



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biotechnology in Fisheries and Aquaculture							
Course Code		SUM398		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	74 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To identify biotechnological developments in aquaculture							
Course Content		In this lecture, the definition of biotechnology, explaining the importance of the main application areas. Differences in traditional and modern biotechnology are thought. Explaining the developments in the field of aquaculture biotechnology.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Akvaryum, Atilla Albaz, E.Ü.Su Ürünleri Fakültesi Yayını, İzmir, 2000.
2	Su Ürünleri Yetiştiriciliği, Atilla Albaz, Alp Yayınları, İzmir, 2005.
3	Balık Biyolojisi Araştırma Yöntemleri, Mehmet Karataş, Ankara, 2005.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction, the importance of aquaculture
	Preparation Work	Textbook
2	Theoretical	Fish biology, anatomy and systematics
	Preparation Work	Textbook
3	Theoretical	Fish biology, anatomy and systematics
	Preparation Work	Textbook
4	Theoretical	Fish biology, anatomy and systematics
	Preparation Work	Textbook
5	Theoretical	Marine fish aquaculture
	Preparation Work	Textbook
6	Theoretical	Marine fish aquaculture
	Preparation Work	Textbook
7	Theoretical	Inland water fish aquaculture
	Preparation Work	Textbook
8	Intermediate Exam	Midterm exam
9	Theoretical	Inland water fish aquaculture
	Preparation Work	Textbook
10	Theoretical	Shellfish and crustacean aquaculture
	Preparation Work	Textbook
11	Theoretical	Shellfish and crustacean aquaculture
	Preparation Work	Textbook
12	Theoretical	transgenic studies on fish
	Preparation Work	Textbook
13	Theoretical	The use of molecular markers and systematic
	Preparation Work	Textbook
14	Theoretical	Biotechnology applications in aquaculture
	Preparation Work	Textbook
15	Theoretical	Biotechnology applications in aquaculture



15	Preparation Work	Textbook
16	Final Exam	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Midterm Examination	1	1	1	2
Final Examination	1	1	1	2
Total Workload (Hours)				74
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Describe the biotechnological methods in the field of aquaculture
2	Explain the advantages and disadvantages for the fisheries sector in biotechnology applications
3	Describe the use of enzymes as processing aids aquaculture industry
4	To know current biotechnological developments
5	Know basic biotechnological methods used in aquaculture

Programme Outcomes (Agricultural Biotechnology)

1	To be able to develop skills in identifying, modeling and solving problems in agricultural biotechnology
2	To be able to synthesize life and engineering sciences for the effective resource planning of agricultural biotechnology applications
3	To be able to interpret about living organisms structure, metabolic and physiological processes in order to propose biotechnological solutions to the agricultural problems
4	To be able to analyze genomic, metabolomic and proteomic information via bioinformatic tools.
5	To have the ability to analyze collected data and interpret the results.
6	To have the ability of individual working ability and to make independent decisions, to work in inter-disciplinary and interdisciplinary teamwork, to communicate by expressing their ideas orally and in writing, clearly and concisely
7	To have the awareness of professional liabilities and ethics
8	To be able to follow current national and international problems

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	4	4	4
P2	5	4	5	4	3
P3	4	4	4	4	3
P4	3	3	4	4	3
P5	3	3	3	3	3
P6	3	3	2	4	3
P7	4	4	2	3	3
P8	4	3	2	3	3

