



**ULUDAĞ UNIVERSITY**  
**INSTITUTE OF NATURAL SCIENCES**  
**2017-2018 ACADEMIC YEAR COURSE PLAN**

DEPARTMENT OF

Biology

DEPARTMENT / PROGRAM

Biology / 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 |
|              | BIO5181        | ADVANCED TOPICS IN MA THESIS I                               | C    | 4 | 0 | 0 | 0      | 5    | BIO5182           | ADVANCED TOPICS IN MA THESIS II                          | C    | 4 | 0 | 0 | 0      | 5    |
|              | BIO5191        | MA THESIS I  | C    | 0 | 1 | 0 | 0      | 1    | BIO5192           | MA THESIS II   | C    | 0 | 1 | 0 | 0      | 1    |
|              | BIO5101        | RESEARCH METHODS IN BOTANY<br>(BOTANY SECTION)               | C    | 3 | 0 | 0 | 3      | 6    | BIO5172           | SEMINAR  | C    | 0 | 2 | 0 | 0      | 4    |
|              | BIO5201        | ADVANCED BIOMETRY (GENERAL<br>BIOLOGY SECTION)               | C    | 3 | 0 | 0 | 3      | 6    | BIO5602           | LANDSCAPE ECOLOGY (ECOLOGY<br>SECTION)                   | C    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5301        | EUTROFICATION AND POLLUTION<br>(HYDROBIOLOGY SECTION)        | C    | 3 | 0 | 0 | 3      | 6    | BIO5000           | RESEARCH TECHNIQUES and<br>PUBLICATION ETHICS in BIOLOGY | C    | 2 | 0 | 0 | 2      | 2    |
|              | BIO5401        | MOLECULAR BIOLOGY OF THE CELL<br>(MOLECULAR BIOLOGY SECTION) | C    | 3 | 0 | 0 | 3      | 6    |                   |  |      |   |   |   |        |      |
|              | BIO5501        | PRINCIPLES OF TAXONOMIC ZOOLOGY<br>(ZOOLOGY SECTION)         | C    | 3 | 0 | 0 | 3      | 6    |                   |  |      |   |   |   |        |      |
|              |                | <b>ELECTIVE COURSES IN SECTIONS</b>                          |      |   |   |   |        |      |                   | <b>ELECTIVE COURSES IN SECTIONS</b>                      |      |   |   |   |        |      |
|              | BIO5103        | PRINCIPLES OF PLANT SYSTEMATICS                              | E    | 3 | 0 | 0 | 3      | 6    | BIO5102           | AEROPALYNOLOGY   | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5105        | SYMBIOSIS  | E    | 3 | 0 | 0 | 3      | 6    | BIO5104           | ETHNOBOTANIC   | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5111        | POLLEN MORPHOLOGY  | E    | 3 | 0 | 0 | 3      | 6    | BIO5106           | VEGETATION OF TURKEY                                     | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5113        | PLANT IDENTIFICATION AND<br>CLASSIFICATION I                 | E    | 3 | 0 | 0 | 3      | 6    | BIO5108           | THE PRINCIPLES OF LICHENS<br>IDENTIFICATION              | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5115        | LICHENOLOGY  | E    | 3 | 0 | 0 | 3      | 6    | BIO5110           | PLANT IDENTIFICATION AND<br>CLASSIFICATION II            | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5117        | NUMERICAL METHODS IN TAXONOMY                                | E    | 3 | 0 | 0 | 3      | 6    | BIO5114           | FORENSIC PALYNOLOGY                                      | E    | 2 | 0 | 2 | 3      | 6    |
|              | BIO5203        | MICROBIAL ECOLOGY  | E    | 3 | 0 | 0 | 3      | 6    | BIO5116           | BOTANY FIELD APPLICATION                                 | E    | 2 | 2 | 0 | 3      | 6    |
|              | BIO5205        | SYSTEMATIC MYCOLOGY  | E    | 3 | 0 | 0 | 3      | 6    | BIO5118           | ENDEMIC AND RARE PLANTS OF<br>TURKEY                     | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5207        | THE PRINCIPLES OF MYXOMYCETES                                | E    | 3 | 0 | 0 | 3      | 6    | BIO5120           | RECOGNITION OF DECIDUOUS TREES<br>IN WINTER              | S    | 2 | 2 | 0 | 3      | 6    |
|              | BIO5209        | ONCOGENES AND CARCINOGENESIS                                 | E    | 3 | 0 | 0 | 3      | 6    | BIO5200           | BIOLOGY OF FUNGI AND MOLDS                               | E    | 3 | 0 | 0 | 3      | 6    |
|              | BIO5211        | ECOTOXICOLOGY  | E    | 3 | 0 | 0 | 3      | 6    | BIO5202           | BASIC PRINCIPLES OF GENETIC<br>ANALYSIS                  | E    | 3 | 0 | 0 | 3      | 6    |

