
									BSM5032	TARIM ÜRÜNLERİNİN ÖN SOĞUTULMASINDA KULLANILAN MAKİNELERİN ÇALIŞMA PRENSİBİ (TARIMSAL ENERJİ SİSTEMLERİ BİLİM DALI)	Z	2	2	0	3	6	
	BSM	SEÇMELİ DERS	S				3	6	BSM	SEÇMELİ DERS	S				3	6	
	BSM	SEÇMELİ DERS	S				3	6		SEÇMELİ DERS *	S				3	6	
	SEÇMELİ DERS *	S				3	6										
Toplam Kredi							12	30	Toplam Kredi							11	30
TEZ AŞAMASI	III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR								
	BSM5183	YÜKSEK LİSANS UZMANLIK ALAN DERSİ III	Z	4	0	0	0	5	BSM5184	YÜKSEK LİSANS UZMANLIK ALAN DERSİ IV	Z	4	0	0	0	5	
	BSM5193	TEZ DANIŞMANLIĞI III	Z	0	1	0	0	25	BSM5194	TEZ DANIŞMANLIĞI IV	Z	0	1	0	0	25	
Toplam Kredi							0	30	Toplam Kredi							0	30
TOPLAM KREDİ: 23 - TOPLAM AKTS: 120																	

Not: * Öğrenci isterse, danışmanın onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2019-2020 EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)

ANABİLİM DALI		Biyosistem Mühendisliği														
BİLİM DALI / PROGRAMI		Yüksek Lisans Programı														
DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR							
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS
	BSM5001	TOPRAK ve SU KORUMA MÜHENDİSLİĞİ	S	3	0	0	3	6	BSM5002	DRENAJ MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ	S	3	0	0	3	6
	BSM5003	KIRSAL ALAN FİZİKSEL PLANLAMASI ve ARAZİ TOPLULAŞTIRMA İLİŞKİSİ	S	3	0	0	3	6	BSM5004	BİYOSİSTEM MÜHENDİSLİĞİNDE BİLGİSAYAR DESTEKLİ TASARIM	S	2	2	0	3	6
	BSM5005	BİYOSİSTEM MÜHENDİSLİĞİNDE KONUMSAL TEKNOLOJİLER	S	3	0	0	3	6	BSM5006	BASINÇLI SULAMA SİSTEM ve YÖNTEMLERİ	S	3	0	0	3	6
	BSM5007	KÜLTÜR BİTKİLERİNİN SULANMASI	S	3	0	0	3	6	BSM5010	SULAMA ŞEBEKELERİNDE ORGANİZASYON VE YÖNETİM	S	3	0	0	3	6
	BSM5011	ARAZİ TOPLULAŞTIRMASINDA VERİ TABANI YÖNETİMİ	S	3	0	0	3	6	BSM5012	TARIM MAKİNELERİNDE ÖLÇME TEKNİĞİ	S	2	2	0	3	6
	BSM5013	SU KAYNAKLARINDA SİSTEM MÜHENDİSLİĞİ	S	3	0	0	3	6	BSM5014	TARIMDA TERMİK MOTOR UYGULAMALARI	S	3	0	0	3	6
	BSM5015	BİYOSİSTEM MÜHENDİSLİĞİNDE İLERİ TERMODİNAMİK UYGULAMALARI	S	3	0	0	3	6	BSM5016	TOPRAK İŞLEME MAKİNELERİ TASARIMI	S	2	2	0	3	6
	BSM5021	İLERİ TARIM MAKİNELERİ İŞLETMECİLİĞİ	S	3	0	0	3	6	BSM5018	EKİM MAKİNELERİ TASARIMI	S	2	2	0	3	6
	BSM5023	TARIM TEKNOLOJİLERİNDE ARAŞTIRMA ve GELİŞTİRME	S	2	2	0	3	6	BSM5020	BİTKİSEL ÜRETİMDE HASSAS TARIM	S	3	0	0	3	6
	BSM5025	SÜT SAĞIM MEKANİZASYONU ve SÜT İŞLETME MAKİNELERİ	S	3	0	0	3	6	BSM5022	TARIM TEKNOLOJİLERİNDE BİLGİSAYAR UYGULAMALARI	S	2	2	0	3	6
	BSM5027	TARIM MAKİNELERİ SİSTEMLERİNİN ANALİZİ ve PLANLANMASI	S	3	0	0	3	6	BSM5024	TARIM TEKNOLOJİLERİNDE ERGONOMİ ve İŞ GÜVENLİĞİ	S	3	0	0	3	6
	BSM5029	BİYOLOJİK MATERYALİN TEKNİK ÖZELLİKLERİNİ BELİRLEME SİSTEMLERİ	S	2	2	0	3	6	BSM5026	TARIM MAKİNELERİ İŞLETMELERİNDE İŞ SİSTEMLERİ	S	3	0	0	3	6
	BSM5031	TARIMSAL ÜRÜNLERİ KURUTMA TEKNİĞİ	S	3	0	0	3	6	BSM5030	TARIM MAKİNELERİNDE KULLANILAN MEKANİZMALARIN ANALİZ TEKNİĞİ	S	3	0	0	3	6
	BSM5033	TARIMSAL YAPILARDA İÇ ORTAM HAVA KALİTESİ	S	3	0	0	3	6	BSM5034	TANELİ ÜRÜNLERİN DEPOLANMASI VE İŞLETİMİ	S	3	0	0	3	6
	BSM5035	HİPERSTATİK YAPI SİSTEMLERİ	S	3	0	0	3	6	BSM5038	TARIMSAL YAPILARDA PARTİKÜLER MADDE KİRLİLİĞİ	S	3	0	0	3	6
	BSM5039	ATIKSULARLA SULAMA	S	3	0	0	3	6	BSM5040	TARIM TEKNOLOJİLERİNDE	S	3	0	0	3	6

									STANDARDİZASYON VE KALİTE						
BSM5041	BİTKİ GELİŞİMİ VE YÖNETİMİNDE BİLGİSAYAR SİMÜLASYON MODELLERİ	S	3	0	0	3	6	BSM5042	SULAMA ZAMANININ PLANLANMASI TEKNİKLERİ	S	3	0	0	3	6
BSM5043	TARIMSAL YAPILARDA KOKU KİRLİLİĞİ VE KONTROLÜ	S	3	0	0	3	6	BSM5044	BİYOSİSTEM MÜHENDİSLİĞİNDE VERİ ANALİZİ	S	3	0	0	3	6
BSM5045	HİDROLİK DEVRE TASARIMI ve KONTROL	S	3	0	0	3	6	BSM5046	İLERİ SERA TASARIMI	S	3	0	0	3	6
BSM5047	HAYVANSAL ÜRETİM YAPILARININ TASARIMI VE MODELLENMESİ	S	3	0	0	3	6	BSM5048	GÜNEŞ ENERJİSİNİN TARIMSAL UYGULAMALARI	S	2	2	0	3	6
BSM5049	TARIM TEKNOLOJİLERİNDE SAYISAL GÖRÜNTÜ İŞLEME	S	3	0	0	3	6	BSM5050	BİYOSİSTEM MÜHENDİSLİĞİNDE TEMEL LABORATUVAR TEKNİKLERİ	S	2	0	2	3	6
BSM5051	SULAMA MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ	S	3	0	0	3	6	BSM5052	İLERİ GIDA İŞLEME VE HAZIRLAMA MEKANİZASYONU	S	4	0	0	4	6
BSM5053	BİYOSİSTEM MÜHENDİSLİĞİNDE BİLİMSEL PROJE HAZIRLAMA TEKNİKLERİ	S	4	0	0	4	6	BSM5054	ARAZİ TOPLULAŞTIRMASI PROJELERİNDE BİLGİSAYAR UYGULAMALARI	S	3	0	0	3	6
BSM5055	TARIMSAL KURUTMA UYGULAMALARI	S	2	2	0	3	6								
BSM5057	UYGULAMALI BİYOKÜTLE ENERJİLERİ	S	2	2	0	3	6								
BSM5059	TARIM MAKİNELERİNDE KULLANILAN MAKİNE ELEMANLARININ BİLGİSAYAR DESTEKLİ TASARIMI	S	3	0	0	3	6								

Not: *: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.



