



ULUDAG UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2015-2016 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF Civil Engineering
DEPARTMENT / PROGRAM Civil Engineering / Master's Degree 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		
	INS5191	MSc THESIS SUPERVISION I	R	0	1	0	0	1	INS5172	SEMINAR (CLASS)	R	0	2	0	0	6		
	INS5015	ADVANCED ENGINEERING MECHANICS*	R	3	0	0	3	6	INS5192	MSc THESIS SUPERVISION II	R	0	1	0	0	1		
	INS5181	MSc SPECIALIZED FIELD COURSE I	E	4	0	0	0	5	INS5182	MSc SPECIALIZED FIELD COURSE II	E	4	0	0	0	5		
	INS5011	ELASTICITY THEORY	E	3	0	0	3	6	INS5014	COMPUTER AIDED FINITE ELEMENT ANALYSIS	E	3	0	0	3	6		
	INS5031	STRUCTURAL DYNAMICS	E	3	0	0	3	6	INS5016	MECHANICS OF COMPOSITE MATERIALS	E	3	0	0	3	6		
	INS5033	ADVANCED REINFORCED CONCRETE	E	3	0	0	3	6	INS5018	ADVANCED MATRIX METHODS IN EARTHQUAKE ENGINEERING	E	3	0	0	3	6		
	INS5035	MASONRY STRUCTURES	E	3	0	0	3	6	INS5032	STRUCTURAL EARTHQUAKE ENGINEERING	E	3	0	0	3	6		
	INS5037	PERFORMANCED BASED DESIGN	E	3	0	0	3	6	INS5034	NON-LINEAR ANALYSIS OF REINFORCED CONCRETE STRUCTURES	E	3	0	0	3	6		
	INS5051	GROUNDWATER HYDRAULICS	E	3	0	0	3	6	INS5038	REINFORCED CONCRETE BRIDGE DESIGN	E	3	0	0	3	6		
	INS5053	OPEN CHANNEL HYDRAULICS	E	3	0	0	3	6	INS5056	ADVANCED COMPUTER APPLICATIONS IN HYDRAULICS	E	3	0	0	3	6		
	INS5061	COASTAL HYDRODYNAMICS	E	3	0	0	3	6	INS5058	ADVANCED GIS APPLICATIONS IN HYDROLOGY	E	3	0	0	3	6		
	INS5063	WATER BASED ENERGY GENERATION	E	3	0	0	3	6	INS5064	DESIGN OF PORTS AND COASTAL STRUCTURES	E	3	0	0	3	6		
	INS5071	SOIL-STRUCTURE INTERACTION	E	3	0	0	3	6	INS5072	ADVANCED FOUNDATION ENGINEERING	E	3	0	0	3	6		
	INS5077	GEOTECHNICAL EARTHQUAKE ENGINEERING	E	3	0	0	3	6	INS5086	PAVEMENT DESING AND ANALYSIS	E	3	0	0	3	6		
	INS5081	NON-MOTORIZED TRANSPORTATION PLANNING AND OPERATION	E	3	0	0	3	6										
	INS5087	URBAN TRANSPORTATION SYSTEMS AND PLANNING	E	3	0	0	3	6										
	Total Credits							12	30	Total Credits							9	30

STAGE THESIS	III. TERM / FALL							IV. TERM / SPRING								
	INS5173	SEMINAR (THESIS)	R	0	2	0	0	5	INS5184	MSc SPECIALIZED FIELD COURSE IV	R	4	0	0	0	5
	INS5183	MSc SPECIALIZED FIELD COURSE III	R	4	0	0	0	5	INS5194	MSc THESIS SUPERVISION IV	R	0	1	0	0	25
	INS5193	MSc THESIS SUPERVISION III	R	0	1	0	0	20								
Total Credits			0	30						Total Credits			0	30		
TOTAL CREDITS: 21 - TOTAL ECTS: 120																

Not: The student is expected to take a total of credited selective courses every academic term.

The student have the option of choosing one selective course from another department with the endorsement of the supervisor.

