

Physiology of Reproduction Laboratory- ANSC 495R

Lecture meets Thursdays from 12:30-2:20pm in ASTL-100

Instructor Ryan Cabot
Office LILY 3-228
Phone 494-1746
Email rcabot@purdue.edu
Office hours **Tuesdays 2-3 pm, in my office**
Course website <http://www.ansc.purdue.edu/courses/ansc495r>

Course description

This course is designed to introduce students to the essential principles of animal reproduction using an interactive laboratory. The objectives of this course are to enable students to:

- 1) Recognize macroscopic and histological differences between the different tissues in the male and female reproductive tracts
- 2) Be able to logically relate the structure of key reproductive tissues to their specialized functions in reproduction
- 3) Explain how difference between the reproductive systems of various domestic animal species imparts unique reproductive traits to a specific species
- 4) Understand essential principles of mammalian embryo and fetal physiology related to controlling reproduction.

Course outline

Aug 23: Introductions and start microscopy
Aug 30: Macroscopic male anatomy
Sept 6: Male histology
Sept 13: Semen evaluation
Sept 20: **Lab Practical #1**
Sept 27: Macroscopic female anatomy
Oct 4: Female histology
Oct 11: Oocyte handling
Oct 18: Follicular growth and ovulation
Oct 25: **Lab practical #2**
Nov 1: Fertilization
Nov 8: Farm visit (sheep unit)
Nov 15: Pregnant tracts
Nov 22: **Thanksgiving break-NO LAB**
Nov 29: Embryo development
Dec 6: Farm visit (swine unit)
Dec 10-15 **(Finals Week) Lab practical #3-Date to be set by University**
50% cumulative, 50% new material since lab practical #2

Textbook

No text is required, however I highly recommend Pathways to Pregnancy and Parturition, 2nd Edition, written by P.L. Senger, as a good reference book. This text is available from the bookstore.

Grading: A total of 450 points are possible in this course, divided as follows:

A. Lab practicals-totaling 300 points

Three in-class lab practical exams will be given throughout the semester, each worth 100 points. The majority of the information on the practical exams will involve macroscopic and microscopic tissue identifications, integrating how specific structures contribute to specific aspects of reproduction.

B. Homework-totaling 100 points

Six homework assignments will be given during the semester, each worth 20 points. Homework assignments are designed to get students to investigate a specific topic related to the current laboratory subject. Homework assignments will require students to synthesize material presented in lab to discuss a problem of broad scope. Homework assignments will mostly be written in nature. Students will **drop their lowest homework grade** from their point total to calculate their final grade.

C. Laboratory drawings-50 points

Students will be required to make sketches of two sets of histology slides. Each set is worth 25 points.

Your final grade for the course will be based on the percentage of total points you earn during the semester, after dropping your lowest homework score (450 total points possible). The grading scale for the course is as follows:

| | |
|-----------|---|
| 90%-above | A |
| 80-89% | B |
| 70-79% | C |
| 60-69% | D |
| Below 60% | F |

Missed laboratory practical exams, late homework

Dates for all three laboratory practical exams are printed on the course outline contained in this syllabus. NO MAKE UP practical exams will be given. Due to the time required in setting up the laboratory practical exams, alternative exam times cannot be given.

Homework assignments will not be accepted if turned in after the assigned due date. Late homework assignments will result in **ZERO** points.

Academic dishonesty

Cheating will not be tolerated. Any student caught cheating on an exam/quiz will receive **ZERO** points for that activity and an **F** in the course. Incidences of cheating will be reported to the Dean of Students. Cheating comes in many forms, activities such as copying the work from another student's quiz or exam, allowing another student to copy work from your exam/quiz, using any unauthorized notes during an in-class exam or quiz (electronic or otherwise), none of which will be tolerated.

Attendance

It is in the student's best interest to attend each laboratory. Your exam material will be based on the material presented during each laboratory session. You are responsible for any announcements given during class (e.g., class hand-outs containing valuable information for exams, announcement of review sessions for exams, or a change in a due date for homework assignment).