|                      |  |   |   |   |   |   |           |           |   |   |   |   |   |   |   |           |           |
|----------------------|--|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|
| BIO5213              | FREE RADICALS IN BIOLOGY                         | E | 3 | 0 | 0 | 3 | 6         | BIO5204   | CHROMOSOME STRUCTURE AND FUNCTIONS                          | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5303              | LIMNOLOGICAL ANALYSIS                            | E | 3 | 0 | 0 | 3 | 6         | BIO5206   | ECOGENETICS   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5307              | STREAM BIOLOGY AND ECOLOGY                       | E | 3 | 0 | 0 | 3 | 6         | BIO5208   | STEM CELL BIOLOGY   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5309              | BASIC STATISTICAL CONCEPTS IN ECOLOGY            | E | 3 | 0 | 0 | 3 | 6         | BIO5210   | MOLECULAR TOXICOLOGY  | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5403              | MECHANISM OF ENZYME ACTIONS                      | E | 3 | 0 | 0 | 3 | 6         | BIO5212   | PLANT PATHOGENIC FUNGI                                      | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5405              | PROTEIN BIOCHEMISTRY                             | E | 3 | 0 | 0 | 3 | 6         | BIO5300   | BIOCHEMICAL APPROACHES IN PHYCOLOGY                         | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5407              | METHODS IN MOLECULAR BIOLOGY                     | E | 3 | 0 | 0 | 3 | 6         | BIO5302   | ECONOMIC ALGAE AND THEIR UTILIZATIONNS                      | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5409              | MICROBIAL PHYSIOLOGY                             | E | 3 | 0 | 0 | 3 | 6         | BIO5304   | ALGAL CULTURES AND PHYTOPLANKTON ECOLOGY                    | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5411              | APPLIED TECHNIQUES IN GENERAL MICROBIOLOGY       | E | 2 | 2 | 0 | 3 | 6         | BIO5400   | CARBOHYDRATE BIOCHEMISTRY                                   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5417              | FUNCTIONAL GENOMICS                              | E | 3 | 0 | 0 | 3 | 6         | BIO5402   | ANIMAL CELL CULTURE   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5419              | GENE TRANSFER METHODS AND VECTORS                | E | 3 | 0 | 0 | 3 | 6         | BIO5404   | MOLECULAR BIOLOGY OF THE GENE                               | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5503              | PROTOZOOLOGY                                     | E | 3 | 0 | 0 | 3 | 6         | BIO5406   | PLANT MOLECULAR BIOLOGY                                     | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5505              | BIOLOGY OF REPTILES                              | E | 3 | 0 | 0 | 3 | 6         | BIO5408   | NUCLEIC ACIDS METABOLISM                                    | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5509              | PROPERTIES OF SKELETAL MUSCLE AND STRUCTURES     | E | 3 | 0 | 0 | 3 | 6         | BIO5410   | INTRODUCTION TO MODERN BIOCHEMICAL                          | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5511              | FISH PARASITOLOGY                                | E | 3 | 0 | 0 | 3 | 6         | BIO5500   | PHYSIOLOGY OF DIGESTIVE SYSTEM                              | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5513              | ECOLOGY OF FISHES                                | E | 3 | 0 | 0 | 3 | 6         | BIO5502   | FIELD STUDIES IN ZOOLOGY                                    | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5517              | MICROSCOPIC IMAGING AND PROCESSING TECHNIQUES    | E | 2 | 0 | 2 | 3 | 6         | BIO5504   | TECHNIQUES IN EXPERIMENTAL PARASITOLOGY                     | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5519              | BASIC HISTOLOGICAL TECHNIQUES                    | E | 3 | 0 | 0 | 3 | 6         | BIO5506   | ANIMAL BEHAVIOR   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5521              | BIOLOGY OF SPIDERS                               | E | 3 | 0 | 0 | 3 | 6         | BIO5508   | HELMINTHOLOGY   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5523              | HEMODYNAMIC CIRCULATION AND CARDIOVASCULAR       | E | 3 | 0 | 0 | 3 | 6         | BIO5510   | POISONOUS ANIMALS AND ANIMAL TOXINS                         | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5603              | PHYTOREMEDIATION                                 | E | 3 | 0 | 0 | 3 | 6         | BIO5512   | HISTOLOGY OF THE SYSTEMS                                    | E | 3 | 0 | 0 | 3 | 6 |           |           |
| BIO5605              | PRODUCTIVITY IN ECOSYSTEMS AND ASSESMENT METHODS | E | 3 | 0 | 0 | 3 | 6         | BIO5514   | THE EXCRETORY MECHANISMS IN MAMMALS – WATER AND ION BALANCE | E | 3 | 0 | 0 | 3 | 6 |           |           |
|                      |  |   |   |   |   |   |           | BIO5604   | PLANT ECOPHYSIOLOGY   | E | 3 | 0 | 0 | 3 | 6 |           |           |
| <b>Total Credits</b> |  |   |   |   |   |   | <b>12</b> | <b>30</b> | <b>Total Credits</b>  |   |   |   |   |   |   | <b>11</b> | <b>30</b> |