- Required course for MSc students



ULUDAG UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2015-2016 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF		Civil Engineering																		
DEPARTMENT / PROGRAM		Civil Engineering / 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				
	FEN6001	RESEARCH METHODS	R	2	0	0	2	4	INS6172	SEMINAR (CLASS)	R	0	2	0	0	4				
	INS6011	SOLID MECHANIC WITH FINITE ELEMENT APPLICATIONS	R	3	0	0	3	5	INS6192	DISSERTATION SUPERVISION II	R	0	1	0	0	1				
	INS6191	DISSERTATION SUPERVISION I	R	0	1	0	0	1												
	INS6031	SIMPLIFIED METHODS IN SOIL STRUCTURE INTERACTION	E	3	0	0	3	5	INS6016	ENERGY AND VARIATIONAL METHODS IN MECHANICS	E	3	0	0	3	5				
	INS6033	EARTHQUAKE RESISTANT STRUCTURAL DESIGN	E	3	0	0	3	5	INS6032	LIQUID TANKS DESIGN	E	3	0	0	3	5				
	INS6035	SEISMIC BEHAVIOUR OF HISTORICAL BUILDINGS	E	3	0	0	3	5	INS6034	REPAIRING AND STRENGTHENING OF STRUCTURES	E	3	0	0	3	5				
	INS6037	FLUID STRUCTURE INTERACTION	E	3	0	0	3	5	INS6036	PREFABRICATED STRUCTURES	E	3	0	0	3	5				
	INS6051	ADVANCED GROUNDWATER HYDROLOGY	E	3	0	0	3	5	INS6038	MACHINE FOUNDATIONS	E	3	0	0	3	5				
	INS6053	COMPUTATIONAL FLUID DYNAMICS	E	3	0	0	3	5	INS6052	ADVANCED FLUID MECHANICS	E	3	0	0	3	5				
	INS6061	WIND/WAVE CLIMATE AND STATISTICS	E	3	0	0	3	5	INS6062	STATISTICAL METHODS IN HYDROLOGY	E	3	0	0	3	5				
INS6077	SOIL DYNAMICS AND FOUNDATION DESIGN	E	3	0	0	3	5	INS6088	PUBLIC TRANSPORTATION	E	3	0	0	3	5					
INS6181	PHD SPECIALIZED FIELD COURSE I	E	4	0	0	0	5	INS6182	PHD SPECIALIZED FIELD COURSE II	E	4	0	0	0	5					
Toplam Kredi								14	30	Toplam Kredi								12	30	
STAGE THESIS	III. TERM / FALL								IV. TERM / SPRING											
	YET6177	PHD PROFICIENCY EXAMINATION	R	0	0	0	0	10	INS6174	SEMINAR (THESIS)	Z	0	2	0	0	5				
	INS6183	PHD SPECIALIZED FIELD COURSE III	R	4	0	0	0	5	INS6184	PHD SPECIALIZED FIELD COURSE IV	Z	4	0	0	0	5				
	INS6193	DISSERTATION SUPERVISION III	R	0	1	0	0	15	INS6194	DISSERTATION SUPERVISION IV	Z	0	1	0	0	20				
	Toplam Kredi								0	30	Toplam Kredi								0	30
	V. TERM / FALL								VI. TERM / SPRING											
	ENS6121	DEVELOPMENT AND LEARNING	R	3	0	0	0	5	ENS6122	PLANNING AND EVALUATION IN EDUCATION	R	3	2	0	0	5				
	INS6185	PHD SPECIALIZED FIELD COURSE V	R	4	0	0	0	5	INS6186	PHD SPECIALIZED FIELD COURSE VI	R	4	0	0	0	5				
	INS6195	DISSERTATION SUPERVISION V	R	0	0	0	0	20	INS6196	DISSERTATION SUPERVISION VI	R	0	1	0	0	20				
	Toplam Kredi								0	30	Toplam Kredi								0	30
	VII. TERM / FALL								VIII. TERM / SPRING											
	INS6187	PHD SPECIALIZED FIELD COURSE VII	R	4	0	0	0	5	INS6188	PHD SPECIALIZED FIELD COURSE VIII	R	4	0	0	0	5				
INS6197	DISSERTATION SUPERVISION VII	R	0	1	0	0	25	INS6198	DISSERTATION SUPERVISION VIII	R	0	1	0	0	25					
Toplam Kredi								0	30	Toplam Kredi								0	30	
TOTAL CREDITS: 26 - TOTAL ECTS: 240																				



