



AFYON KOCATEPE UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF CIVIL ENGINEERING



MASTER (MSc) PROGRAM

FIRST YEAR

FIRST SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
INS-5501	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
INS-5601	THESIS PREPARATION	C	0	1	1	0	1	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
TOTAL			20	1	21	12	30	

SECOND SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
INS-5502	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
INS-5602	THESIS PREPARATION	C	0	1	1	0	1	
INS-5701	SEMINAR	C	0	2	2	0	5	
INS-5001	ENGINEERING MATHEMATICS	C	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
TOTAL			17	3	20	9	30	



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SECOND YEAR

THIRD SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
INS-5503	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
INS-5603	THESIS	C	0	1	1	0	21	
TOTAL			8	1	9	0	30	

FOURTH SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
INS-5504	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
INS-5604	THESIS	C	0	1	1	0	21	
TOTAL			8	1	9	0	30	

ELECTIVE COURSES

COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*				
			TH	AP	TO	CR	EC
FBE-5001	SCIENTIFIC RESEARCH AND METHODS	C	3	0	3	3	5
INS-5002	ADVANCED CONCRETE TECHNOLOGY	E	3	0	3	3	5
INS-5003	COMPOSITE MATERIALS IN CONSTRUCTION	E	3	0	3	3	5
INS-5004	DURABILITY OF REINFORCED CONCRETE STRUCTURES	E	3	0	3	3	5
INS-5005	METALLIC BUILDING MATERIALS	E	3	0	3	3	5
INS-5006	EARTHQUAKE ENGINEERING	E	3	0	3	3	5
INS-5008	TERMS OF SEISMIC EVALUATION OF EXISTING STRUCTURES	E	3	0	3	3	5
INS-5009	HUMAN FACTOR IN PRODUCTION	E	3	0	3	3	5
INS-5010	BITUMINOUS MIXTURES	E	3	0	3	3	5
INS-5011	LOW VOLUME ROADS	E	3	0	3	3	5
INS-5012	PAVEMENT MANAGEMENT	E	3	0	3	3	5
INS-5013	ROAD ENGINEERING AND APPLICATIONS OF GEOTECHNICAL	E	3	0	3	3	5
INS-5014	USE OF INDUSTRIAL WASTE CONCRETE	E	3	0	3	3	5



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INS-5015	BINDING MATERIALS	E	3	0	3	3	5
INS-5016	BUILDINGS ENERGY CONSERVATION	E	3	0	3	3	5
INS-5017	INTERNAL STRUCTURE AND PROPERTIES OF BUILDING MATERIALS	E	3	0	3	3	5
INS-5018	ECOLOGICAL MATERIALS	E	3	0	3	3	5
INS-5019	ADVANCED BUILDING PHYSICS	E	3	0	3	3	5
INS-5021	FLOOD CONTROL	E	3	0	3	3	5
INS-5022	ENGINEERING PROPERTIES OF SOILS	E	3	0	3	3	5
INS-5023	EXPERIMENTAL SOIL MECHANICS	E	3	0	3	3	5
INS-5024	SOIL IMPROVEMENT	E	3	0	3	3	5
INS-5025	FOUNDATION ENGINEERING	E	3	0	3	3	5
INS-5026	THEORY OF ELASTICITY	E	3	0	3	3	5
INS-5029	CONCRETE ROADS AND DESIGN PRINCIPLES	E	3	0	3	3	5
INS-5030	TRAFFIC ENGINEERING AND APPLICATIONS	E	3	0	3	3	5
INS-5031	TRANSPORTATION PLANNING	E	3	0	3	3	5
INS-5032	CONCRETE ADDITIVES	E	3	0	3	3	5
INS-5033	REINFORCEMENT CORROSION IN REINFORCED CONCRETE STRUCTURES	E	3	0	3	3	5
INS-5034	CUSTOM DESIGN OF CONCRETE AND DURABILITY	E	3	0	3	3	5
INS-5035	HIGHWAY SAFETY DESIGN PRINCIPLES	E	3	0	3	3	5
INS-5037	PREVENTIVE MAINTENANCE ASPHALT PAVEMENTS	E	3	0	3	3	5
INS-5038	RAIL SYSTEMS	E	3	0	3	3	5
INS-5039	IMAGE PROCESSING ENGINEERING	E	3	0	3	3	5
INS-5042	STRUCTURAL DAMAGES AND SOLUTIONS	E	3	0	3	3	5
INS-5043	ADVANCED STRUCTURAL ANALYSIS	E	3	0	3	3	5
INS-5045	USE OF REINFORCED CONCRETE AND STEEL BUILDING PROGRAM	E	3	0	3	3	5
INS-5046	INSULATION APPLICATION	E	3	0	3	3	5
INS-5047	CONSTRUCTION WASTE RECYCLING	E	3	0	3	3	5
INS-5048	CONSTRUCTION RAW MATERIALS	E	3	0	3	3	5
INS-5050	VISCOELASTICITY	E	3	0	3	3	5
INS-5051	FRACTURE STRAIN RELATIONS	E	3	0	3	3	5
INS-5055	GROUNDWATER HYDRAULICS	E	3	0	3	3	5
INS-5056	HYDRAULIC DESIGN OF DAMS	E	3	0	3	3	5
INS-5058	CONCRETE BEHAVIOR	E	3	0	3	3	5



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INS-5059	GEOMETRICAL DESIGN OF RAILWAYS	E	3	0	3	3	5
INS-5060	GEOMETRICAL DESIGN OF HIGHWAYS	E	3	0	3	3	5
INS-5061	SUSTAINABILITY IN TRANSPORTATION SYSTEM	E	3	0	3	3	5
INS-5062	PAVEMENT DESIGN	E	3	0	3	3	5
INS-5063	FIRE RESISTANCE OF STRUCTURES	E	3	0	3	3	5
INS-5064	DESIGN OF TIMBER STRUCTURES ACCORDING TO EUROCODE 5	E	3	0	3	3	5
INS-5070	COMPUTER AIDED MODELING OF GROUNDWATER	E	3	0	3	3	5
INS-5071	ARTIFICIAL NEURAL NETWORKS AND CIVIL ENGINEERING APPLICATIONS	E	3	0	3	3	5
INS-5072	FLOOD HYDROLOGY	E	3	0	3	3	5
INS-5074	POLYMER MATERIALS IN CONSTRUCTION	E	3	0	3	3	5
INS-5075	THEORY OF PLATES	E	3	0	3	3	5
INS-5076	THEORY OF SHELL	E	3	0	3	3	5
INS-5077	PLASTIC ANALYSIS OF STRUCTURES	E	3	0	3	3	5
INS-5079	FINITE ELEMENT METHOD	E	3	0	3	3	5
INS-5081	FUZZY LOGIC AND CIVIL ENGINEERING APPLICATIONS	E	3	0	3	3	5
INS-5082	ARTIFICIAL INTELIGENCE AND CIVIL ENGINEERING APPLICATIONS	E	3	0	3	3	5
INS-5083	ANALYSIS OF HYDROMETRIC DATA	E	3	0	3	3	5
INS-5084	MODELLING OF HYDROLOGICAL PROCESSES	E	3	0	3	3	5
INS-5085	HYDROLOGICAL ANALYSIS WITH NATURAL ALGORITHM SIMULATION	E	3	0	3	3	5
INS-5086	OPTIMIZATION OF WATER RESOURCES SYSTEMS	E	3	0	3	3	5
INS-5088	LIGHTWEIGHT CONCRETE TECHNOLOGY	E	3	0	3	3	5
INS-5089	HYDROLOGICAL MODELING USING REMOTE SENSING	E	3	0	3	3	5
INS-5092	ADDITIVE MANUFACTURING IN CONSTRUCTION	E	3	0	3	3	5