BURSA ULUDAG UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2019-2020 ACADEMIC YEAR COURSE PLAN

ANABİLİM DALI		Biosystem Engineering																	
BİLİM DALI / PROGRAMI		Master's Degree Program																	
DERS AŞAMASI	I. TERM / FALL								II. TERM / SPRING										
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS			
	BSM5191	MA THESIS CONSULTING I	C	0	1	0	0	1	BSM5192	MA THESIS CONSULTING II	C	0	1	0	0	1			
	BSM5181	ADVANCED TOPICS IN MA THESIS I	C	4	0	0	0	5	BSM5182	ADVANCED TOPICS IN MA THESIS II	C	4	0	0	0	5			
	BSM5009	SOIL - PLANT - WATER RELATIONSHIPS IN IRRIGATION	C	3	0	0	3	6	BSM5172	SEMINAR	C	0	2	0	0	4			
	BSM5037	ADVANCED APPLICATIONS IN DESIGN OF AGRICULTURAL BUILDING STRUCTURES	C	3	0	0	3	6	BSM5000	RESEARCH TECHNIQUES and PUBLICATION ETHICS in BIOSYSTEM ENGINEERING	C	2	0	0	2	2			
	BSM5017	ENERGY USE IN AGRICULTURE	C	3	0	0	3	6	BSM5008	GEOGRAPHIC INFORMATION SYSTEMS AND NATURAL RESOURCE MANAGEMENT	C	3	0	0	3	6			
	BSM5019	PROJECTS OF WATER SUPPLIER STATIONS FOR AGRICULTURAL PURPOSES	C	3	0	0	3	6	BSM5036	PLANNING AND DESIGNING OF LARGE DAIRY FARMS	C	3	0	0	3	6			
									BSM5028	HORTICULTURAL AND GREENHOUSE MECHANIZATION	C	3	0	0	3	6			
									BSM5032	PRINCIPLE OF PRE-COOLING MACHINERY	C	2	2	0	3	6			
	BSM	ELECTIVE COURSE	E					6	BSM	ELECTIVE COURSE	E					6			
	BSM	ELECTIVE COURSE	E					6		ELECTIVE COURSE *	E					6			
		ELECTIVE COURSE *	E					6											
Total Credits								12	30	Total Credits								11	30
TEZ AŞAMASI	III. TERM / FALL								IV. TERM / SPRING										
	BSM5183	ADVANCED TOPICS IN MA THESIS III	C	4	0	0	0	5	BSM5184	ADVANCED TOPICS IN MA THESIS IV	C	4	0	0	0	5			
	BSM5193	MA THESIS CONSULTING III	C	0	1	0	0	25	BSM5194	MA THESIS CONSULTING IV	C	0	1	0	0	25			
	Total Credits								0	30	Total Credits								0
TOTAL CREDITS: 23 TOTAL ECTS: 120																			

Not: * Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir



BURSA ULUDAG UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2019-2020 ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)

ANABİLİM DALI		Biosystem Engineering														
BİLİM DALI / PROGRAMI		Master's Degree Program														
DERS AŞAMASI	I. TERM / FALL								II. TERM / SPRING							
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	BSM5001	SOIL AND WATER CONSERVATION ENGINEERING	E	3	0	0	3	6	BSM5002	RESEARCH TECHNIQUES IN DRAINAGE ENGINEERING	E	3	0	0	3	6
	BSM5003	PHYSICAL PLANNING IN RURAL AREAS AND LAND CONSOLIDATION RELATIONS	E	3	0	0	3	6	BSM5004	COMPUTER AIDED DESIGN IN BIOSYSTEMS ENGINEERING	E	2	2	0	3	6
	BSM5005	SPATIAL TECHNOLOGIES IN BIOSYSTEMS ENGINEERING	E	3	0	0	3	6	BSM5006	PRESSURIZED IRRIGATION SYSTEMS AND METHODS	E	3	0	0	3	6
	BSM5007	IRRIGATION OF AGRICULTURAL CROPS	E	3	0	0	3	6	BSM5010	ORGANIZATION AND MANAGEMENT OF IRRIGATION NETWORK	E	3	0	0	3	6
	BSM5011	DATABASE MANAGEMENT IN THE LAND CONSOLIDATION	E	3	0	0	3	6	BSM5012	MEASUREMENT TECHNIQUES IN AGRICULTURAL MACHINERY	E	2	2	0	3	6
	BSM5013	SYSTEM ENGINEERING IN WATER RESOURCES	E	3	0	0	3	6	BSM5014	APLICATION OF INTERNAL COMBUSTION ENGINE IN AGRICULTURE	E	3	0	0	3	6
	BSM5015	ADVANCED THERMODYNAMIC IN BIOSYSTEMS ENGINEERING	E	3	0	0	3	6	BSM5016	DESIGN OF SOIL TILLAGE MACHINERY	E	2	2	0	3	6
	BSM5021	ADVANCED AGRICULTURAL MACHINERY MANAGEMENT	E	3	0	0	3	6	BSM5018	DESIGN OF SEEDING AND PLANTING MACHINERY	E	2	2	0	3	6
	BSM5023	RESEARCH AND DEVELOPMENT IN AGRICULTURAL TECHNOLOGY	E	2	2	0	3	6	BSM5020	PRECISION AGRICULTURE IN CROP PRODUCTION	E	3	0	0	3	6
	BSM5025	DAIRY MILKING SYSTEMS AND MILK PROCESSING MACHINES	E	3	0	0	3	6	BSM5022	COMPUTER APPLICATIONS IN AGRICULTURAL TECHNOLOGY	E	2	2	0	3	6
	BSM5027	SYSTEM ANALYSIS AND PLANNING IN AGRICULTURAL MACHINERY	E	3	0	0	3	6	BSM5024	ERGONOMICS AND SAFETY IN AGRICULTURAL TECHNOLOGY	E	3	0	0	3	6
	BSM5029	DETERMINATION SYSTEMS OF BIOLOGICAL MATERIAL TECHNICAL PROPERTIES	E	2	2	0	3	6	BSM5026	WORKING SYSTEMS IN AGRICULTURAL MACHINERY PLANTS	E	3	0	0	3	6
	BSM5031	DRYING METHODS OF AGRICULTURAL PRODUCTS	E	3	0	0	3	6	BSM5030	ANALYSIS TECHNIQUE OF MECHANISM IN AGRICULTURAL MACHINERY	E	3	0	0	3	6
	BSM5033	INDOOR AIR QUALITY IN BARNS	E	3	0	0	3	6	BSM5034	BULK SOLIDS STORAGE AND HANDLING	E	3	0	0	3	6
	BSM5035	STATICALLY INDETERMINATE STRUCTURES	E	3	0	0	3	6	BSM5038	PARTICULATE MATTER POLLUTION IN AGRICULTURAL BUILDINGS	E	3	0	0	3	6
	BSM5039	WASTEWATER IRRIGATION	E	3	0	0	3	6	BSM5040	STANDARDIZATION AND QUALITY IN AGRICULTURAL TECHNOLOGY	E	3	0	0	3	6
	BSM5041	COMPUTER SIMULATION MODELS IN PLANT	E	3	0	0	3	6	BSM5042	IRRIGATION SCHEDULING TECHNIQUES	E	3	0	0	3	6