E  
TH

III. TERM / FALL

IV. TERM / SPRING

|  |                                  |   |   |   |   |   |                      |          |                                 |   |   |   |   |   |    |  |
|--|----------------------------------|---|---|---|---|---|----------------------|----------|---------------------------------|---|---|---|---|---|----|--|
|  |                                  |   |   |   |   |   |                      | BIO5184  | ADVANCED TOPICS IN MA THESIS IV | C | 4 | 0 | 0 | 0 | 5  |  |
| BIO5183                                    | ADVANCED TOPICS IN MA THESIS III | C | 4 | 0 | 0 | 0 | 5                    | BIO5194  | MA THESIS IV                    | C | 0 | 0 | 0 | 0 | 25 |  |
| BIO5193                                    | MA THESIS III                    | C | 0 | 0 | 0 | 0 | 25                   |          |                                 |   |   |   |   |   |    |  |
|  |                                  |   |   |   |   |   | <b>Total Credits</b> | <b>0</b> | <b>30</b>                       |   |   |   |   |   |    |  |
|  |                                  |   |   |   |   |   | <b>Total Credits</b> | <b>0</b> | <b>30</b>                       |   |   |   |   |   |    |  |
| <b>TOTAL CREDITS: 23 - TOTAL ECTS: 120</b> |                                  |   |   |   |   |   |                      |          |                                 |   |   |   |   |   |    |  |

**Not:** The student is expected to take a total of **9** credited **3** elective courses (E) 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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**INSTITUTE OF NATURAL SCIENCES**  
**2017-2018 ACADEMIC YEAR COURSE PLAN**

