



ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2020-2021 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI İNŞAAT MÜHENDİSLİĞİ ANABİLİM DALI
BİLİM DALI / PROGRAMI / Tezsiz Yüksek Lisans Programı

I-III YARIYIL SEÇMELİ/ GÜZ

II. YARIYIL SEÇMELİ / BAHAR

DERS AŞAMASI

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	
INS5215	İLERİ MÜHENDİSLİK MEKANİĞİ	S	3	0	0	3	7,5	INS5216	KOMPOZİT MALZEMELER MEKANİĞİ	S	3	0	0	3	
INS5223	YAPILARIN STABİLİTESİ	S	3	0	0	3	7,5	INS5218	MEKANİKTE ENERJİ VE VARYASYONEL YÖNTEMLER	S	3	0	0	3	
INS5231	YAPI DİNAMİĞİ	S	3	0	0	3	7,5	INS5220	SIVI DEPOLARIN TASARIMI	S	3	0	0	3	
INS5233	İLERİ BETONARME	S	3	0	0	3	7,5	INS5222	BAŞLANGIÇ VE SINIR DEĞER PROBLEMLERİ	S	3	0	0	3	
INS5239	PERFORMANSA DAYALI TASARIM	S	3	0	0	3	7,5	INS5224	PLAK TEORİSİ	S	3	0	0	3	
INS5241	KİMYASAL KATKILAR	S	3	0	0	3	7,5	INS5230	BETONARME YAPILARIN DOĞRUSAL OLMAYAN ANALİZİ	S	3	0	0	3	
INS5247	İLERİ ÇELİK YAPILAR I	S	3	0	0	3	7,5	INS5232	YAPISAL DEPREM MÜHENDİSLİĞİ	S	3	0	0	3	
INS5245	DEPREM YALITIMLI BİNA TASARIMI	S	3	0	0	3	7,5	INS5234	YAPILARIN ONARIM VE GÜÇLENDİRİLMESİ	S	3	0	0	3	
INS5251	YERALTI SUYU HİDROLİĞİ	S	3	0	0	3	7,5	INS5236	PREFABRİKE YAPILAR	S	3	0	0	3	
INS5253	AÇIK KANAL HİDROLİĞİ	S	3	0	0	3	7,5	INS5238	MAKİNE TEMELLERİ	S	3	0	0	3	
INS5261	KIYI HİDRODİNAMİĞİ	S	3	0	0	3	7,5	INS5240	BETONARME KÖPRÜLER	S	3	0	0	3	
INS5265	KURAKLIK VE TAŞKIN HİDROLOJİSİ	S	3	0	0	3	7,5	INS5242	ÖZEL BETONLAR	S	3	0	0	3	
INS5271	YAPI-ZEMİN ETKİLEŞİMİ	S	3	0	0	3	7,5	INS5244	ENDÜSTRİYEL ÇELİK YAPILAR	S	3	0	0	3	
INS5275	DERİN KAZILAR VE DAYANMA YAPILARI	S	3	0	0	3	7,5	INS5256	HİDROLİKTE İLERİ BİLGİSAYAR UYGULAMALARI	S	3	0	0	3	
INS5281	MOTORSUZ ULAŞIM PLANLAMA VE İŞLETİMİ	S	3	0	0	3	7,5	INS5258	HİDROLOJİDE İLERİ CBS UYGULAMALARI	S	3	0	0	3	
INS5287	KENTSEL ULAŞIM SİSTEMLERİ VE PLANLAMASI	S	3	0	0	3	7,5	INS5262	HİDROLOJİDE İSTATİSTİK YÖNTEMLER	S	3	0	0	3	
INS5243	İLERİ BETON TEKNOLOJİSİ	S	3	0	0	3	7,5	INS5264	KIYI VE LİMAN YAPILARININ TASARIMI	S	3	0	0	3	
								INS5266	BARAJLARIN PLANLANMASI VE TASARIMI	S	3	0	0	3	
								INS5272	İLERİ TEMEL MÜHENDİSLİĞİ	S	3	0	0	3	
								INS5276	ARAZİ DENEYLERİ VE GEOTEKNİK TASARIM	S	3	0	0	3	
								INS5286	KAPLAMA TASARIMI VE ANALİZİ	S	3	0	0	3	

										INS5288	TOPLU TAŞIMA	S	3	0	0	3	
III YARIYIL SEÇMELİ/ 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										

¹: I. Yarıyıl seçmeli dersleri ve ³: III. Yarıyıl seçmeli dersleri kredileridir.



**ULUDAĞ UNIVERSITY
INSTITUTE OF SCIENCE
2020-2021 ACADEMIC YEAR COURSE PLAN**

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						12	30	Total Credits						12	30
STAGE THESIS	III. TERM / FALL								IV. TERM / SPRING (*)							
	INS5201	PROJECT MANAGEMENT	Z	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						9	30	Total Credits							

TOTAL CREDITS: 33 - 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.



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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	PEFORMANCE 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 ISALOTED 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
	INS5243	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

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									

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