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DEPARTMENT OF	Civil Engineering
DEPARTMENT / PROGRAM	Civil Engineering /The Non-thesis Master's Degree 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
	INS5215	ADVANCED ENGINEERING MECHANICS	R	3	0	0	3	7,5								
	INS5211	ELASTICITY THEORY	E	3	0	0	3	7,5	INS5214	COMPUTER AIDED FINITE ELEMENT ANALYSIS	E	3	0	0	3	7,5
	INS5231	STRUCTURAL DYNAMICS	E	3	0	0	3	7,5	INS5216	MECHANICS OF COMPOSITE MATERIALS	E	3	0	0	3	7,5
	INS5233	ADVANCED REINFORCED CONCRETE	E	3	0	0	3	7,5	INS5218	ENERGY AND VARIATIONAL METHODS IN MECHANICS	E	3	0	0	3	7,5
	INS5239	PERFORMANCE BASED DESIGN	E	3	0	0	3	7,5	INS5220	LIQUID TANKS DESIGN	E	3	0	0	3	7,5
	INS5251	GROUNDWATER HYDRAULICS	E	3	0	0	3	7,5	INS5230	NON-LINEAR ANALYSIS OF REINFORCED CONCRETE STRUCTURES	E	3	0	0	3	7,5
	INS5253	OPEN CHANNEL HYDRAULICS	E	3	0	0	3	7,5	INS5232	STRUCTURAL EARTHQUAKE ENGINEERING	E	3	0	0	3	7,5
	INS5261	COASTAL HYDRODYNAMICS	E	3	0	0	3	7,5	INS5234	REPAIRING AND STRENGTHENING OF STRUCTURES	E	3	0	0	3	7,5
	INS5271	SOIL-STRUCTURE INTERACTION	E	3	0	0	3	7,5	INS5236	PREFABRICATED STRUCTURES	E	3	0	0	3	7,5
	INS5281	NON-MOTORIZED TRANSPORTATION PLANNING AND OPERATION	E	3	0	0	3	7,5	INS5238	MACHINE FOUNDATIONS	E	3	0	0	3	7,5
	INS5287	URBAN TRANSPORTATION SYSTEMS AND PLANNING	E	3	0	0	3	7,5	INS5240	REINFORCED CONCRETE BRIDGE DESIGN	E	3	0	0	3	7,5
									INS5256	ADVANCED COMPUTER APPLICATIONS IN HYDRAULICS	E	3	0	0	3	7,5
									INS5258	ADVANCED GIS APPLICATIONS IN HYDROLOGY	E	3	0	0	3	7,5
									INS5262	STATISTICAL METHODS IN HYDROLOGY	E	3	0	0	3	7,5
									INS5264	DESIGN OF PORTS AND COASTAL STRUCTURES	E	3	0	0	3	7,5
									INS5272	ADVANCED FOUNDATION ENGINEERING	E	3	0	0	3	7,5
									INS5286	PAVEMENT DESIGN AND ANALYSIS	E	3	0	0	3	7,5

								INS5288	PUBLIC TRANSPORTATION	E	3	0	0	3	7,5				
Total Credits								12	30	Total Credits								12	30
COURSE STAGE	III. TERM / FALL								IV. TERM / SPRING										
	INS5201	PROJECT MANAGEMENT	Z	0	2	0	0	7,5											
	INS5203	SIMPLIFIED METHODS IN SOIL STRUCTURE INTERACTION	E	3	0	0	3	7,5											
	INS5205	EARTHQUAKE RESISTANT STRUCTURAL DESIGN	E	3	0	0	3	7,5											
	INS5207	SEISMIC BEHAVIOUR OF HISTORICAL BUILDINGS	E	3	0	0	3	7,5											
	INS5213	SOLID MECHANIC WITH FINITE ELEMENT APPLICATIONS	E	3	0	0	3	7,5											
	INS5217	ADVANCED MATRIX METHODS IN EARTHQUAKE ENGINEERING	E	3	0	0	3	7,5											
	INS5219	TRAFFIC FLOW THEORY	E	3	0	0	3	7,5											
	INS5235	MASONRY STRUCTURES	E	3	0	0	3	7,5											
	INS5237	FLUID STRUCTURE INTERACTION	E	3	0	0	3	7,5											
	INS5263	WATER BASED ENERGY GENERATION	E	3	0	0	3	7,5											
	INS5277	GEOTECHNICAL EARTHQUAKE ENGINEERING	E	3	0	0	3	7,5											
	INS5279	SOIL DYNAMICS AND FOUNDATION DESIGN	E	3	0	0	3	7,5											
	INS5283	TRANSPORTATION SYSTEM ANALYSIS	E	3	0	0	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 selective courses every academic term.
The student have the option of choosing one elective course from another department with the endorsement of the supervisor.