# AYDIN ADNAN MENDERES UNIVERSITY
# GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
# MATHEMATICS AND SCIENCE EDUCATION
# SCIENCE EDUCATION
# SCIENCE EDUCATION MASTER
# COURSE INFORMATION FORM

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Course Title | BioDiversity | | | | | | | | |
| Course Code | İFB523 | | Couse Level | Second Cycle (Master's Degree) | | | | | |
| ECTS Credit | 8 | Workload | 199 *(Hours)* | Theory | 3 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | To learn all aspects of the concept of biological diversity<br>To better understand the consequences of biodiversity loss<br>Conservation of biodiversity-related knowledge to work | | | | | | | | |
| Course Content | Today one of the most common points in conservation/sustainability is biological diversity. This term has been included as a target in conservation strategies since the conference in Rio de Janeiro in 1992. Biodiversity is considered to be a great capital asset worldwide with possible and sustainable benefits. The loss of biodiversity is global issue and it's being arranged with international regulations. If the nutrition need for the whole world's population is considered, plant derived genetic resources are really important for food and agriculture. Therefore, understanding these properties and analyzing them with a geographical perspective is the primary objective. | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion, Project Based Study, Individual Study, Problem Solving | | | | | | | | |
| Name of Lecturer(s) | Prof. Hatice ÖZENOĞLU | | | | | | | | |

| Assessment Methods and Criteria | | |
|---|---|---|
| Method | Quantity | Percentage (%) |
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

| Recommended or Required Reading | |
|---|---|
| 1 | Işık, K. 1996. Biyolojik Çeşitlilik ve Orman Gen kaynaklarımız (Biological Diversity and Our Forest Genetic Resources). Orman Bakanlığı Yayını , No. 13, Ankara, 120 pp. |
| 2 | Işık, K. 1997. Biyolojik Çeşitlilik (Biodiversity). Bilim ve Teknik. TÜBİTAK. Ankara, 30 (350): 84-87 |
| 3 | TÇV. 1990. Türkiye'nin Biyolojik Zenginlikleri (Ed.: a.Kence), TCV. Yayını. Ankara, 318 ss. |
| 4 | Çepel, N. 1992. Doğa, Çevre, Ekoloji ve İnsanlığın Ekolojik Sorunları. Altın Kitaplar Yayınevi, İstanbul. |
| 5 | Ekim T, Koyuncu M, Vural M, Duman H, Aytac Z, Adiguzel N, 2000, Türkiye Bitkileri Kırmızı Kitabı. |
| 6 | Seçmen, Ö. (1997) Türkiye Sulak Alan Bitkileri ve Bitki Örtüsü. İzmir: Ege Üniversitesi |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | What is the Biological Diversity? |
| 2 | Theoretical | Economic Value of Biological Diversity |
| 3 | Theoretical | Protection of Basic Principles of Genetic Diversity |
| 4 | Theoretical | Conservation of species and species community |
| 5 | Theoretical | Conservation of Natural Areas |
| 6 | Theoretical | Biological Diversity of Turkey |
| 7 | Theoretical | National Parks |
| 8 | Intermediate Exam | MIDTERM EXAM |
| 9 | Theoretical | Natural Protection Areas |
| 10 | Theoretical | Nature Parks |
| 11 | Theoretical | Animal Genetic Resources |
| 12 | Theoretical | Plant Genetic Resources |
| 13 | Theoretical | Endemic Species Conservation Policy |
| 14 | Theoretical | Threats on the Genetic Diversity |
| 15 | Theoretical | Threats on the Genetic Diversity |
| 16 | Final Exam | TERM |

| Workload Calculation | | | | |
|---|---|---|---|---|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 2 | 3 | 70 |
| Assignment | 1 | 28 | 2 | 30 |
| Reading | 4 | 20 | 0 | 80 |
| Quiz | 1 | 4 | 1 | 5 |
| Midterm Examination | 1 | 5 | 1 | 6 |
| Final Examination | 1 | 6 | 2 | 8 |
| | | | Total Workload (Hours) | 199 |
| | | | [Total Workload (Hours) / 25*] = **ECTS** | 8 |
| *25 hour workload is accepted as 1 ECTS* | | | | |

| Learning Outcomes | |
|---|---|
| 1 | To be able to learn all aspects of the concept of biological diversity |
| 2 | To be able to learn concept of biological diversity elements |
| 3 | To be able to learn impotance of biological diversity |
| 4 | To be able to learn importance of biological diversity a country |
| 5 | To be able to learn importance of biological diversity for the future of human |

| **Programme Outcomes** *(Science Education Master)* | |
|---|---|
| 1 | To be able to have an expert theoretical knowledge within the field of science educatıon. |
| 2 | To be able to transfer expert knowledge gained in science education into various instructional environment. |
| 3 | To be able to integrate science education knowledge with the other disciplines and product functional knowledge |
| 4 | To be able to use information and communication technologies efficiently in conceptual learning |
| 5 | To be able to find scientific solutions to the problems in the field of science education |
| 6 | To be able to evaluate the knowledge critically in the field |
| 7 | To be able to participate in team projects in the science education field |
| 8 | To be able to adopt lifelong learning strategies to his/her studies |
| 9 | To be able to use at least one foreign language efficently in oral and verbal communication |
| 10 | To be able to share national and international data in the field of science education |
| 11 | To be able to comprehend and evaluate science-technology-society and environment interactions |
| 12 | To be able to comprehends science under the ethical values and take account of ethical considerations |
| 13 | To be able to use scientific information in the other domains that is gained in the masters field and have the transfer skills |
| 14 | To be able to follow the current development in the science education field |
| 15 | To be able to develop strategical plans and evaluate them in the context of quality processes |

**Contribution of Learning Outcomes to Programme Outcomes** *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

| | L1 | L2 | L3 | L4 | L5 |
|---|---|---|---|---|---|
| P1 | 5 | 5 | 1 | 1 | 1 |
| P2 | 1 | 1 | 5 | 5 | 5 |
| P3 | 3 | 3 | 3 | 3 | 3 |
| P4 | 4 | 4 | 4 | 4 | 4 |
| P5 | 1 | 1 | 3 | 3 | 3 |
| P6 | 5 | 5 | 5 | 5 | 5 |
| P7 | 2 | 2 | 2 | 2 | 2 |
| P8 | 4 | 4 | 4 | 4 | 4 |
| P9 | 1 | 1 | 1 | 1 | 1 |
| P10 | 4 | 4 | 4 | 4 | 4 |
| P11 | 5 | 5 | 5 | 5 | 5 |
| P12 | 4 | 4 | 4 | 4 | 4 |
| P13 | 3 | 3 | 3 | 3 | 3 |
| P14 | 5 | 5 | 5 | 5 | 5 |
| P15 | 4 | 4 | 4 | 4 | 4 |