



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ

2022-2023 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

FR 1.1.1_02

ANABİLİM/ ANASANAT DALI

İNŞAAT MÜHENDİSLİĞİ

BİLİM/ SANAT DALI / PROGRAMI

Yüksek Lisans Programı (Tezsiz)

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
	INS5243	YAPISAL TASARIM *	Z	3	0	0	3	7,5								
		SEÇMELİ DERS	S				3	7,5		SEÇMELİ DERS	S				3	7,5
		SEÇMELİ DERS	S				3	7,5		SEÇMELİ DERS	S				3	7,5
		SEÇMELİ DERS	S				3	7,5		SEÇMELİ DERS	S				3	7,5
										SEÇMELİ DERS	S				3	7,5
	Toplam Kredi/AKTS						12	30	Toplam Kredi/AKTS						12	30
	III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR							
	INS5201	PROJE YÖNETİMİ	Z	0	2	0	0	7,5								
		SEÇMELİ DERS	S				3	7,5								
		SEÇMELİ DERS	S				3	7,5								
		SEÇMELİ DERS	S				3	7,5								
	Toplam Kredi/AKTS						9	30								

TOPLAM KREDİ: 33 - TOPLAM AKTS: 90

Anabilim/Anasanat Dalı Başkanı
(Unvan, Ad Soyad Tarih, İmza)

Enstitü Müdürü
(Unvan, Ad Soyad, Tarih, İmza)



BURSA ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2022-2023 EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)

FR 1.1.1_02

ANABİLİM/ ANASANAT DALI İNŞAAT MÜHENDİSLİĞİ
BİLİM/ SANAT DALI / PROGRAMI Yüksek Lisans Programı (Tezsiz)

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
	INS5211	ELASTİSİTE TEORİSİ	S	3	0	0	3	7,5	INS5214	BİLGİSAYAR DESTEKLİ SONLU ELEMENLAR	S	3	0	0	3	7,5
	INS5215	İLERİ MÜHENDİSLİK MEKANİĞİ	S	3	0	0	3	7,5	INS5216	KOMPOZİT MALZEMELER MEKANİĞİ	S	3	0	0	3	7,5
	INS5223	YAPILARIN STABİLİTESİ	S	3	0	0	3	7,5	INS5218	MEKANİKTE ENERJİ VE VARYASYONEL YÖNTEMLER	S	3	0	0	3	7,5
	INS5231	YAPI DİNAMİĞİ	S	3	0	0	3	7,5	INS5220	SIVI DEPOLARIN TASARIMI	S	3	0	0	3	7,5
	INS5233	İLERİ BETONARME	S	3	0	0	3	7,5	INS5222	BAŞLANGIÇ VE SINIR DEĞER PROBLEMLERİ	S	3	0	0	3	7,5
	INS5239	PERFORMANSA DAYALI TASARIM	S	3	0	0	3	7,5	INS5224	PLAK TEORİSİ	S	3	0	0	3	7,5
	INS5241	KİMYASAL KATKILAR	S	3	0	0	3	7,5	INS5230	BETONARME YAPILARIN DOĞRUSAL OLMAYAN ANALİZİ	S	3	0	0	3	7,5
	INS5247	İLERİ ÇELİK YAPILAR I	S	3	0	0	3	7,5	INS5232	YAPISAL DEPREM MÜHENDİSLİĞİ	S	3	0	0	3	7,5
	INS5245	DEPREM YALITIMLI BİNA TASARIMI	S	3	0	0	3	7,5	INS5234	YAPILARIN ONARIM VE GÜÇLENDİRİLMESİ	S	3	0	0	3	7,5
	INS5251	YERALTI SUYU HİDROLİĞİ	S	3	0	0	3	7,5	INS5236	PREFABRİKE YAPILAR	S	3	0	0	3	7,5
	INS5253	AÇIK KANAL HİDROLİĞİ	S	3	0	0	3	7,5	INS5238	MAKİNE TEMELLERİ	S	3	0	0	3	7,5
	INS5261	KIYI HİDRODİNAMİĞİ	S	3	0	0	3	7,5	INS5240	BETONARME KÖPRÜLER	S	3	0	0	3	7,5
	INS5265	KURAKLIK VE TAŞKIN HİDROLOJİSİ	S	3	0	0	3	7,5	INS5242	ÖZEL BETONLAR	S	3	0	0	3	7,5
	INS5271	YAPI-ZEMİN ETKİLEŞİMİ	S	3	0	0	3	7,5	INS5244	ENDÜSTRİYEL ÇELİK YAPILAR	S	3	0	0	3	7,5
	INS5275	DERİN KAZILAR VE DAYANMA YAPILARI	S	3	0	0	3	7,5	INS5256	HİDROLİKTE İLERİ BİLGİSAYAR UYGULAMALARI	S	3	0	0	3	7,5
	INS5281	MOTORSUZ ULAŞIM PLANLAMA VE İŞLETİMİ	S	3	0	0	3	7,5	INS5258	HİDROLOJİDE İLERİ CBS UYGULAMALARI	S	3	0	0	3	7,5
	INS5287	KENTSEL ULAŞIM SİSTEMLERİ VE PLANLAMASI	S	3	0	0	3	7,5	INS5262	HİDROLOJİDE İSTATİSTİK YÖNTEMLER	S	3	0	0	3	7,5
	INS5249	İLERİ BETON TEKNOLOJİSİ	S	3	0	0	3	7,5	INS5264	KIYI VE LİMAN YAPILARININ TASARIMI	S	3	0	0	3	7,5
									INS5266	BARAJLARIN PLANLANMASI VE TASARIMI	S	3	0	0	3	7,5
									INS5272	İLERİ TEMEL MÜHENDİSLİĞİ	S	3	0	0	3	7,5
									INS5276	ARAZİ DENEYLERİ VE GEOTEKNİK TASARIM	S	3	0	0	3	7,5
									INS5286	KAPLAMA TASARIMI VE ANALİZİ	S	3	0	0	3	7,5
									INS5288	TOPLU TAŞIMA	S	3	0	0	3	7,5
									INS5246	BETON DURABİLİTESİ	S	3	0	0	3	7,5

