



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Development of Birds and Mammals After Zygote Formation and Implantation							
Course Code		VHE527		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To teach oocyte types and cleavage patterns To teach the development of avian and mammalian embryos following the fertilization							
Course Content		Type of oocytes, the development of embryos following the fertilization, differences between avian and mammalian embryos, extraembryonic sacs in avians, development of extraembryonic sacs in mammals, implantation in mammals.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, 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	Brookes M, Zietman A (1998) Clinical Embryology: a color atlas and text. Boca Raton CRC Pres.
2	Gilbert SF (2000) Developmental Biology. Sunderland Mass, Sinauer Associates.
3	Hassa O., Aştı R.N. (1997) Embriyoloji. Yorum Basın Yayın San. Ltd. Şti. Ankara.
4	Latshaw W (1987) Veterinary Developmental Anatomy. A clinically ariedented approach. B.C. Decker Inc. Toronto
5	McDady TA (2006) Veterinary Embryology. Oxford, Ames, Iowa: Blackwell Pub.
6	Özer A., Yakışık M., Özfiliz N., Erdost H., Zık B. (2005) Veteriner Embriyoloji Uludağ Üniversitesi. Veteriner Fakültesi Yayınları. Bursa.

Week	Weekly Detailed Course Contents	
1	Theoretical	Eggs and division types
2	Theoretical	Eggs and divison types
3	Theoretical	Avian developmental stages after the zygote become.
4	Theoretical	Avian developmental stages after the zygote become.
5	Theoretical	Mammalian developmental stages after the zygote become.
6	Theoretical	Mammalian developmental stages after the zygote become.
7	Theoretical	Avian extra embryonal sacs
8	Intermediate Exam	Midterm exam
9	Theoretical	Avian extra embryonal sacs
10	Theoretical	Mammalian extra embryonal sacs
11	Theoretical	Mammalian extra embryonal sacs
12	Theoretical	Differences in extraembryonal sacs location
13	Theoretical	Umbilical cord
14	Theoretical	Implantation types in mammalian uterus
15	Theoretical	Implantation types in mammalian uterus
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	1	6	0	6
Reading	10	0	2	20
Midterm Examination	1	15	1	16



Final Examination	1	29	1	30
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Knows the types of egg.
2	Knows the shapes of egg division.
3	Understands embryonal development after zygote formation in birds and mammals.
4	Knows extra embryonal sacs in birds and mammals
5	Knows the types of implantation in mammals.

Programme Outcomes (Histology and Embryology (Veterinary Medicine) Master's Without Thesis)

1	Gains expert knowledge on the function and basic histological features of cells, tissues and systems in animals
2	Gains expert knowledge on the stages of embryonal and fetal development in both mammals and birds
3	Comprehends and defines interactions among disciplines related to histology-embryology.
4	Knows national and international laws and regulations concerning histology and embryology.
5	Determines and uses laboratory equipment and consumables in a histology laboratory.
6	Forms ideas to solve complex problems using theoretical and practical information gained throughout the histology/embryology education.
7	Integrates and interprets information in the area of histology/embryology with information in different fields and, if the need arises, provides scientific information and solutions to solve problems.
8	Performs his/her expertise with the recognition of the rights and responsibilities obtained with the completion of the master of Science in histology/embryology.
9	Develop alternative strategies to solve national and international problems in the field of histology/embryology using expert knowledge and expertise in histology/embryology obtained during his/her training, solves them and evaluates the data . If the need arises, takes a part as a team member to solve problems outside his/her field.
10	Takes responsibility in individual and collective work and completes his/her duties. Takes professional and ethical responsibilities.
11	Comprehends methods associated with attainment and presentation of scientific information.
12	Evaluates his/her expert information gained during the master of Science critically and determines new information and sources of information and attends to activities to complement his/her educational deficiencies
13	For his/her professional development, evaluates and uses any available information and activity in his/her studies.
14	If the need arises, gives information and organizes activities to define a problem in his/her field of expertise.
15	Takes responsibilities in professional organizations and committees related to his/her field of expertise.
16	Relying on his/her professional skills and rights, he/she plans and realizes projects with the conciseness of social responsibility. He/she follows the developments in the world and is sensitive to events.
17	In order to maintain his/her professional development and to have social interactions, he/she uses at least one foreign language.
18	Uses advanced technological means that might be necessary for both professional applications and social interactions.
19	Reviews, evaluates and interprets any data (field observations, available scientific information etc.) towards a specific purpose. Develops and uses strategies in his/her field of expertise.
20	Applies and defines his/her expert knowledge with realizing the needs of the region and the country.

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	5	5	5
P2	2	2	2	2	2
P3	4	4	4	4	4
P5	4	4	4	4	4
P6	3	3	3	3	3
P7	4	4	4	4	4
P8	4	4	4	4	4
P10	4	4	4	4	4
P11	4	4	4	4	4
P12	4	4	4	4	4
P13	4	4	4	4	4



P19	4	4	4	4	4
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