**DEPARTMENT OF** **Biyoloji**  
**DEPARTMENT / PROGRAM** **Biyoloji / 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 |
|                                     | <b>COMPULSORY COURSES IN SECTIONS</b> |   |      |   |   |   |        |                                     | <b>COMPULSORY COURSES IN SECTIONS</b> |  |      |   |   |   |        |      |
|                                     | BIO6181                               | ADVANCED TOPICS IN PHD THESIS I                           | C    | 4 | 0 | 0 | 0      | 5                                   | BIO6172                               | SEMINAR  | C    | 0 | 2 | 0 | 0      | 4    |
|                                     | BIO6191                               | PHD THESIS I  | C    | 0 | 1 | 0 | 0      | 1                                   | BIO6182                               | ADVANCED TOPICS IN PHD THESIS II                                   | C    | 4 | 0 | 0 | 0      | 5    |
|                                     | BIO6101                               | PHYLOGENY OF PLANTS ( <b>BOTANY SECTION</b> )             | C    | 3 | 0 | 0 | 3      | 6                                   | BIO6192                               | PHD THESIS II  | C    | 0 | 1 | 0 | 0      | 1    |
|                                     | BIO6101                               | MOLECULAR EVOLUTION ( <b>GENERAL BIOLOGY SECTION</b> )    | C    | 3 | 0 | 0 | 3      | 6                                   | BIO6406                               | REGULATION OF GENE EXPRESSION ( <b>MOLECULAR BIOLOGY SECTION</b> ) | C    | 3 | 0 | 0 | 3      | 6    |
|                                     | BIO6307                               | AQUATIC PLANTS ( <b>HYDROBIOLOGY SECTION</b> )            | C    | 3 | 0 | 0 | 3      | 6                                   | FEN6000                               | RESEARCH TECHNIQUES and PUBLICATION ETHICS                         | C    | 2 | 0 | 0 | 2      | 2    |
|                                     | BIO6515                               | HORMONAL MECHANISMS IN ANIMALS ( <b>ZOOLOGY SECTION</b> ) | C    | 3 | 0 | 0 | 3      | 6                                   |                                       |  |      |   |   |   |        |      |
|                                     | BIO6601                               | ECOLOGY OF DISTURBED LANDS ( <b>ECOLOGY SECTION</b> )     | C    | 3 | 0 | 0 | 3      | 6                                   |                                       |  |      |   |   |   |        |      |
| <b>ELECTIVE COURSES IN SECTIONS</b> |                                       |   |      |   |   |   |        | <b>ELECTIVE COURSES IN SECTIONS</b> |                                       |  |      |   |   |   |        |      |
|                                     | BIO6107                               | GENETIC DIVERSITY OF PLANTS OF TURKEY                     | E    | 3 | 0 | 0 | 3      | 6                                   | BIO6104                               | FLORA OF TURKEY  | E    | 3 | 0 | 0 | 3      | 6    |
|                                     | BIO6109                               | LICHENS AS BIOINDICATORS                                  | E    | 3 | 0 | 0 | 3      | 6                                   | BIO6106                               | LICHEN ECOLOGY   | E    | 3 | 0 | 0 | 3      | 6    |
|                                     | BIO6203                               | CELL CYCLE AND ITS REGULATION                             | E    | 3 | 0 | 0 | 3      | 6                                   | BIO6108                               | LICHEN PHYSIOLOGY  | E    | 3 | 0 | 0 | 3      | 6    |