	GROWTH AND MANAGEMENT															
BSM5043	ODOR POLLUTION AND CONTROL IN ANIMAL BARNs	E	3	0	0	3	6	BSM5044	DATA ANALYSIS IN BIOSYSTEMS ENGINEERING	E	3	0	0	3	6	
BSM5045	HYDRAULIC CIRCUIT DESIGN AND CONTROL	E	3	0	0	3	6	BSM5046	ADVANCED GREENHOUSE DESIGN	E	3	0	0	3	6	
BSM5047	DESIGN AND MODELING OF ANIMAL BARNs	E	3	0	0	3	6	BSM5048	AGRICULTURAL APPLICATIONS OF SOLAR ENERGY	E	2	2	0	3	6	
BSM5049	DIGITAL IMAGE PROCESSING IN AGRICULTURAL TECHNOLOGIES	E	3	0	0	3	6	BSM5050	BASIC LABORATORY TECHNIQUES IN BIOSYSTEMS ENGINEERING	E	2	0	2	3	6	
BSM5051	RESEARCH TECHNIQUES IN IRRIGATION ENGINEERING	E	3	0	0	3	6	BSM5052	ADVANCED FOOD PROCESSING AND PREPARATION MECHANIZATION	E	4	0	0	4	6	
BSM5053	SCIENTIFIC PROJECT PREPARE TECHNIQUES IN BIOSYSTEMS ENGINEERING	E	4	0	0	4	6	BSM5054	COMPUTER APPLICATIONS IN LAND CONSOLIDATION PROJECTS	E	3	0	0	3	6	
BSM5055	APPLIED AGRICULTURAL DRYING	E	2	2	0	3	6									
BSM5057	APPLIED BIOMASS ENERGIES	E	2	2	0	3	6									
BSM5059	COMPUTER AIDED DESIGN OF MACHINE ELEMENTS USED IN AGRICULTURAL MACHINERY	E	3	0	0	3	6									

Not: *: Öğrenci isterse, danışmanın onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2019-2020 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI		Biyosistem Mühendisliği																
BİLİM DALI / PROGRAMI		Doktora Programı																
DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR									
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS		
	BSM6191	TEZ DANIŞMANLIĞI I	Z	0	1	0	0	1	BSM6192	TEZ DANIŞMANLIĞI II	Z	0	1	0	0	1		
	BSM6181	DOKTORA UZMANLIK ALAN DERSİ I	S	4	0	0	0	5	BSM6182	DOKTORA UZMANLIK ALAN DERSİ II	S	4	0	0	0	5		
	BSM6009	HİDROLOJİK ANALİZLERDE İLERİ COĞRAFİ BİLGİ SİSTEMLERİ (ARAZİ VE SU KAYNAKLARI BİLİM DALI)	Z	3	0	0	3	6	BSM6172	SEMİNER	Z	0	2	0	0	4		
	BSM6025	TARIMSAL YAPILARDA NOKTASAL OLMAYAN KAYNAK KİRLİLİĞİ ve KONTROLÜ (TARIMSAL YAPILAR BİLİM DALI)	Z	3	0	0	3	6										
	BSM6019	RÜZGAR ENERJİSİNİN TARIMSAL UYGULAMALARI (TARIMSAL ENERJİ SİSTEMLERİ BİLİM DALI)	Z	2	2	0	3	6										
	BSM6021	TARIM MAKİNELERİ İMALATINDA CNC PROGRAMLAMA ESASLARI (TARIMSAL MAKİNE SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6	FEN6000	ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ	Z	2	0	0	2	2		
	BSM	SEÇMELİ DERS	S					6	BSM	SEÇMELİ DERS	S					6		
	BSM	SEÇMELİ DERS	S					6	BSM	SEÇMELİ DERS	S					6		
		SEÇMELİ DERS *	S					6		SEÇMELİ DERS *	S					6		
Toplam Kredi							12	30	Toplam Kredi							11	30	
TEZ AŞAMASI	III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR									
	YET6177	DOKTORA YETERLİLİK SINAVI	Z	0	0	0	0	10	BSM6184	DOKTORA UZMANLIK ALAN DERSİ IV	Z	4	0	0	0	5		
	BSM6183	DOKTORA UZMANLIK ALAN DERSİ III	Z	4	0	0	0	5	BSM6194	TEZ DANIŞMANLIĞI IV	Z	0	1	0	0	25		
	BSM6193	TEZ DANIŞMANLIĞI III	Z	0	1	0	0	15										
	Toplam Kredi							0	30	Toplam Kredi							0	30
	V. YARIYIL / GÜZ								VI. YARIYIL / BAHAR									
	BSM6185	DOKTORA UZMANLIK ALAN DERSİ V	Z	4	0	0	0	5	BSM6186	DOKTORA UZMANLIK ALAN DERSİ VI	Z	4	0	0	0	5		
	BSM6195	TEZ DANIŞMANLIĞI V	Z	0	1	0	0	25	BSM6196	TEZ DANIŞMANLIĞI VI	Z	0	1	0	0	25		
	Toplam Kredi							0	30	Toplam Kredi							0	30
	VII. YARIYIL / GÜZ								VIII. YARIYIL / BAHAR									
	BSM6187	DOKTORA UZMANLIK ALAN DERSİ VII	Z	4	0	0	0	5	BSM6188	DOKTORA UZMANLIK ALAN DERSİ VIII	Z	4	0	0	0	5		
	BSM6197	TEZ DANIŞMANLIĞI VII	Z	0	1	0	0	25	BSM6198	TEZ DANIŞMANLIĞI VIII	Z	0	1	0	0	25		
Toplam Kredi							0	30	Toplam Kredi							0	30	
TOPLAM KREDİ: 23																- TOPLAM AKTS: 240		

Not: * Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. Doktora programı öğrencisi yüksek lisans programlarından ders alamaz.



