



ADIYAMAN UNIVERSITY
FACULTY OF SCIENCE AND
LITERATURE

DEPARTMENT OF BIOLOGY

INTRODUCTORY BOOKLET

2024-2025

2023-2024

CONTENTS

- About
- Mission and Vision
- Importance of Biology
- Why Biology?
- Career Opportunities in Biology
- Highest and Lowest Placement Scores
- Course Catalogue
- Academic Activities
- Student and Research Laboratories

2006

About

Department of Biology started education at the undergraduate and graduate levels in the 2009-2010 academic year. Our department, which has completed all its infrastructure until 2014, continues its undergraduate, graduate and doctorate education programs successfully. There is a total of seven sub-branches in our department:

- Botany
- Zoology
- General Biology
- Molecular Biology and Genetics
- Hydrobiology
- Ecology and Environmental Biology
- Biotechnology

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Head of Department

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Assistant Chair of the Department

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General Biology

Prof. Dr. Yusuf SEVGİLER

Molecular Biology and Genetics

Prof. Dr. Eyüp RENCÜZOĞULLARI

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Hydrobiology

Assoc. Prof. Dr. Serdar SÖNMEZ (Head of Hydrobiology
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Prof. Dr. Tamer KAYIŞ

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Prof. Dr. Mustafa COŞKUN

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Mission and Vision

Mission

Mission of the Biology department is to educate individuals owning a researcher and entrepreneur spirit in the Botany, Zoology, Hydrobiology, Molecular Biology, Genetics and other sub-branches of biology. Also, to contribute to our students being a questioning, participatory, dynamic individuals who are embracing cultural values, and thinking universally, and serving humanity by improving science and technology; and to raise them as individuals who will contribute to the development of the country and the region with their achievements that they got from our department.

Vision

The vision of our department is to be an entrepreneur which is open to technological innovations, to be a ground-breaking department with

international competitive power, to carry out creative and valuable researches that will mark the history of humanity at the international level in various fields, to educate highly qualified biologists that are using their knowledge in research and education for the benefit of the society under the guidance of our education staff who are equipped with the knowledge, experience and infrastructure required by the 21st century.

To achieve the goals that are mentioned above, the purpose of the academic staff of the department is:

In short term;

- Improvement of the physical facilities like classroom and laboratories
- Preparation of up to date laboratory leaflets in which the students can access basic biology information and to increase the library resources.

- To create instruction manuals for the devices in the laboratories and the list of consumables
- To prepare instructions for informing against dangers that may occur during the use of laboratories (such as fire, approach to chemical substances, etc).
- To take the necessary initiatives for the purchase of equipments and consumables that are found to be lacking in the laboratories.
- Contribution will be made to open master's and doctoral programs within the Institute of Science.

In long term;

- To provide opportunity to use up-to-date material to the students of biology while accessing information.
- To Cooperate with some local and national industrial organizations in order to solve the existing problems of the region (for example, determining and protecting the wetlands of the region, creating a herbarium and zoology museum which will serve for the researchers of the field)

- To establish a central laboratory of advanced research which will meet the needs of local people.
- To contribute to the establishment of our university's research fund.
- To provide laboratory devices in accordance with the projects which will be submitted to organizations like Scientific and Technical Research Council of Turkey (TUBITAK) and State Planning Organization (DPT)

As the Department of Biology, we have achieved most of the above objectives that we promised during the establishment phase and we are working on our long-term goals with our expanding and stronger staff.

The Importance of Biology

The main research area of biology is life and it helps us to understand the structures, environments and relationships of all organisms. Apart from these, it acts as a bridge connecting the fields of science like environmental engineering, food engineering,

medicine, pharmacy etc. by dealing with the diversity of life forms and constitutes the basis of these fields.

Why Biology?

Biology, as mentioned above, has a very comprehensive field of study. When just taxonomy field, which deals with the diversity of living things, taken into account, it is thought that around 38 million living species are still waiting to be discovered. Sub-branches of biology such as Molecular Biology and Biochemistry consistently reveal problems about the structures and functioning of living things with the new methods that are updated day by day. Nowadays, the problems triggered by the increasing industry and correspondingly increasing pollution are globally modeled with sub-research areas of biology such as ecology and solutions are offered. For the very reason, biology graduates can attain career opportunities in public institutions and private companies

and universities that develop projects to solve the above mentioned problems.

Career Opportunities

Those who have completed the Biology program receive the title of "Biologist". Biologists generally examine the structure of living or dead plants, animals and human cells or tissues, and the changes that occur in their structure as a result of various chemical effects.