DERS ŞAMASI	III. YARIYIL / GÜZ															
	INS5203	YAPI-ZEMİN ETKİLEŞİMİNDE ANALİTİK YAKLAŞIMLAR	S	3	0	0	3	7,5								
	INS5205	DEPREME DAYANIKLI YAPI TASARIMI	S	3	0	0	3	7,5								
	INS5207	TARİHİ YAPILARIN DEPREM DAVRANIŞLARI	S	3	0	0	3	7,5								
	INS5213	KATI MEKANİĞİ VE SONLU ELEMAN UYGULAMALARI	S	3	0	0	3	7,5								
	INS5217	DEPREM MÜHENDİSLİĞİNDE İLERİ MATRİS METOTLAR	S	3	0	0	3	7,5								
	INS5219	TRAFİK AKIM TEORİSİ	S	3	0	0	3	7,5								
	INS5235	YIĞMA YAPILAR	S	3	0	0	3	7,5								
	INS5237	SIVI YAPI ETKİLEŞİMİ	S	3	0	0	3	7,5								
	INS5263	SU KAYNAKLI ENERJİ ÜRETİMİ	S	3	0	0	3	7,5								
	INS5277	GEOTEKNİK DEPREM MÜHENDİSLİĞİ	S	3	0	0	3	7,5								
	INS5279	ZEMİN DİNAMİĞİ VE TEMEL TASARIMI	S	3	0	0	3	7,5								



BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2022-2023. ACADEMIC YEAR COURSE PLAN

FR 1.1.1_02

DEPARTMENT OF

CIVIL ENGINEERING

DEPARTMENT / PROGRAM

Master's Degree Program (Without Thesis)

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	
	INS5243	STRUCTURAL DESIGN *	R	3	0	0	3	7,5									
		ELECTIVE COURSE	E				3	7,5		ELECTIVE COURSE	E				3	7,5	
		ELECTIVE COURSE	E				3	7,5		ELECTIVE COURSE	E				3	7,5	
		ELECTIVE COURSE	E				3	7,5		ELECTIVE COURSE	E				3	7,5	
										ELECTIVE COURSE	E				3	7,5	
Total Credits/ECTS							12	30	Total Credits/ECTS							12	30
III. TERM / FALL								IV. TERM / SPRING									
INS5201	PROJECT MANAGEMENT	R	0	2	0	0	7,5										
	ELECTIVE COURSE	E				3	7,5										
	ELECTIVE COURSE	E				3	7,5										
	ELECTIVE COURSE	E				3	7,5										
Total Credits/ECTS							9	30									

TOTAL CREDITS: 43 - TOTAL ECTS: 90

Not: The student is expected to take a total of credited (.....) elective courses every academic term.
The student have the option of choosing one selective course from another department with the endorsement of the supervisor.

Head of Department
(Title, Name and Surname, Date, Signature)

Director of Institute
(Title, Name and Surname, Date, Signature)



BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2022-2023. ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)

FR 1.1.1_02

DEPARTMENT OF

CIVIL ENGINEERING

DEPARTMENT / PROGRAM

Master's Degree Program (Without Thesis)