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2019-2020 EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)

ANABİLİM DALI		Biyosistem Mühendisliği														
BİLİM DALI / PROGRAMI		Doktora Programı														
DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR							
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS
	BSM6001	KÜÇÜK SU HAVZALARINDA HİDROLOJİK MODELLEME	S	3	0	0	3	6	BSM6002	POROZ ORTAM HİDROLİĞİ	S	3	0	0	3	6
	BSM6003	İNFİLTASYON TEORİSİ	S	3	0	0	3	6	BSM6004	İLERİ HİDROLOJİ	S	3	0	0	3	6
	BSM6005	YERALTI SULARININ GELİŞTİRİLMESİ	S	2	2	0	3	6	BSM6006	DRENAJ MÜHENDİSLİĞİNDE SİMÜLASYON MODELLERİ	S	3	0	0	3	6
	BSM6007	YÜZEY SULAMA HİDROLİĞİ	S	3	0	0	3	6	BSM6008	İLERİ BİLGİSAYAR PROGRAMLAMA	S	3	0	0	3	6
	BSM6011	TRAKTÖR - ALET MEKANİĞİ	S	3	0	0	3	6	BSM6010	SULAMA PROJELERİNİN İZLENMESİ ve DEĞERLENDİRİLMESİ	S	3	0	0	3	6
	BSM6013	SOĞUTMA MAKİNELERİ VE ISI POMPALARININ YAPISAL ÖZELLİKLERİ ve UYGULAMALARI	S	3	0	0	3	6	BSM6012	TARIMSAL SAVAŞ MAKİNELERİNDE TASARIM	S	2	2	0	3	6
	BSM6015	BAKIM MAKİNELERİ TASARIMI	S	2	2	0	3	6	BSM6014	SULAMA MAKİNELERİ TASARIMI	S	2	2	0	3	6
	BSM6017	TARIM TEKNOLOJİLERİNDE MODELLEME İLKELERİ	S	2	2	0	3	6	BSM6020	HASAT - HARMAN MAKİNELERİNİN ÇALIŞMA PRENSİPLERİ ve TASARIMI	S	3	0	0	3	6
	BSM6023	TARIM ÜRÜNLERİNİN TAŞIMA ve İLETİMİNDE KULLANILAN MAKİNELERİN TASARIMI	S	3	0	0	3	6	BSM6022	TARIM MAKİNELERİNDE DENEY TEKNİĞİ	S	2	2	0	3	6
	BSM6027	TARIMSAL YAPILARDA ÇELİK YAPI ELEMANLARININ TASARIMI	S	3	0	0	3	6	BSM6024	TARIMSAL ÜRÜNLERDE TEMİZLEME ve SINIFLANDIRMA İLKELERİ	S	2	2	0	3	6
	BSM6029	ARAZİ TOPLULAŞTIRMASINDA DAĞITIM MODELLEMELERİ	S	3	0	0	3	6	BSM6026	İLERİ TARIMSAL ATIK YÖNETİMİ	S	3	0	0	3	6
	BSM6031	TARIMSAL KAYNAKLI KİRLİLİK ANALİZLERİ	S	3	0	0	3	6	BSM6028	BİYOLOJİK SİSTEMLERDE YAŞAM DÖNGÜSÜ DEĞERLENDİRMESİ	S	3	0	0	3	6
	BSM6033	TARIMSAL YAPILARDA AHŞAP YAPI ELEMANLARININ TASARIMI	S	3	0	0	3	6	BSM6030	KIRSAL ALAN DÜZENLENMESİNDE COĞRAFİ BİLGİ SİSTEMİ UYGULAMALARI	S	3	0	0	3	6
	BSM6035	İLERİ BİTKİ SU TÜKETİMİ MODELLEME TEKNİKLERİ	S	3	0	0	3	6	BSM6032	TOPRAK VE SU KAYNAKLARININ KORUNMASINDA ARAZİ TOPLULAŞTIRMA UYGULAMALARI	S	3	0	0	3	6
	BSM6037	KIRSAL ALAN DÜZENLEMESİ	S	3	0	0	3	6	BSM6034	TARIMSAL YAPILARDA İLERİ ÇEVRESEL KONTROL VE TASARIM	S	3	0	0	3	6
									BSM6036	HAYVANCILIK İŞLETMELERİNDE BİYOPROSES UYGULAMALARI	S	3	0	0	3	6

Not: * Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. Doktora programı öğrencisi yüksek lisans programlarından ders alamaz.

ANABİLİM DALI	Biosystem Engineering
BİLİM DALI / PROGRAMI	Doctoral Program

DERS AŞAMASI	I. TERM / FALL								II. TERM / SPRING									
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS		
	BSM6191	PHD THESIS CONSULTING I	C	0	1	0	0	1	BSM6192	PHD THESIS CONSULTING II	C	0	1	0	0	1		
	BSM6181	ADVANCED TOPICS IN PHD THESIS I	C	4	0	0	0	5	BSM6182	ADVANCED TOPICS IN PHD THESIS II	C	4	0	0	0	5		
	BSM6009	ADVANCED GEOGRAPHIC INFORMATION SYSTEMS IN HYDROLOGIC ANALYSIS	C	3	0	0	3	5	BSM6172	SEMINAR	C	0	2	0	0	4		
	BSM6025	NON - POINT SOURCE POLLUTION AND CONTROL IN AGRICULTURAL BUILDINGS	C	3	0	0	3	5										
	BSM6019	AGRICULTURAL APPLICATIONS OF WIND ENERGY	C	2	2	0	3	5										
	BSM6021	AGRICULTURAL MACHINERY IN THE MANUFACTURING OF CNC PROGRAMMING PRINCIPLES	C	3	0	0	3	5	FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	C	2	0	0	2	2		
	BSM	ELECTIVE COURSE	E					6	BSM	ELECTIVE COURSE	E					6		
	BSM	ELECTIVE COURSE	E					6	BSM	ELECTIVE COURSE	E					6		
	ELECTIVE COURSE *	E					6		ELECTIVE COURSE *	E					6			
Total Credits							12	30	Total Credits							11	30	
TEZ AŞAMASI	III. TERM / FALL								IV. TERM / SPRING									
	BSM6183	ADVANCED TOPICS IN PHD THESIS III	C	4	0	0	0	5	BSM6184	ADVANCED TOPICS IN PHD THESIS IV	C	4	0	0	0	5		
	BSM6193	PHD THESIS CONSULTING III	C	0	1	0	0	15	BSM6194	PHD THESIS CONSULTING IV	C	0	1	0	0	25		
	YET6177	PHD PROFICIENCY EXAMINATION	C	0	0	0	0	10										
	Total Credits							0	30	Total Credits							0	30
	V. TERM / FALL								VII. TERM / SPRING									
	BSM6185	ADVANCED TOPICS IN PHD THESIS V	C	4	0	0	0	5	BSM6186	ADVANCED TOPICS IN PHD THESIS VI	C	4	0	0	0	5		
	BSM6195	PHD THESIS CONSULTING V	C	0	1	0	0	25	BSM6196	PHD THESIS CONSULTING VI	C	0	1	0	0	25		
	Total Credits							0	30	Total Credits							0	30
	VII. TERM / FALL								VIII. TERM / SPRING									
BSM6187	ADVANCED TOPICS IN PHD THESIS VII	C	4	0	0	0	5	BSM6188	ADVANCED TOPICS IN PHD THESIS VIII	C	4	0	0	0	5			
BSM6197	PHD THESIS CONSULTING VII	C	0	1	0	0	25	BSM6198	PHD THESIS CONSULTING VIII	C	0	1	0	0	25			
Total Credits							0	30	Total Credits							0	30	
TOTAL CREDITS: 23 TOTAL ECTS: 240																		



BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2019-2020 ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)