|         |  |   |   |   |   |   |   |         |  |   |   |   |   |   |   |
|---------|--|---|---|---|---|---|---|---------|--|---|---|---|---|---|---|
| BIO6205 | MUTAGENESIS  | E | 3 | 0 | 0 | 3 | 6 | BIO6110 | CHEMISTRY OF SECONDARY METABOLITES IN LICHENS          | E | 3 | 0 | 0 | 3 | 6 |
| BIO6207 | FUNGAL ECOLOGY   | E | 3 | 0 | 0 | 3 | 6 | BIO6118 | PALEOPALYNOGY  | E | 2 | 0 | 2 | 3 | 6 |
| BIO6209 | MOLECULAR ECOLOGY                                      | E | 3 | 0 | 0 | 3 | 6 | BIO6120 | COMPARATIVE PLANT ANATOMY                              | E | 3 | 0 | 0 | 3 | 6 |
| BIO6211 | COMTEMPORARY TOPICS AND METHODS IN TOXICOL             | E | 3 | 0 | 0 | 3 | 6 | BIO6200 | GENETIC TOXICOLOGY                                     | E | 3 | 0 | 0 | 3 | 6 |
| BIO6213 | ENVIRONMENTAL AND OCCUPATIONAL TOXICOLOGY              | E | 3 | 0 | 0 | 3 | 6 | BIO6202 | DEVELOPMENTAL GENETICS                                 | E | 3 | 0 | 0 | 3 | 6 |
| BIO6215 | NANOTOXICOLOGY   | E | 3 | 0 | 0 | 3 | 6 | BIO6204 | POPULATION GENETICS                                    | E | 3 | 0 | 0 | 3 | 6 |
| BIO6301 | THE STRUCTURE AND REPRODUCTION OF ALGAE                | E | 3 | 0 | 0 | 3 | 6 | BIO6206 | AQUATIC MICROBIOLOGY                                   | E | 3 | 0 | 0 | 3 | 6 |
| BIO6305 | MULTIVARIATE DATA ANALYSES IN ECOLOGY                  | E | 3 | 0 | 0 | 3 | 6 | BIO6208 | CONSERVATION GENETICS                                  | E | 3 | 0 | 0 | 3 | 6 |
| BIO6401 | HORMONE BIOCHEMISTRY                                   | E | 3 | 0 | 0 | 3 | 6 | BIO6300 | THE STRUCTURE AND REPRODUCTION OF ALGAE                | E | 3 | 0 | 0 | 3 | 6 |
| BIO6405 | EUKARYOTIC MOLECULAR GENETICS                          | E | 3 | 0 | 0 | 3 | 6 | BIO6304 | WETLAND ECOLOGY  | E | 3 | 0 | 0 | 3 | 6 |
| BIO6407 | BIOLOGICAL MACROMOLECULES                              | E | 3 | 0 | 0 | 3 | 6 | BIO6306 | ALGAL PHYSIOLOGY                                       | E | 3 | 0 | 0 | 3 | 6 |
| BIO6411 | CELLULAR BIOCHHEMISTRY                                 | E | 3 | 0 | 0 | 3 | 6 | BIO6400 | LIPID BIOCHEMISTRY AND MEMMBRANES                      | E | 3 | 0 | 0 | 3 | 6 |
| BIO6413 | CANCER BIOLOGY   | E | 3 | 0 | 0 | 3 | 6 | BIO6402 | SIGNAL TRANSDUCTION                                    | E | 3 | 0 | 0 | 3 | 6 |
| BIO6415 | PLANT GENETIC ENGINEERING                              | E | 3 | 0 | 0 | 3 | 6 | BIO6404 | REGULATION BY ENZYMES                                  | E | 3 | 0 | 0 | 3 | 6 |
| BIO6417 | VITAMIN BIOCHEMISTRY AND COENZYMES                     | E | 3 | 0 | 0 | 3 | 6 | BIO6408 | MOLECULAR MICROBIOLOGY                                 | E | 3 | 0 | 0 | 3 | 6 |
| BIO6419 | MOLECULER BIOLOGY OF BIOTIC STRESS TOLERANCE IN PLANTS | E | 3 | 0 | 0 | 3 | 6 | BIO6410 | EPIGENETIC   | E | 3 | 0 | 0 | 3 | 6 |
| BIO6501 | HOST-PARASITE INTERECTIONS                             | E | 3 | 0 | 0 | 3 | 6 | BIO6412 | MOLECULER BIOLOGY OF BIOTIC STRESS TOLERANCE IN PLANTS | E | 3 | 0 | 0 | 3 | 6 |
| BIO6503 | NEMATOLOGY   | E | 3 | 0 | 0 | 3 | 6 | BIO6414 | GENOME ANALYSIS IN PLANTS                              | E | 3 | 0 | 0 | 3 | 6 |
| BIO6505 | RESPIRATION PHYSIOLOGY                                 | E | 3 | 0 | 0 | 3 | 6 | BIO6416 | FUNDAMENTALS OF ENZYMOLOGY AND INDUSTRIAL ENZYMES      | E | 3 | 0 | 0 | 3 | 6 |
| BIO6507 | BIOLOGY OF AMPHIBIANS                                  | E | 3 | 0 | 0 | 3 | 6 | BIO6500 | ZOOGEOGRAPHY OF TURKEY                                 | E | 3 | 0 | 0 | 3 | 6 |