A few of the career opportunities can be summarized as; in hospitals affiliated with the Ministry of Health and SSI, in the medical faculties of the universities, in the hydrobiology research centers, in the institutions affiliated to the Ministry of Environment and the Ministry of Forestry, Agriculture and Rural Affairs. Our graduates can also work in the private sector such as pharmaceutical and food industry. If

the graduates complete the initial teacher training after graduation, they can work as a biology teacher in secondary schools affiliated to the Ministry of National Education or the private sector.

Likewise, the rapid development and increasing importance of the field of molecular biology and genetics will increase the possibility of the graduates of the department to be employed.

2006

The Highest and The Lowest Placement Scores According to The Student Selection and Placement Centre

Our department, which accepted students with the SAY score type in 2023, has a 100% rate in the first placement and has accepted 26 students which the quota is. For 2023 the lowest score was 264; and the highest score was 335 for the accepted students. The Success Rank of the Last Person Placed with a 0.12 Coefficient was 387. Average OBP of the accepted students was 502,655 and Average Diploma Grade was 77,5.

Course Catalogue

1.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
AİİT 101	ATATURK'S PRINCIPLES AND HISTORY OF REVOLUTION I	2+0+0	Compulsory	2
BİY 101	GENERAL BIOLOGY I	6+0+0	Compulsory	8
BİY 151	GENERAL BIOLOGY I LABORATORY	0+3+0	Compulsory	4
ENF 101	INTRODUCTION TO BASIC KNOWLEDGE TECHNOLOGIES	2+0+0	Compulsory	4
FİZ 101	PHYSICS FOR BIOLOGISTS	2+0+0	Compulsory	2
KİM 101	CHEMISTRY FOR BIOLOGISTS	2+2+0	Compulsory	5
TD 101	TURKISH I	2+0+0	Compulsory	2
YD 101	ENGLISH I	2+0+0	Compulsory	3
Total ECTS	30			
2.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
AİİT 102	ATATURK'S PRINCIPLES AND HISTORY OF REVOLUTION II	2+0+0	Compulsory	2
BİY 102	GENERAL BIOLOGY II	6+0+0	Compulsory	8
BİY 104	ENVIRONMENTAL BIOLOGY	2+0+0	Compulsory	4
BİY 106	BIOETHICS	2+0+0	Compulsory	3
BİY 108	BIOISTATISTIC	2+0+0	Compulsory	4
BİY 152	GENERAL BIOLOGY II LABORATORY	0+3+0	Compulsory	4
TD 102	TURKISH II	2+0+0	Compulsory	2
YD 102	ENGLISH II	2+0+0	Compulsory	3
Total ECTS	30			
3.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
BİY 201	CYTOLOGY	2+0+0	Compulsory	3
BİY 203	SYSTEMATICS OF INVERTEBRATES	3+0+0	Compulsory	4
BİY 205	HYDROBIOLOGY	2+0+0	Compulsory	3
BİY 207	SYSTEMATICS OF PHANEROGAMAE	3+0+0	Compulsory	4
BİY 209	PLANT ANATOMY AND MORPHOLOGY	3+0+0	Compulsory	3
BİY 211	MICROTECHNIQUES	1+0+2	Compulsory	3
BİY 251	CYTOLOGY LABORATORY	0+2+0	Compulsory	2
BİY 253	INVERTEBRATE ANIMAL SYSTEMATICS LABORATORY	0+2+0	Compulsory	2
BİY 255	HYDROBIOLOGY LABORATORY	0+2+0	Compulsory	2
BİY 257	SYSTEMATICS OF CRYPTOGAMES LABORATORY	0+2+0	Compulsory	2
BİY 259	PLANT ANATOMY AND MORPHOLOGY LABORATORY	0+0+2	Compulsory	2
BİY.209	PLANT ANATOMY AND MORPHOLOGY	3+0+0	Compulsory	0
Total ECTS	30			
4.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
BİY 200	SYSTEMATICS OF VERTEBRATES	3+0+0	Compulsory	4

BİY 204	ECOLOGY	2+0+0	Compulsory	3
BİY 206	HISTOLOGY	2+2+0	Compulsory	4
BİY 212	EMBRYOLOGY	2+0+0	Compulsory	3
BİY 250	VERTEBRATES SYSTEMATICS LABORATORY	0+2+0	Compulsory	3
BİY 252	SYSTEMATICS OF PHANEROGAMIC PLANTS LABORATORY	0+2+0	Compulsory	3
BİY 256	HISTOLOGY LABORATORY	0+2+0	Compulsory	3
BİY-202	SYSTEMATICS OF PHANEROGAMIC PLANTS	3+0+0	Compulsory	4
KİM 210	ORGANIC CHEMISTRY	2+0+0	Compulsory	3
Total ECTS	30			

PEDAGOGICAL FORMATION COURSES PLAN

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
PFE 001	INTRODUCTION TO EDUCATION	3+0+0	Elective	4