ANABİLİM DALI		Biosystem Engineering														
BİLİM DALI / PROGRAMI		Doctoral Program														
DERS AŞAMASI	I. TERM / FALL								II. TERM / SPRING							
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	BSM6001	HYDROLOGIC MODELING OF SMALL WATERSHEDS	E	3	0	0	3	6	BSM6002	HYDRAULICS IN POROUS MEDIA	E	3	0	0	3	6
	BSM6003	INFILTRATION THEORY	E	3	0	0	3	6	BSM6004	ADVANCED HYDROLOGY	E	3	0	0	3	6
	BSM6005	GROUNDWATER DEVELOPMENT	E	2	2	0	3	6	BSM6006	SIMULATION MODELS IN DRAINAGE ENGINEERING	E	3	0	0	3	6
	BSM6007	SURFACE IRRIGATION HYDRAULICS	E	3	0	0	3	6	BSM6008	ADVANCED COMPUTER PROGRAMMING	E	3	0	0	3	6
	BSM6011	TRACTORS - EQUIPMENT MECHANICS	E	3	0	0	3	6	BSM6010	MONITORING AND EVALUATION OF IRRIGATION PROJECTS	E	3	0	0	3	6
	BSM6013	SPECIFICATION AND APPLICATIONS OF COOLING MACHINERY AND HEAD PUMPS	E	3	0	0	3	6	BSM6012	DESIGN OF PLANT PROTECTION MACHINERY	E	2	2	0	3	6
	BSM6015	DESIGN OF CULTIVATION MACHINERY	E	2	2	0	3	6	BSM6014	DESIGN OF IRRIGATION MACHINERY	E	2	2	0	3	6
	BSM6017	MODELING TECHNIQS IN AGRICULTURAL MACHINERY	E	2	2	0	3	6	BSM6020	DESIGN AND PRACTICAL GUIDELINES OF HARVEST AND THRESHING MACHINERY	E	3	0	0	3	6
	BSM6023	DESIGN OF TRANSPORTATION MACHINERY	E	3	0	0	3	6	BSM6022	EXPERIMENT TECHNIQUE IN AGRICULTURAL MACHINERY	E	2	2	0	3	6
	BSM6027	DESIGN OF STEEL STRUCTURES IN FARM BUILDINGS	E	3	0	0	3	6	BSM6024	SELECTING AND CLASSIFICATION PRINCIPLES OF AGRICULTURAL PRODUCTS	E	2	2	0	3	6
	BSM6029	REALLOCATION MODELS ON THE LAND CONSOLIDATION PROJECTS	E	3	0	0	3	6	BSM6026	ADVANCED AGRICULTURAL WASTE MANAGEMENT	E	3	0	0	3	6
	BSM6031	AGRICULTURAL SOURCES POLLUTION ANALYSIS	E	3	0	0	3	6	BSM6028	LIFE CYCLE ASSESSMENT IN BIOLOGICAL SYSTEMS	E	3	0	0	3	6
	BSM6033	DESIGN OF WOODEN STRUCTURES IN FARM BUILDINGS	E	3	0	0	3	6	BSM6030	GEOGRAPHIC INFORMATION SYSTEMS APPLICATIONS IN RURAL PLANNING	E	3	0	0	3	6
	BSM6035	ADVANCED TECHNIQUES IN EVAPOTRANSPIRATION MODELING	E	3	0	0	3	6	BSM6032	LAND CONSOLIDATION APPLICATIONS IN SOIL AND WATER RESOURCESCONSERVATION	E	3	0	0	3	6
BSM6037	RURAL PLANNING	E	3	0	0	3	6	BSM6034	ADVANCED ENVIROMENTAL CONTROL FOR AGRICULTURAL STRUCTURES AND DESIGN	E	3	0	0	3	6	
								BSM6036	BIOPROCESS APPLICATIONS IN ANIMAL FEEDING OPERATIONS	E	3	0	0	3	6	

Not: * Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. Doktora programı öğrencisi yüksek lisans programlarından ders alamaz.



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2019-2020 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI		Biyosistem Mühendisliği																	
BİLİM DALI / PROGRAMI		Bütünleşik Doktora Programı																	
DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR										
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS			
	BSM6191	DOKTORA TEZ DANIŞMANLIĞI I	Z	0	1	0	0	1	BSM6192	DOKTORA TEZ DANIŞMANLIĞI II	Z	0	1	0	0	1			
	BSM6181	DOKTORA UZMANLIK ALAN DERSİ I	Z	4	0	0	0	5	BSM6182	DOKTORA UZMANLIK ALAN DERSİ II	Z	4	0	0	0	5			
	BSM5009	SULAMA YÖNÜNDEN TOPRAK - BİTKİ -SU İLİŞKİLERİ (ARAZİ VE SU KAYNAKLARI BİLİM DALI)	Z	3	0	0	3	6	BSM5008	COĞRAFI BİLGİ SİSTEMİ ve DOĞAL KAYNAKLARIN YÖNETİMİ (ARAZİ VE SU KAYNAKLARI BİLİM DALI)	Z	3	0	0	3	6			
	BSM5037	TARIMSAL YAPI ELEMANLARININ TASARIMINDA İLERİ UYGULAMALAR (TARIMSAL YAPILAR BİLİM DALI)	Z	3	0	0	3	6	BSM5036	DAMIZLIK SÜT SIĞIRCILIĞI İŞLETME YAPILARININ PLANLAMA ve TASARIMI (TARIMSAL YAPILAR BİLİM DALI)	Z	3	0	0	3	6			
	BSM5017	TARIMDA ENERJİ KULLANIMI (TARIMSAL ENERJİ SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6	BSM5028	BAHÇE ve SERA TARIM MEKANİZASYONU (TARIMSAL MAKİNE SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6			
	BSM5019	TARIMSAL AMAÇLI POMPAJ TESİSLERİNİN PROJELENDİRİLMESİ (TARIMSAL MAKİNE SİSTEMLERİ BİLİM DALI)	Z	3	0	0	3	6	BSM5032	TARIM ÜRÜNLERİNİN ÖN SOĞUTULMASINDA KULLANILAN MAKİNELERİN ÇALIŞMA PRENSİBİ (TARIMSAL ENERJİ SİSTEMLERİ BİLİM DALI)	Z	2	2	0	3	6			
	BSM5	SEÇMELİ DERS	S	3	0	0	3	6	BSM5	SEÇMELİ DERS	S	3	0	0	3	6			
	BSM5	SEÇMELİ DERS	S	3	0	0	3	6	BSM5	SEÇMELİ DERS	S	3	0	0	3	6			
	SEÇMELİ DERS*	S	3	0	0	3	6		SEÇMELİ DERS*	S	3	0	0	3	6				
Toplam Kredi								12	30	Toplam Kredi								12	30
TEZ AŞAMASI	III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR										
	BSM6193	DOKTORA TEZ DANIŞMANLIĞI III	Z	0	1	0	0	1	BSM6174	SEMİNER	Z	0	2	0	0	4			
	BSM6183	DOKTORA UZMANLIK ALAN DERSİ III	S	4	0	0	0	5	FEN6000	ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ	Z	2	0	0	2	2			
	BSM6009	HİDROLOJİK ANALİZLERDE İLERİ COĞRAFI BİLGİ SİSTEMLERİ (ARAZİ VE SU KAYNAKLARI BİLİM DALI)	Z	3	0	0	3	6	BSM6194	DOKTORA TEZ DANIŞMANLIĞI IV	Z	0	1	0	0	1			
	BSM6025	TARIMSAL YAPILARDA NOKTASAL OLMAYAN KAYNAK KİRLİLİĞİ ve KONTROLÜ (TARIMSAL YAPILAR BİLİM DALI)	Z	3	0	0	3	6	BSM6184	DOKTORA UZMANLIK ALAN DERSİ IV	S	4	0	0	0	5			
	BSM6019	RÜZGAR ENERJİSİNİN TARIMSAL UYGULAMALARI (TARIMSAL	Z	2	2	0	3	6											



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2019-2020 EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)

