



**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	General Biology I								
Course Code	İFB515		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Giving information about classification of the plants and their principles, vegetal organs, nutrition of plants, plant embryology and DNA structure and its function								
Course Content	Meaning, areas, importance, historical development of biology; living and inanimate structures; diversity and classification of living things (prokaryotes, eukaryotes, species concept and taxonomic structures, species concept and taxonomic structure, structure and properties of plants); basic unit of life (cell, cell structure and function, membrane structure and function); cell division (mitosis, meiosis and uncontrolled cell division); tissues (plant tissues, dividing tissue, invariant tissue); plant organs and structures (vegetative organs, generative organs, reproductive, fertilization and development in flowering and flowering plants); an overview of animal diversity (general characteristics of invertebrate animals and chords) and open and closed end experiments on these topics								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Discussion, Individual Study								
Name of Lecturer(s)									

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

#### Recommended or Required Reading

1	Süzen, B. (2003). Biyoloji
2	Güner, H. ve Aysel, V. (1996). Tohumuz Bitkiler Sistematığı I- II
3	Seçmen, Ö. ve ark. (1998). Tohumlu Bitkiler Sistematığı
4	Öztürk, M. ve Seçmen, Ö. (1992). Bitki Ekolojisi

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction of the lesson and introducing the references for the lesson
2	Theoretical	Classification of the plants and their principles
3	Theoretical	Vegetal organs
4	Theoretical	Proliferation in plants
5	Theoretical	Nutrition of plants
6	Theoretical	Plant embryology
7	Theoretical	Differentiation of plants
8	Intermediate Exam	MIDTERM
9	Theoretical	Vegetal hormones
10	Theoretical	Heredity
11	Theoretical	Heredity
12	Theoretical	DNA structure and its function
13	Theoretical	Biotechnological studies and new facilities they present
14	Theoretical	Ecology
16	Final Exam	term

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	5	10	0	50
Reading	5	9	0	45
Midterm Examination	1	10	2	12



Final Examination	1	20	3	23
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	To be able to understand classification of plants and aspects of plants.
2	To be able to understand basic concepts of ecology.
3	Introduce sub-major areas of biology and other related areas
4	To introduce the basic terminology in biology
5	The about the historical development of the science of biology

### Programme Outcomes (Science Education Master)

1	To be able to have an expert theoretical knowledge within the field of science education.
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 efficiently 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	4	4	5	5	5
P3	2	2	5	5	5
P8	3	3	5	5	5
P11		3	5	5	5

