MAIN ELECTIVE COURSES* [(3-0) 3] (BLUE TABLE)

Original Program initiated in 2009-2 (METU Senate-YÖK) and Revised by the Board of GSNAS (FBE) (06.02.2013)

***Elective courses are groupped under the ESS Tracks and advised as free electives. Some of the courses are contemporaneously included in different tracks.**

Track 1: Earth System Science	Track 2: Earth System Modeling	Track 3: Energy, Environmental Economics and Policy
AEE 551 Introduction to Space Sciences	AEE 541 Advanced Computational Fluid Dynamics	BA 6505 Applied Regression Analysis
BIOL 571 Advanced Ecology	CE 515 Adjustment of Observations	BA 6507 Applied Time Series and Panel Data analysis
BIOL 574 Major Concepts in Ecology	CE 530 Modelling in Hydrology	BIOL 707 Societal Dependence on Natural Ecosystems
BIOL 587 Plant Biodiversity and Conservation	CE 531 Advanced Hydrology I	CP 550 Solar Energy and Urban Planning
BIOL 588 Biodiversity and Habitat Conservation	CE 599 Ground Water Hydaulics	ENVE 707 Energy and the Environment
BIOL 714 Freshwater Ecology	CE 728 Geotechnical Earthquake Eng.	ECON 608 Computable General Equilibrium Models
BIOL 744 Paleoecology	CE 761 Marine Hazards and Tsunami	GEOE 530 Economics of Energy Resources
CE 530 Modeling in Statistical Hydrology	CHE 551 Applied Data Analysis Techniques	GGIT 535 Information Systems for Natural Resource Management
CE 531 Advanced Hydrology I	ES 508 Statistical Methods for Eng.	IR 580 Governance in Trans-boundary Water Systems
CE 599 Groundwater Hydraulics	ES 516 Spectral Methods	IR 669 Law of the Marine Environment Systems
CE 5701 Hydroclimatology	ES 554 Nonlinear Dynamics	PETE 519 World Energy Sources
CE 741Seismic Hazard Assesments	ES 571 Basic Principles of Fluid Mechanics	PHYS 573 Physics of Solar Energy
CHEM 589 Atmospheric Chemistry	ES 572 Advanced Fluid Mechanics	
ENVE 513 Topics in Atmospheric Chemistry	ES 702 Geophysical Fluid Dynamics	
ENVE 538 Advanced Environmental Chemistry	ENVE 502 Modeling Soil and Ground Water Pollution	
GEOE 506 Advanced Photogeology	GEOE 517 Advanced Geostatistics	
GEOE 515 Advanced Geochemistry	GEOE 544 Stability of Soil Slopes in Eng. Practice	
GEOE 545 Applied Sedimentology	GEOE 555 Principles and Appl. of Imaging Radar Systems	
GEOE 550 Applied Geophysics	GEOE 559 GIS Models in Natural Hazard Assessment	
GEOE 568 Paleoclimatology	GEOE 567 Groundwater Contamination	
MASC 512 Chemical Oceanography	GEOE 614 Groundwater systems Plan and Management	
MASC 530 Int. To Physical Oceanography	GEOE 616 Geochemistry of Natural Waters	
MASC 571 Marine Ecology	GGIT 538 Spatial Data Analysis	
MASC 583 Marine Geology	GGIT 560 Principles of Remote Sensing	
PHYS 573 Physics of Solar Energy	GGIT 562 Integration of Remote Sensing and GIS	

ADVISED ELECTIVE COURSES* : [(3-0) 3] (GREEN TABLE)

*** Maximum 2 (two) elective courses [including the courses in the Green Table (Advised by ESS Academic Board (15.05.2013)] and the courses from other departments/programmes (Approved by the Board of GSNAS (FBE) (25.09.2013)] can be elected by the approval of the student's advisor and ESS Administrative Board.**

BIOL 739 Systematic Conservation Planning	CE 594 Modeling of Coastal Engineering Problems	EE 710 Electricity Trading
CE 595 Coastal Sedimentation	CE 595 Coastal Sedimentation	EUS 513 European Union Environment and Natural Resources Policy
CE 596 Coastal Pollution	CE 596 Coastal Pollution	IR 568 Ocean Politics and Law
	GGIT 535 Information Systems for Natural Resource Management	
	GGIT 561 Digital Image Analysis	
	IS 782 Principals of Geospatial Information Technologies	
	STAT 551 Probability and Statistics I	
	STAT 552 Probability and Statistics II	

Department Codes:	AEE: 572	BA: 312	BIOL: 238	CE: 562	CHE: 563	CHEM: 234	CP: 853	ECON: 311	EE: 567	ENVE: 560
ES: 561	EUS: 833	GEOE: 564	GGIT: 865	IR: 314	IS: 901	MASC: 950	PETE: 566	PHIL: 241	PHYS: 230	STAT: 246