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
	INS5211	ELASTICITY THEORY	E	3	0	0	3	7,5	INS5214	COMPUTER AIDED FINITE ELEMENT ANALYSIS	E	3	0	0	3	7,5
	INS5215	ADVANCED ENGINEERING MECHANICS	E	3	0	0	3	7,5	INS5216	MECHANICS OF COMPOSITE MATERIALS	E	3	0	0	3	7,5
	INS5223	STABILITY OF STRUCTURES	E	3	0	0	3	7,5	INS5218	ENERGY AND VARIATIONAL METHODS IN MECHANICS	E	3	0	0	3	7,5
	INS5231	STRUCTURAL DYNAMICS	E	3	0	0	3	7,5	INS5220	LIQUID TANKS DESIGN	E	3	0	0	3	7,5
	INS5233	ADVANCED REINFORCED CONCRETE	E	3	0	0	3	7,5	INS5222	INITIAL AND BOUNDARY VALUE PROBLEMS	E	3	0	0	3	7,5
	INS5239	PERFORMANCE BASED DESIGN	E	3	0	0	3	7,5	INS5224	THEORY OF PLATES	E	3	0	0	3	7,5
	INS5241	CHEMICAL ADMIXTURES	E	3	0	0	3	7,5	INS5230	NON-LINEAR ANALYSIS OF REINFORCED CONCRETE STRUCTURES	E	3	0	0	3	7,5
	INS5247	ADVANCED STEEL DESIGN I	E	3	0	0	3	7,5	INS5232	STRUCTURAL EARTHQUAKE ENGINEERING	E	3	0	0	3	7,5
	INS5245	SEISMIC ISOLATED BUILDING DESIGN	E	3	0	0	3	7,5	INS5234	REPAIRING AND STRENGTHENING OF STRUCTURES	E	3	0	0	3	7,5
	INS5251	GROUNDWATER HYDRAULICS	E	3	0	0	3	7,5	INS5236	PREFABRICATED STRUCTURES	E	3	0	0	3	7,5
	INS5253	OPEN CHANNEL HYDRAULICS	E	3	0	0	3	7,5	INS5238	MACHINE FOUNDATIONS	E	3	0	0	3	7,5
	INS5261	COASTAL HYDRODYNAMICS	E	3	0	0	3	7,5	INS5240	REINFORCED CONCRETE BRIDGE DESIGN	E	3	0	0	3	7,5
	INS5265	HYDROLOGY OF DROUGHTS AND FLOODS	E	3	0	0	3	7,5	INS5242	SPECIAL CONCRETE	E	3	0	0	3	7,5
	INS5271	SOIL-STRUCTURE INTERACTION	E	3	0	0	3	7,5	INS5244	INDUSTRIAL STEEL STRUCTURES	E	3	0	0	3	7,5
	INS5275	DEEP EXCAVATIONS AND RETAINING STRUCTURES	E	3	0	0	3	7,5	INS5256	ADVANCED COMPUTER APPLICATIONS IN HYDRAULICS	E	3	0	0	3	7,5
	INS5281	NON-MOTORIZED TRANSPORTATION PLANNING AND OPERATION	E	3	0	0	3	7,5	INS5258	ADVANCED GIS APPLICATION IN HYDROLOGY	E	3	0	0	3	7,5
	INS5287	URBAN TRANSPORTATION SYSTEMS AND PLANNING	E	3	0	0	3	7,5	INS5262	STATISTICAL METHODS IN HYDROLOGY	E	3	0	0	3	7,5
	INS5249	ADVANCED CONCRETE TECHNOLOGY	E	3	0	0	3	7,5	INS5264	DESIGN OF PORTS AND COASTAL STRUCTURES	E	3	0	0	3	7,5
									INS5266	PLANNING AND DESIGN OF DAMS	E	3	0	0	3	7,5
									INS5272	ADVANCED FOUNDATION ENGINEERING	E	3	0	0	3	7,5
									INS5276	IN-SITU TESTS AND GEOTECHNICAL DESIGN	E	3	0	0	3	7,5
									INS5286	PAVEMENT DESIGN AND ANALYSIS	E	3	0	0	3	7,5
									INS5246	DURABILITY OF CONCRETE	E	3	0	0	3	7,5

DERS ŞAMASI	III. TERM / FALL															
	INS5203	SIMPLIFIED METHODS IN SOIL-STRUCTURE INTERACTIN	S	3	0	0	0	7,5								
	INS5205	EARTHQUAKE RESISTANT STRUCTURAL DESIGN	S	3	0	0	0	7,5								
	INS5207	SEISMIC BEHAVIOR OF HYSTORICAL BUILDINGS	S	3	0	0	0	7,5								
	INS5213	SOLID MECHANIC WITH FINITE ELEMENT APPLICATIONS	S	3	0	0	0	7,5								
	INS5217	ADVANCED MATRIX METHODS IN EARTHQUAKE ENGINEERING	S	3	0	0	0	7,5								
	INS5219	TRAFFIC FLOW THEORY	S	3	0	0	0	7,5								
	INS5235	MASONRY STRUCTURES	S	3	0	0	0	7,5								
	INS5237	FLUID STRUCTURE INTERACTION	S	3	0	0	0	7,5								
	INS5263	WATER BASED ENERGY GENERATION	S	3	0	0	0	7,5								
	INS5277	GEOTECHNICAL EARTHQUAKE ENGINEERING	S	3	0	0	0	7,5								
	INS5279	SOIL DYNAMICS AND FOUNDATION DESIGN	S	3	0	0	0	7,5								