ANABİLİM DALI		Biyosistem Mühendisliği														
BİLİM DALI / PROGRAMI		Bütünleşik Doktora Programı														
DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR							
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS
	BSM5001	TOPRAK ve SU KORUMA MÜHENDİSLİĞİ	S	3	0	0	3	6	BSM5002	DRENAJ MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ	S	3	0	0	3	6
	BSM5003	KIRSAL ALAN FİZİKSEL PLANLAMASI ve ARAZİ TOPLULAŞTIRMA İLİŞKİSİ	S	3	0	0	3	6	BSM5004	BİYOSİSTEM MÜHENDİSLİĞİNDE BİLGİSAYAR DESTEKLİ TASARIM	S	2	2	0	3	6
	BSM5005	BİYOSİSTEM MÜHENDİSLİĞİNDE KONUMSAL TEKNOLOJİLER	S	3	0	0	3	6	BSM5006	BASINÇLI SULAMA SİSTEM ve YÖNTEMLERİ	S	3	0	0	3	6
	BSM5007	KÜLTÜR BİTKİLERİNİN SULANMASI	S	3	0	0	3	6	BSM5010	SULAMA ŞEBEKELERİNDE ORGANİZASYON VE YÖNETİM	S	3	0	0	3	6
	BSM5011	ARAZİ TOPLULAŞTIRMASINDA VERİ TABANI YÖNETİMİ	S	3	0	0	3	6	BSM5012	TARIM MAKİNELERİNDE ÖLÇME TEKNİĞİ	S	2	2	0	3	6
	BSM5013	SU KAYNAKLARINDA SİSTEM MÜHENDİSLİĞİ	S	3	0	0	3	6	BSM5014	TARIMDA TERMİK MOTOR UYGULAMALARI	S	3	0	0	3	6
	BSM5015	BİYOSİSTEM MÜHENDİSLİĞİNDE İLERİ TERMODİNAMİK UYGULAMALARI	S	3	0	0	3	6	BSM5016	TOPRAK İŞLEME MAKİNELERİ TASARIMI	S	2	2	0	3	6
	BSM5021	İLERİ TARIM MAKİNELERİ İŞLETMECİLİĞİ	S	3	0	0	3	6	BSM5018	EKİM MAKİNELERİ TASARIMI	S	2	2	0	3	6
	BSM5023	TARIM TEKNOLOJİLERİNDE ARAŞTIRMA ve GELİŞTİRME	S	2	2	0	3	6	BSM5020	BİTKİSEL ÜRETİMDE HASSAS TARIM	S	3	0	0	3	6
	BSM5025	SÜT SAĞIM MEKANİZASYONU ve SÜT İŞLETME MAKİNELERİ	S	3	0	0	3	6	BSM5022	TARIM TEKNOLOJİLERİNDE BİLGİSAYAR UYGULAMALARI	S	2	2	0	3	6
	BSM5027	TARIM MAKİNELERİ SİSTEMLERİNİN ANALİZİ ve PLANLANMASI	S	3	0	0	3	6	BSM5024	TARIM TEKNOLOJİLERİNDE ERGONOMİ ve İŞ GÜVENLİĞİ	S	3	0	0	3	6
	BSM5029	BİYOLOJİK MATERYALİN TEKNİK ÖZELLİKLERİNİ BELİRLEME SİSTEMLERİ	S	2	2	0	3	6	BSM5026	TARIM MAKİNELERİ İŞLETMELERİNDE İŞ SİSTEMLERİ	S	3	0	0	3	6
BSM5031	TARIMSAL ÜRÜNLERİ KURUTMA TEKNİĞİ	S	3	0	0	3	6	BSM5030	TARIM MAKİNELERİNDE KULLANILAN MEKANİZMALARIN ANALİZ TEKNİĞİ	S	3	0	0	3	6	
BSM5033	TARIMSAL YAPILARDA İÇ ORTAM	S	3	0	0	3	6	BSM5034	TANELİ ÜRÜNLERİN DEPOLANMASI VE	S	3	0	0	3	6	

	POMPALARININ YAPISAL ÖZELLİKLERİ ve UYGULAMALARI														
BSM6015	BAKIM MAKİNELERİ TASARIMI	S	2	2	0	3	6	BSM6014	SULAMA MAKİNELERİ TASARIMI	S	2	2	0	3	6
BSM6017	TARIM TEKNOLOJİLERİNDE MODELLEME İLKELERİ	S	2	2	0	3	6	BSM6020	HASAT - HARMAN MAKİNELERİNİN ÇALIŞMA PRENSİPLERİ ve TASARIMI	S	3	0	0	3	6
BSM6023	TARIM ÜRÜNLERİNİN TAŞIMA ve İLETİMİNDE KULLANILAN MAKİNELERİN TASARIMI	S	3	0	0	3	6	BSM6022	TARIM MAKİNELERİNDE DENEY TEKNİĞİ	S	2	2	0	3	6
BSM6027	TARIMSAL YAPILARDA ÇELİK YAPI ELEMENLARININ TASARIMI	S	3	0	0	3	6	BSM6024	TARIMSAL ÜRÜNLERDE TEMİZLEME ve SINIFLANDIRMA İLKELERİ	S	2	2	0	3	6
BSM6029	ARAZİ TOPLULAŞTIRMASINDA DAĞITIM MODELLEMELERİ	S	3	0	0	3	6	BSM6026	İLERİ TARIMSAL ATIK YÖNETİMİ	S	3	0	0	3	6
BSM6031	TARIMSAL KAYNAKLI KİRLİLİK ANALİZLERİ	S	3	0	0	3	6	BSM6028	BİYOLOJİK SİSTEMLERDE YAŞAM DÖNGÜSÜ DEĞERLENDİRMESİ	S	3	0	0	3	6
BSM6033	TARIMSAL YAPILARDA AHŞAP YAPI ELEMENLARININ TASARIMI	S	3	0	0	3	6	BSM6030	KIRSAL ALAN DÜZENLENMESİNDE COĞRAFİ BİLGİ SİSTEMİ UYGULAMALARI	S	3	0	0	3	6
BSM6035	İLERİ BİTKİ SU TÜKETİMİ MODELLEME TEKNİKLERİ	S	3	0	0	3	6	BSM6032	TOPRAK VE SU KAYNAKLARININ KORUNMASINDA ARAZİ TOPLULAŞTIRMA UYGULAMALARI	S	3	0	0	3	6
BSM6037	KIRSAL ALAN DÜZENLEMESİ	S	3	0	0	3	6	BSM6034	TARIMSAL YAPILARDA İLERİ ÇEVRESEL KONTROL VE TASARIM	S	3	0	0	3	6
								BSM6036	HAYVANCILIK İŞLETMELERİNDE BİYOPROSES UYGULAMALARI	S	3	0	0	3	6

Not: *: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.

