

## 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 grouped 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 BIOL 571 Advanced Ecology BIOL 574 Major Concepts in Ecology BIOL 587 Plant Biodiversity and Conservation BIOL 588 Biodiversity and Habitat Conservation BIOL 714 Freshwater Ecology BIOL 744 Paleoecology CE 530 Modeling in Statistical Hydrology CE 531 Advanced Hydrology I CE 599 Groundwater Hydraulics CE 5701 Hydroclimatology CE 741 Seismic Hazard Assessments CHEM 589 Atmospheric Chemistry ENVE 513 Topics in Atmospheric Chemistry ENVE 538 Advanced Environmental Chemistry GEOE 506 Advanced Photogeology GEOE 515 Advanced Geochemistry GEOE 545 Applied Sedimentology GEOE 550 Applied Geophysics GEOE 568 Paleoclimatology MASC 512 Chemical Oceanography MASC 530 Int. To Physical Oceanography MASC 571 Marine Ecology MASC 583 Marine Geology PHYS 573 Physics of Solar Energy BIOL 577 Eutrophication & Restoration Of Lake Ecosystem BIOL 756 Community Ecology	AEE 541 Advanced Computational Fluid Dynamics CE 515 Adjustment of Observations CE 530 Modelling in Hydrology CE 531 Advanced Hydrology I CE 599 Ground Water Hydraulics CE 728 Geotechnical Earthquake Eng. CE 761 Marine Hazards and Tsunami CHE 551 Applied Data Analysis Techniques ES 508 Statistical Methods for Eng. ES 516 Spectral Methods ES 554 Nonlinear Dynamics ES 571 Basic Principles of Fluid Mechanics ES 572 Advanced Fluid Mechanics ES 702 Geophysical Fluid Dynamics ENVE 502 Modeling Soil and Ground Water Pollution GEOE 517 Advanced Geostatistics GEOE 544 Stability of Soil Slopes in Eng. Practice GEOE 555 Principles and Appl. of Imaging Radar Systems GEOE 559 GIS Models in Natural Hazard Assessment GEOE 567 Groundwater Contamination GEOE 614 Groundwater systems Plan and Management GEOE 616 Geochemistry of Natural Waters GGIT 538 Spatial Data Analysis GGIT 560 Principles of Remote Sensing GGIT 562 Integration of Remote Sensing and GIS BIOL 577 Eutrophication & Restoration Of Lake Ecosystem BIOL 756 Community Ecology	BA 6505 Applied Regression Analysis BA 6507 Applied Time Series and Panel Data analysis BIOL 707 Societal Dependence on Natural Ecosystems CP 550 Solar Energy and Urban Planning ENVE 707 Energy and the Environment ECON 608 Computable General Equilibrium Models GEOE 530 Economics of Energy Resources GGIT 535 Information Systems for Natural Resource Management IR 580 Governance in Trans-boundary Water Systems IR 669 Law of the Marine Environment Systems PETE 519 World Energy Sources PHYS 573 Physics of Solar Energy

## 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 Coastal Sedimentation CE 595 Coastal Pollution  8740709 ENERGY FINANCE(ENERJİ FİNANSI)dersini Elective (Advised) Courses ders kategorisinde öğrencilerimiz alabilecektir  8740710 ENERGY REGULATION and POLICY dersini Elective (Advised) Courses ders kategorisinde öğrencilerimiz alabilecektir	CE 594 Modeling of Coastal Engineering Problems CE 595 Coastal Sedimentation CE 596 Coastal Pollution 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	EE 710 Electricity Trading EUS 513 European Union Environment and Natural Resources Policy IR 568 Ocean Politics and Law
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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