|                         |                                     |   |   |   |   |   |           |                            |  |   |   |   |   |   |    |           |           |
|-------------------------|-------------------------------------|---|---|---|---|---|-----------|----------------------------|--|---|---|---|---|---|----|-----------|-----------|
| BIO6509                 | FISH PHYSIOLOGY                     | E | 3 | 0 | 0 | 3 | 6         | BIO6502                    | AQUATIC ANIMALS  | E | 3 | 0 | 0 | 3 | 6  |           |           |
| BIO6513                 | BIOLOGY AND ECOLOGY OF MAMMALS      | E | 3 | 0 | 0 | 3 | 6         | BIO6504                    | ECOLOGY OF PARASITISM  | E | 3 | 0 | 0 | 3 | 6  |           |           |
| BIO6603                 | MINERAL METABOLISM OF HIGHER PLANTS | E | 3 | 0 | 0 | 3 | 6         | BIO6506                    | NON PARASITIC FISH DISEASES                                  | E | 3 | 0 | 0 | 3 | 6  |           |           |
| BIO6605                 | ECOSYSTEM ECOLOGY                   | E | 3 | 0 | 0 | 3 | 6         | BIO6510                    | PARASITIES OF MARINE ANIMALS                                 | E | 3 | 0 | 0 | 3 | 6  |           |           |
|                         |                                     |   |   |   |   |   |           | BIO6512                    | KIDNEYS AND BODY LIQUIDS                                     | E | 3 | 0 | 0 | 3 | 6  |           |           |
|                         |                                     |   |   |   |   |   |           | BIO6514                    | ANIMAL CONSERVATION BIOLOGY                                  | E | 3 | 0 | 0 | 3 | 6  |           |           |
|                         |                                     |   |   |   |   |   |           | BIO6516                    | ORGANIZATION OF THE NERVOUS SYSTEM AND EVOLUTION             | E | 3 | 0 | 0 | 3 | 6  |           |           |
|                         |                                     |   |   |   |   |   |           | BIO6604                    | ALPINE VEGETATION  | E | 3 | 0 | 0 | 3 | 6  |           |           |
|                         |                                     |   |   |   |   |   |           | BIO6606                    | ECOLOGICAL PLANNING AND THE GEOGRAPHICAL INFORMATION SYSTEMS | E | 3 | 0 | 0 | 3 | 6  |           |           |
|                         |                                     |   |   |   |   |   |           | BIO6608                    | GLOBAL CLIMATE CHANGE AND ECOLOGICAL RESULTS                 | E | 3 | 0 | 0 | 3 | 6  |           |           |
| <b>Total Credits</b>    |                                     |   |   |   |   |   | <b>12</b> | <b>30</b>                  | <b>Total Credits</b>   |   |   |   |   |   |    | <b>11</b> | <b>30</b> |
| <b>III. TERM / FALL</b> |                                     |   |   |   |   |   |           | <b>IV. TERM / SPRING</b>   |  |   |   |   |   |   |    |           |           |
| BIO6183                 | ADVANCED TOPICS IN PHD THESIS III   | C | 4 | 0 | 0 | 0 | 5         | BIO6174                    | SEMINAR(THESIS)  | C | 0 | 2 | 0 | 0 | 5  |           |           |
| BIO6193                 | PHD THESIS III                      | C | 0 | 1 | 0 | 0 | 15        | BIO6184                    | ADVANCED TOPICS IN PHD THESIS IV                             | C | 4 | 0 | 0 | 0 | 5  |           |           |
| YET6177                 | PHD PROFICIENCY EXAMINATION         | C | 0 | 0 | 0 | 0 | 10        | BIO6194                    | PHD THESIS IV  | C | 0 | 1 | 0 | 0 | 25 |           |           |
| <b>Total Credits</b>    |                                     |   |   |   |   |   | <b>0</b>  | <b>30</b>                  | <b>Total Credits</b>   |   |   |   |   |   |    | <b>0</b>  | <b>30</b> |
| <b>V. TERM / FALL</b>   |                                     |   |   |   |   |   |           | <b>VI. TERM / SPRING</b>   |  |   |   |   |   |   |    |           |           |
| BIO6185                 | ADVANCED TOPICS IN PHD THESIS V     | C | 4 | 0 | 0 | 0 | 5         | BIO6186                    | ADVANCED TOPICS IN PHD THESIS VI                             | C | 4 | 0 | 0 | 0 | 5  |           |           |
| BIO6195                 | PHD THESIS V                        | C | 0 | 1 | 0 | 0 | 25        | BIO6196                    | PHD THESIS VI  | C | 0 | 1 | 0 | 0 | 25 |           |           |
| <b>Total Credits</b>    |                                     |   |   |   |   |   | <b>0</b>  | <b>30</b>                  | <b>Total Credits</b>   |   |   |   |   |   |    | <b>0</b>  | <b>30</b> |
| <b>VII. TERM / FALL</b> |                                     |   |   |   |   |   |           | <b>VIII. TERM / SPRING</b> |  |   |   |   |   |   |    |           |           |
| BIO6187                 | ADVANCED TOPICS IN PHD THESIS VII   | C | 4 | 0 | 0 | 0 | 5         | BIO6188                    | ADVANCED TOPICS IN PHD THESIS VIII                           | C | 4 | 0 | 0 | 0 | 5  |           |           |
| BIO6197                 | PHD THESIS VII                      | C | 0 | 0 | 0 | 0 | 25        | BIO6198                    | PHD THESIS VIII  | C | 0 | 0 | 0 | 0 | 25 |           |           |
| <b>Total Credits</b>    |                                     |   |   |   |   |   | <b>0</b>  | <b>30</b>                  | <b>Total Credits</b>   |   |   |   |   |   |    | <b>0</b>  | <b>30</b> |