ANABİLİM DALI	Biosystem Engineering
BİLİM DALI / PROGRAMI	Integrated Doctoral Program

COURSE STAGE	I. TERM / FALL								II. TERM / SPRING								
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS	
	BSM6191	PHD THESIS CONSULTING I	C	0	1	0	0	1	BSM6192	PHD THESIS CONSULTING II	C	0	1	0	0	1	
	BSM6181	SPECIAL TOPICS IN PHD THESIS I	C	4	0	0	0	5	BSM6182	SPECIAL TOPICS IN PHD THESIS II	C	4	0	0	0	5	
	BSM5009	SOIL - PLANT-WATER RELATIONSHIPS IN IRRIGATION	C	3	0	0	3	6	BSM5008	GEOGRAPHIC INFORMATION SYSTEMS AND NATURAL RESOURCE MANAGEMENT	C	3	0	0	3	6	
	BSM5037	ADVANCED APPLICATIONS IN DESIGN OF AGRICULTURAL BUILDING STRUCTURES	C	3	0	0	3	6	BSM5036	PLANNING AND DESIGNING OF LARGE DAIRY FARMS	C	3	0	0	3	6	
	BSM5017	ENERGY USE IN AGRICULTURE	C	3	0	0	3	6	BSM5028	HORTICULTURAL AND GREENHOUSE MECHANIZATION	C	3	0	0	3	6	
	BSM5019	PROJECTS OF WATER SUPPLIER STATIONS FOR AGRICULTURAL PURPOSES	C	3	0	0	3	6	BSM5032	PRINCIPLE OF PRE-COOLING MACHINERY	C	2	2	0	3	6	
	BSM5	ELECTIVE COURSE	E	3	0	0	3	6	BSM5	ELECTIVE COURSE	E	3	0	0	3	6	
	BSM5	ELECTIVE COURSE	E	3	0	0	3	6	BSM5	ELECTIVE COURSE	E	3	0	0	3	6	
BSM5	ELECTIVE COURSE	E	3	0	0	3	6	BSM5	ELECTIVE COURSE	E	3	0	0	3	6		
Total Credits							12	30	Total Credits							12	30
THESES STAGE	I. TERM / FALL								IV. TERM / SPRING								
	BSM6183	SPECIAL TOPICS IN PHD THESIS III	C	4	0	0	0	5	BSM6174	SEMINAR	C	0	2	0	0	4	
	BSM6193	PHD THESIS CONSULTING III	C	0	1	0	0	1	BSM6194	PHD THESIS CONSULTING IV	C	0	1	0	0	1	
	BSM6009	ADVANCED GEOGRAPHIC INFORMATION SYSTEMS IN HYDROLOGIC ANALYSIS	C	3	0	0	3	5	FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	C	2	0	0	2	2	
	BSM6025	NON - POINT SOURCE POLLUTION AND CONTROL IN AGRICULTURAL BUILDINGS	C	3	0	0	3	5	BSM6184	SPECIAL TOPICS IN PHD THESIS IV	C	4	0	0	0	5	
	BSM6019	AGRICULTURAL APPLICATIONS OF WIND ENERGY	C	2	2	0	3	5									
	BSM6021	AGRICULTURAL MACHINERY IN THE MANUFACTURING OF CNC PROGRAMMING PRINCIPLES	C	3	0	0	3	5									
	BSM6	ELECTIVE COURSE	E					6	BSM6	ELECTIVE COURSE	E	3	0	0	3	6	
	BSM6	ELECTIVE COURSE	E					6	BSM6	ELECTIVE COURSE	E	3	0	0	3	6	

ELECTIVE COURSE *		E				6	ELECTIVE COURSE *		E	3	0	0	3	6			
Total Credits							12	30	Total Credits							11	30
V. TERM / FALL								VI. TERM / SPRING									
YET6177	PHD PROFICIENCY	C	0	0	0	0	5	BSM6186	SPECIAL TOPICS IN PHD THESIS VI	C	4	0	0	0	5		
BSM6185	SPECIAL TOPICS IN PHD THESIS V	C	4	0	0	0	5	BSM6196	PHD THESIS CONSULTING VI	C	0	1	0	0	25		
BSM6195	PHD THESIS CONSULTING V	C	0	1	0	0	20										
Total Credits							0	30	Total Credits							0	30
VII. TERM / FALL								VIII. TERM / SPRING									
BSM6187	SPECIAL TOPICS IN PHD THESIS VII	C	4	0	0	0	5	BSM6188	SPECIAL TOPICS IN PHD THESIS VIII	C	4	0	0	0	5		
BSM6197	PHD THESIS CONSULTING VII	C	0	1	0	0	25	BSM6198	PHD THESIS CONSULTING VIII	C	0	1	0	0	25		
Total Credits							0	30	Total Credits							0	30
IX. TERM / FALL								X. TERM / SPRING									
BSM6189	SPECIAL TOPICS IN PHD THESIS IX	C	4	0	0	0	7	BSM6190	SPECIAL TOPICS IN PHD THESIS X	C	4	0	0	0	5		
BSM6199	PHD THESIS CONSULTING IX	C	0	1	0	0	23	BSM6200	PHD THESIS CONSULTING X	C	0	1	0	0	25		
Total Credits							0	30	Total Credits							0	30
TOTAL CREDITS: 47 - TOTAL ECTS: 300																	

Not: * Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.

ANABİLİM DALI		Biosystem Engineering														
BİLİM DALI / PROGRAMI		Integrated Doctoral Program														
COURSE STAGE	I. TERM / FALL								II. TERM / SPRING							
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	BSM5001	SOIL AND WATER CONSERVATION ENGINEERING	E	3	0	0	3	6	BSM5002	RESEARCH TECHNIQUES IN DRAINAGE ENGINEERING	E	3	0	0	3	6
	BSM5003	PHYSICAL PLANNING IN RURAL AREAS AND LAND CONSOLIDATION RELATIONS	E					6	BSM5004	COMPUTER AIDED DESIGN IN BIOSYSTEMS ENGINEERING	E	2	2	0	3	6
				3	0	0	3									
	BSM5005	SPATIAL TECHNOLOGIES IN BIOSYSTEMS ENGINEERING	E	3	0	0	3	6	BSM5006	PRESSURIZED IRRIGATION SYSTEMS AND METHODS	E	3	0	0	3	6
	BSM5007	IRRIGATION OF AGRICULTURAL CROPS	E	3	0	0	3	6	BSM5010	ORGANIZATION AND MANAGEMENT OF IRRIGATION NETWORK	E	3	0	0	3	6
	BSM5011	DATABASE MANAGEMENT IN THE LAND CONSOLIDATION	E	3	0	0	3	6	BSM5012	MEASUREMENT TECHNIQUES IN AGRICULTURAL MACHINERY	E	2	2	0	3	6
	BSM5013	SYSTEM ENGINEERING IN WATER RESOURCES	E	3	0	0	3	6	BSM5014	APLICATION OF INTERNAL COMBUSTION ENGINE IN AGRICULTURE	E	3	0	0	3	6
	BSM5015	ADVANCED THERMODYNAMIC IN BIOSYSTEMS ENGINEERING	E	3	0	0	3	6	BSM5016	DESIGN OF SOIL TILLAGE MACHINERY	E	2	2	0	3	6
	BSM5021	ADVANCED AGRICULTURAL MACHINERY MANAGEMENT	E	3	0	0	3	6	BSM5018	DESIGN OF SEEDING AND PLANTING MACHINERY	E	2	2	0	3	6
	BSM5023	RESEARCH AND DEVELOPMENT IN AGRICULTURAL TECHNOLOGY	E	2	2	0	3	6	BSM5020	PRECISION AGRICULTURE IN CROP PRODUCTION	E	3	0	0	3	6
	BSM5025	DAIRY MILKING SYSTEMS AND MILK PROCESSING MACHINES	E	3	0	0	3	6	BSM5022	COMPUTER APPLICATIONS IN AGRICULTURAL TECHNOLOGY	E	2	2	0	3	6
	BSM5027	SYSTEM ANALYSIS AND PLANNING IN AGRICULTURAL MACHINERY	E	3	0	0	3	6	BSM5024	ERGONOMICS AND SAFETY IN AGRICULTURAL TECHNOLOGY	E	3	0	0	3	6
BSM5029	DETERMINATION SYSTEMS OF BIOLOGICAL MATERIAL TECHNICAL PROPERTIES	E	2	2	0	3	6	BSM5026	WORKING SYSTEMS IN AGRICULTURAL MACHINERY PLANTS	E	3	0	0	3	6	
BSM5031	DRYING METHODS OF AGRICULTURAL PRODUCTS	E	3	0	0	3	6	BSM5030	ANALYSIS TECHNIQUE OF MECHANISM IN AGRICULTURAL MACHINERY	E	3	0	0	3	6	

