AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Reproduction and Artificial Insemination in Fish						
Course Code	VST545		Couse Level	Second Cycle (Master's Degree)			
ECTS Credit	3	Workload	75 *(Hours)*	Theory	1	Practice	2	Laboratory	0
Objectives of the Course	To give information about fish reproduction and artificial insemination						
Course Content	Reproduction and artificial insemination in fish						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion						
Name of Lecturer(s)							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Bearden H.J., Fuquay J.W., Willard S.T. (2004) Applied Animal Reproduction. Pearson Prentice Hall, New Jersey
2	Hafez E.S E., Hafez B. (2000) Reproduction in Farm Animals. Lippincott Williams & Wilkins, Philadelphia
3	Pineda M. H., Dooley M. P. (2003) McDonald's Veterinary Endocrinology and Reproduction, Iowa State Press, New York

Week	Weekly Detailed Course Contents	
1	Theoretical	Reproduction in fish
	Practice	Practise in fish farm
2	Theoretical	Reproduction in fresh water fish
	Practice	Practise in fish farm
3	Theoretical	Reproduction in seawater fish
	Practice	Practise in fish farm
4	Theoretical	Producing of fish egg
	Practice	Practise in fish farm
5	Theoretical	Optimum conditions for fertilization
	Practice	Practise in fish farm
6	Theoretical	Feeding of fish in reproductive term
	Practice	Practise in fish farm
7	Theoretical	Diseases effecting reproduction in fish
	Practice	Practise in fish farm
8	Practice	Practise in fish farm
	Intermediate Exam	Midterm exam
9	Theoretical	Collection of sperm in fish
	Practice	Practise in fish farm
10	Theoretical	Sperm parameters in fish
	Practice	Practise in fish farm
11	Theoretical	Short term storage of fish sperm
	Practice	Practise in lab
12	Theoretical	Freezing of fish sperm
	Practice	Practise in lab
13	Theoretical	Insemination with chilled sperm
	Practice	Practise in fish farm
14	Theoretical	Insemination with frozen thawed sperm
	Practice	Practise in fish farm
15	Theoretical	Discussion

16	Final Exam	Final term exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	1	14
Lecture - Practice	14	0	2	28
Midterm Examination	1	11	1	12
Final Examination	1	20	1	21
			Total Workload (Hours)	75
		[Total Workload (Hours) / 25*] = **ECTS**		3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	to be able to analyse reproduction in fish
2	to be able to formulate artificial insemination in fish
3	to be able to comprehend collection of sperm in fish
4	to be able to record preservation of fish sperm
5	Factors affecting reproduction in fish

Programme Outcomes *(Reproduction and Artificial Insemination (Veterinary Medicine) Master)*

1	To get knowledge about Reproduction and Artificial Insemination with theoretical lessons and practise
2	To get knowledge about reproductive systems of animals, reproductive organs and functions of these organs
3	To get knowledge about reproductive physiology of male and female animals, reproductive endocrinology, synchronisations and reproductive health
4	To get experience about diagnosis of oestrus, proper insemination time and method
5	To get experience to join reproductive scientific research, to follow scientific advances own field. To transfer all these experiences and knowledge to students and society
6	To gain ability to reach scientific references, to plan an experiment, study this experiment, evaluation of experimental results and compare this result similar experimental result
7	To get experience about cryopreservation and short term storage of sperm, examination of sperm
8	To get knowledge about reproductive biotechnology (artificial insemination, in-vitro fertilisation, freezing of sperm and embryo, embryo transfer, laparoscopic insemination). To Contribute and advance to science
9	To get knowledge about infertility, diagnosis of infertility, treatment of infertility in domestic animals especially commercial farms

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

	L1	L2	L3	L4
P1	5	5	5	5
P2	5	5	5	3
P3	4	4	3	
P4	4		2	
P5	5	3	3	
P6	3	3	3	
P7	2	4	4	5
P8		3		
P9	4	4	2	