5.Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
BİY 301	GENETICS I	2+2+0	Compulsory	3
BİY 303	ANIMAL PHYSIOLOGY I	2+0+0	Compulsory	3
BİY 305	PLANT PHYSIOLOGY I	2+0+0	Compulsory	3
BİY 307	MOLECULAR BIOLOGY I	2+0+0	Compulsory	3
BİY 309	BIOCHEMISTRY I	2+0+0	Compulsory	3
BİY 311	MICROBIOLOGY I	2+0+0	Compulsory	3
BİY 313	Biogeography	2+0+0	Compulsory	2
BİY 351	MICROBIOLOGY I LABORATORY	0+2+0	Compulsory	2
BİY 353	ANIMAL PHYSIOLOGY I LABORATORY	0+2+0	Compulsory	2
BİY 355	PLANT PHYSIOLOGY II LABORATORY	0+2+0	Compulsory	2
BİY 357	MOLECULAR BIOLOGY I LABORATORY	0+2+0	Compulsory	2
BİY 359	BIOCHEMISTRY I LABORATORY	0+2+0	Compulsory	2
			Total ECTS	30

PEDAGOGICAL FORMATION COURSES PLAN

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
PFE 002	PRINCIPLES AND METHODS OF TEACHING	3+0+0	Elective	4
PFE 003	CLASSROOM MANAGEMENT	2+0+0	Elective	3

6.Semester Course Plan

Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
BİY 300	GENETICS II	2+2+0	Compulsory	3
BİY 302	ANIMAL PHYSIOLOGY II	2+0+0	Compulsory	3
BİY 304	PLANT PHYSIOLOGY II	2+0+0	Compulsory	3
BİY 306	MOLECULAR BIOLOGY II	2+0+0	Compulsory	3
BİY 308	MICROBIOLOGY II	2+0+0	Compulsory	3
BİY 312	BIOCHEMISTRY II	2+0+0	Compulsory	3
BİY 350	BIOCHEMISTRY II LABORATORY	0+0+2	Compulsory	2
BİY 352	ANIMAL PHYSIOLOGY II LABORATORY	0+2+0	Compulsory	2

BİY 354	PLANT PHYSIOLOGY I LABORATORY	0+2+0	Compulsory	2
BİY 356	MOLECULAR BIOLOGY II LABORATORY	0+2+0	Compulsory	2
BİY 358	MICROBIOLOGY II LABORATORY	0+2+0	Compulsory	2
BİY.310	INTRODUCTION TO BIOTECHNOLOGY	2+0+0	Compulsory	2
			Total ECTS	30
PEDAGOGICAL FORMATION COURSES PLAN				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
PFE 004	SPECIAL TEACHING METHODS	3+0+0	Elective	4
PFE 005	School Counseling and Special Education	3+0+0	Elective	4
7.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
BİY 403	EVOLUTION	3+0+0	Compulsory	6
SEÇ 1	ELECTIVE	2+0+0	Elective	24
			Total ECTS	30
PEDAGOGICAL FORMATION COURSES PLAN				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
PFE 006	MEASUREMENT AND EVALUATION IN EDUCATION	3+0+0	Elective	4
PFE 007	PSYCHOLOGY OF EDUCATION	3+0+0	Elective	4
8.Semester Course Plan				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
BİY 402	VEGETATION SCIENCE AND APPLICATION	2+2+0	Compulsory	6
SEÇ 2	ELECTIVE	0+0+0	Elective	24
			Total ECTS	30
PEDAGOGICAL FORMATION COURSES PLAN				
Course Code	Course Name	T+A+L	Compulsory/Elective	ECTS
PFE 008	INSTRUCTIONAL TECHNOLOGIES	2+0+0	Elective	3
PFE 009	TEACHING PRACTICE	1+8+0	Elective	10

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Academic Activities

Members of the Biology Department carry out research and development projects in addition to undergraduate and graduate education activities, and additionally serve as consultants to the Ministry of Forestry and Water Affairs and the Ministry of Environment and Urbanization.

Student and Research Laboratories

In our department, there is a zoology laboratory with a wide collection of amphibians, reptiles and aquatic invertebrates, a herbarium where plant samples, which were collected from Adiyaman province and its surroundings, are stored. Our department also has molecular biology and genetics, biochemistry and animal physiology laboratories that are equipped with up-to-date laboratory devices, and an aquatic toxicology laboratory where the effects of environmental pollutants

on aquatic invertebrates are studied. And finally, a student laboratory where you, our students, learn by using up-to-date methods and learn by experimenting. For detailed information and photos, please visit <http://biyoloji.adiyaman.edu.tr/Laboratuvarlarimiz/>.



FACULTY OF SCIENCE AND LITARATURE

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