



Jordan University of Science and Technology
Faculty of Agriculture
Animal Production Department

AP423 Reproductive Physiology

First Semester 2022-2023

Course Catalog

3 Credit Hours. The reproductive physiology course is of three credits total (3 weekly mandatory lecture hours) usually given over one term (first semester) a year. Anatomy and physiology of reproductive systems, reproductive hormones, puberty, estrous cycle, gamete production, fertilization, physiology of gestation and parturition, reproductive management and causes of reproductive failure. This course is designed to introduce students with and will discuss the role of hormones in regulating reproduction in domestic species. Students will identify the major hormones involved in reproduction and describe their role in regulating reproduction in males and females.

Text Book

Title	Applied Animal Reproduction
Author(s)	H. Joe Bearden and J. W. Fuquay
Edition	6th Edition
Short Name	Ref1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref2	Pathways to Pregnancy and Parturition	P.L. Senger	3rd Edition	
Ref3	Reproduction in Farm Animals	E. S. E. Hafez, B. Hafez	7th Edition	

Instructor

Name	Prof. Mustafa Beni-Domi
Office Location	M1L3
Office Hours	Sun : 08:30 - 09:30 Mon : 09:30 - 12:00 Tue : 12:30 - 14:00 Thu : 14:30 - 15:30

Email	huseinmq@just.edu.jo
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Class Schedule & Room

Section 1:
 Lecture Time: Sun, Tue, Thu : 11:30 - 12:30
 Room: C5023

Prerequisites

Line Number	Course Name	Prerequisite Type
613212	AP321 Animal Physiology	Prerequisite / Study

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	History and introduction to reproductive physiology	From Ref1
Weeks 1, 2	Anatomy of the female reproductive tract	From Ref1 , From Ref2
Weeks 3, 4	Anatomy of the male reproductive tract	From Ref1 , From Ref2
Week 5	Neuroendocrine Regulators of Reproduction	From Ref1 , From Ref2
Weeks 6, 7	Reproductive Processes; puberty and gametogenesis in the male and female	From Ref1 , From Ref2
Week 8	Ovulation	From Ref1 , From Ref2
Weeks 9, 10	Gestation and sexual differentiation	From Ref1 , From Ref2
Weeks 11, 12	Parturition	From Ref1 , From Ref2
Weeks 13, 14	Reproductive management	From Ref1

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify the parts of the male and female reproductive tracts and explain their main functions	15%	
Explain the basic principles of reproduction and reproductive systems among farm animal species	8%	

Understand neuroendocrine regulation of reproduction and identify the major hormones involved in reproduction and describe their role in regulating reproduction in males and females.	15%	
Describe the role of each male and female reproductive structures and how they relate to gamete production and transport	10%	
Learn and understand physiological processes and mechanisms controlling reproduction involving endocrine regulation of the estrous cycle, conception, gestation, parturition, lactation and reproductive management.	25%	
Explain the basic concepts pertaining to fetal development and the events between fertilization and parturition	10%	
Explain ovarian and hormonal changes during the estrous cycle and show how this knowledge can be used towards developing estrus synchronization and ovulation induction protocols	10%	
Assess reproductive problems, design and manage practices to optimize reproductive performance	7%	

Relationship to Program Student Outcomes (Out of 100%)			
SLO 1	SLO 2	SLO 3	SLO 4

Evaluation	
Assessment Tool	Weight
Midterm Exam	50%
Final exam	50%

Policy	
Exams	All exams are closed book and notes. Exams will have different format including multiple-choice, matching, true/false, short answer or essay, drawing and/or labeling figures and calculating where it applies etc. The final exam is comprehensive (covers all the material). Incomplete exams need approval from the department chair.
Cheating	Prohibited; and in case of cheating the student will be subject to punishment according to the university regulations
Attendance	Attendance in class is required. Students are expected to attend class regularly. Participation in class discussions is strongly encouraged. No make-up exams unless absence was excused. Up to 20% in accordance with university policy.
Participation	Participation is highly encouraged. Participation means reading the assigned material before coming to class, raising issues or asking questions and in general helping to make the class as a positive learning experience.
Withdraw	According to the timeline defined by the university regulations.