STAGE THESIS

**TOTAL CREDITS: 23 - TOTAL ECTS: 240**

**Not:** The student is expected to take a total of 9 credited 3 elective courses in Fall academic term and a total of 12 credited 4 elective courses in Spring academic term  
The student have the option of choosing one selective course from another department with the endorsement of the supervisor. \*Success in Ph.D. qualifying exam is a prerequisite.

EK: 5/7

|  <b>ULUDAĞ ÜNİVERSİTESİ</b><br><b>FEN BİLİMLERİ ENSTİTÜSÜ</b><br><b>2017-2018 EĞİTİM ÖĞRETİM YILINDA EKLENEN DERSLER</b> |  |                         |             |          |          |          |              |             |  |   |
|--|--|-------------------------|-------------|----------|----------|----------|--------------|-------------|--|---|
| <b>ANABİLİM DALI</b>   |  | Biyoloji                |             |          |          |          |              |             |  |   |
| <b>BİLİM DALI / PROGRAMI</b>   |  | Zooloji / Yüksek Lisans |             |          |          |          |              |             |  |   |
| <b>Kodu</b>  | <b>Dersin Adı</b>                      | <b>Yarıyıl</b>          | <b>Türü</b> | <b>T</b> | <b>U</b> | <b>L</b> | <b>Kredi</b> | <b>AKTS</b> | <b>Uygulama Esasları*</b>                            | <b>Gerekeçe</b>   |
| BIO5120  | YAPRAK DÖKEN AĞAÇLARIN KİŞİN TANINMASI | II                      | S           | 2        | 2        | 0        | 3            | 6           | 2017-2018 Akademik yılından itibaren uygulanacaktır. | Yaprak döken bazı ağaçların kış döneminde habitus, kabuk, sürgün, tomurcuk özellikleri ve tanı anahtarları kullanılarak kış durumuna göre teşhisleri amaçlanmıştır. |
|  |  |                         |             |          |          |          |              |             |  |   |
|  |  |                         |             |          |          |          |              |             |  |   |
|  |  |                         |             |          |          |          |              |             |  |   |