	BSM5033	INDOOR AIR QUALITY IN BARNs	E	3	0	0	3	6	BSM5034	BULK SOLIDS STORAGE AND HANDLING	E	3	0	0	3	6
	BSM5035	STATICALLY INDETERMINATE STRUCTURES	E	3	0	0	3	6	BSM5038	PARTICULATE MATTER POLLUTION IN AGRICULTURAL BUILDINGS	E	3	0	0	3	6
	BSM5039	WASTEWATER IRRIGATION	E	3	0	0	3	6	BSM5040	STANDARDIZATION AND QUALITY IN AGRICULTURAL TECHNOLOGY	E	3	0	0	3	6
	BSM5041	COMPUTER SIMULATION MODELS IN PLANT GROWTH AND MANAGEMENT	E	3	0	0	3	6	BSM5042	IRRIGATION SCHEDULING TECHNIQUES	E	3	0	0	3	6
	BSM5043	ODOR POLLUTION AND CONTROL IN ANIMAL BARNs	E	3	0	0	3	6	BSM5044	DATA ANALYSIS IN BIOSYSTEMS ENGINEERING	E	3	0	0	3	6
	BSM5045	HYDRAULIC CIRCUIT DESIGN AND CONTROL	E	3	0	0	3	6	BSM5046	ADVANCED GREENHOUSE DESIGN	E	3	0	0	3	6
	BSM5047	DESIGN AND MODELING OF ANIMAL BARNs	E	3	0	0	3	6	BSM5048	AGRICULTURAL APPLICATIONS OF SOLAR ENERGY	E	2	2	0	3	6
	BSM5049	DIGITAL IMAGE PROCESSING IN AGRICULTURAL TECHNOLOGIES	E	3	0	0	3	6	BSM5050	BASIC LABORATORY TECHNIQUES IN BIOSYSTEMS ENGINEERING	E	2	0	2	3	6
	BSM5051	RESEARCH TECHNIQUES IN IRRIGATION ENGINEERING	E	3	0	0	3	6	BSM5052	ADVANCED FOOD PROCESSING AND PREPARATION MECHANIZATION	E	4	0	0	4	6
	BSM5053	SCIENTIFIC PROJECT PREPARE TECHNIQUES IN BIOSYSTEMS ENGINEERING	E	4	0	0	4	6	BSM5054	COMPUTER APPLICATIONS IN LAND CONSOLIDATION PROJECTS	E	3	0	0	3	6
	BSM5055	APPLIED AGRICULTURAL DRYING	E	2	2	0	3	6								
	BSM5057	APPLIED BIOMASS ENERGIES	E	2	2	0	3	6								
	BSM5059	COMPUTER AIDED DESIGN OF MACHINE ELEMENTS USED IN AGRICULTURAL MACHINERY	E	3	0	0	3	6								
COURSE STAGE	III. TERM / FALL								IV. TERM / SPRING							
	BSM6181	ADVANCED TOPICS IN PHD THESIS I	E	4	0	0	0	5	BSM6182	ADVANCED TOPICS IN PHD THESIS II	E	4	0	0	0	5
	BSM6001	HYDROLOGIC MODELING OF SMALL WATERSHEDs	E	3	0	0	3	6	BSM6002	HYDRAULICS IN POROUS MEDIA	E	3	0	0	3	6
	BSM6003	INFILTRATION THEORY	E	3	0	0	3	6	BSM6004	ADVANCED HYDROLOGY	E	3	0	0	3	6
	BSM6005	GROUNDWATER DEVELOPMENT	E	2	2	0	3	6	BSM6006	SIMULATION MODELS IN DRAINAGE ENGINEERING	E	3	0	0	3	6
	BSM6007	SURFACE IRRIGATION HYDRAULICS	E	3	0	0	3	6	BSM6008	ADVANCED COMPUTER PROGRAMMING	E	3	0	0	3	6
	BSM6011	TRACTORS - EQUIPMENT MECHANICS	E	3	0	0	3	6	BSM6010	MONITORING AND EVALUATION OF IRRIGATION PROJECTS	E	3	0	0	3	6
	BSM6013	SPECIFICATION AND APPLICATIONS OF COOLING MACHINERY AND HEAD PUMPS	E	3	0	0	3	6	BSM6012	DESIGN OF PLANT PROTECTION MACHINERY	E	2	2	0	3	6

BSM6015	DESIGN OF CULTIVATION MACHINERY	E	2	2	0	3	6	BSM6014	DESIGN OF IRRIGATION MACHINERY	E	2	2	0	3	6
BSM6017	MODELING TECHNIQS IN AGRICULTURAL MACHINERY	E	2	2	0	3	6	BSM6020	DESIGN AND PRACTICAL GUIDELINES OF HARVEST AND THRESHING MACHINERY	E	3	0	0	3	6
BSM6023	DESIGN OF TRANSPORTATION MACHINERY	E	3	0	0	3	6	BSM6022	EXPERIMENT TECHNIQUE IN AGRICULTURAL MACHINERY	E	2	2	0	3	6
BSM6027	DESIGN OF STEEL STRUCTURES IN FARM BUILDINGS	E	3	0	0	3	6	BSM6024	SELECTING AND CLASSIFICATION PRINCIPLES OF AGRICULTURAL PRODUCTS	E	2	2	0	3	6
BSM6029	REALLOCATION MODELS ON THE LAND CONSOLIDATION PROJECTS	E	3	0	0	3	6	BSM6026	ADVANCED AGRICULTURAL WASTE MANAGEMENT	E	3	0	0	3	6
BSM6031	AGRICULTURAL SOURCES POLLUTION ANALYSIS	E	3	0	0	3	6	BSM6028	LIFE CYCLE ASSESSMENT IN BIOLOGICAL SYSTEMS	E	3	0	0	3	6
BSM6033	DESIGN OF WOODEN STRUCTURES IN FARM BUILDINGS	E	3	0	0	3	6	BSM6030	GEOGRAPHIC INFORMATION SYSTEMS APPLICATIONS IN RURAL PLANNING	E	3	0	0	3	6
BSM6035	ADVANCED TECHNIQUES IN EVAPOTRANSPIRATION MODELING	E	3	0	0	3	6	BSM6032	LAND CONSOLIDATION APPLICATIONS IN SOIL AND WATER RESOURCES CONSERVATION	E	3	0	0	3	6
BSM6037	RURAL PLANNING	E	3	0	0	3	6	BSM6034	ADVANCED ENVIRONMENTAL CONTROL FOR AGRICULTURAL STRUCTURES AND DESIGN	E	3	0	0	3	6
								BSM6036	BIOPROCESS APPLICATIONS IN ANIMAL FEEDING OPERATIONS	E	3	0	0	3	6

Not: *: Öğrenci isterse, danışmanın onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.