

ANS 6751-Physiology of Reproduction

Description

The course provides graduate students with a state-of-the-art perspective on mammalian reproductive biology at molecular, cellular and whole-animal levels of organization. Among the topics covered are hypothalamic-pituitary function, oogenesis and spermatogenesis, folliculogenesis, uterine biology, embryonic development, pregnancy endocrinology, reproductive immunology, and photoperiodic and nutritional regulation of reproduction. The course is taught at a high level and is expected that students will have a good understanding of the fundamentals of reproductive biology and biochemistry.

Frequency of Offering

Alternate years (odd years). The course will next be offered in Spring 2017.

Prerequisites

BCH 5045 or equivalent. An undergraduate course in animal reproduction would be helpful.

Time and Place

Lectures on Tuesdays will be period 3 (9:35 - 10:25 am) and 4 (10:40 - 11:30 am). Lectures on Thursdays will be period 4 (10:40 - 11:30 am). Class will meet in Room 102 Bldg 459 (Animal Sciences Building). Lectures will be broadcast (details to be announced).

Course Coordinator

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Other Instructors

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Textbooks and Other Readings

There is no required textbook. Various readings will be handed out during the semester or made available by email.

Learning Objectives

After completion of the course, the student will comprehend mammalian reproductive biology at the molecular, cellular and whole-animal levels of organization. Among the topics covered are hypothalamic-pituitary function, oogenesis and spermatogenesis, folliculogenesis, uterine biology, embryonic development, pregnancy endocrinology, reproductive immunology, and photoperiodic and nutritional regulation of reproduction.

Schedule

Date	Topic	Instructor
5-Jan	Introduction	Hansen
10-Jan	Hypothalamic-pituitary axis	Hansen
10-Jan	Hypothalamic-pituitary axis	Hansen
12-Jan	Hypothalamic-pituitary axis	Hansen
17-Jan	Folliculogenesis and oogenesis	Bromfield
17-Jan	Folliculogenesis and oogenesis	Bromfield
19-Jan	Folliculogenesis and oogenesis	Bromfield
24-Jan	Corpus luteum	Thatcher
24-Jan	Corpus luteum	Thatcher
26-Jan	Corpus luteum	Thatcher
31-Jan	Spermatogenesis and testicular function	Hansen
31-Jan	Spermatogenesis and testicular function	Hansen
2-Feb	Spermatogenesis and testicular function	Hansen
7-Feb	Oocyte maturation	Hansen
7-Feb	Oocyte maturation	Hansen
9-Feb	Fertilization	Hansen
14-Feb	EXAM 1	
14-Feb	EXAM 1	
16-Feb	Fertilization	Hansen
21-Feb	Preimplantation embryo	Negron-Perez
21-Feb	Preimplantation embryo	Negron-Perez
23-Feb	Preimplantation embryo	Negron-Perez

28-Feb	Placenta	Hansen
28-Feb	Placenta	Hansen
2-Mar	Placenta	Hansen
7-Mar	SPRING BREAK	
7-Mar	SPRING BREAK	
9-Mar	SPRING BREAK	
14-Mar	Evolution of reproduction	Hansen
14-Mar	Evolution of reproduction	Hansen
16-Mar	Parturition	Hansen
21-Mar	Reproductive Immunology	Bromfield
21-Mar	Reproductive Immunology	Bromfield
23-Mar	Reproductive Immunology	Bromfield
28-Mar	EXAM 2	
28-Mar	EXAM 2	
30-Mar	Seasonality and photoperiod	Hansen
4-Apr	Seasonality and photoperiod	Hansen
4-Apr	Seasonality and photoperiod	Hansen
6-Apr	Lactation	Laporta
11-Apr	Lactation	Laporta
11-Apr	Lactation	Laporta
13-Apr	Embryonic stem cells	Hansen
18-Apr	EXAM 3	
18-Apr	EXAM 3	

Grading

The grading scale is A, 90-100%; B+, 86-89; B 80-85, etc. The final grade will be based on performance in the exams as well as in course participation. The breakdown is as follows:

Exam 1 - 30%

Exam 2 - 30%

Exam 3 - 30%

Participation - 10%

If you are having trouble with the course, see Pete Hansen.

Exams

Exams will primarily be essay, problem solving, and short answer questions. Exams will focus on material that is new since the last exam although it is expected that students will be familiar with concepts from the entire course. For each exam, the student will be able to select a specific number of questions to answer from a wider range of questions.

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

Communication about the Class

Email will be used as the major method for communicating when not in class. Therefore, provide Dr. Hansen with your email address, if one is available. Dr. Hansen's email is pjhansen@ufl.edu

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

-- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/

Counseling Services

Groups and Workshops

Outreach and Consultation

Self-Help Library

Wellness Coaching

--U Matter We Care, www.umatter.ufl.edu/

--Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

Student Complaints

https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf