

BISC 335 – Human Reproduction (3 credits)

Fall 2013, TX 9:30am-10:45pm, 303 Shoemaker Hall

Course learning objectives:

The course objective is to learn about the intricacies of human reproduction, taking into account evolution, ecology, biology, and society. Students will gain knowledge about human reproduction from the professor, textbook, scientific literature, invited guests, student conducted interviews, case studies and videos. Students will be able to apply knowledge of human reproduction in order to understand inheritance, conception (including assisted reproductive technologies), contraception, and other facets associated with human reproduction. By the end of the semester, students will be able to differentiate between the biological aspects of human reproduction and the social influences on human reproduction.

Pre-requisites are BISC 160, 161, 162, and 163 or approved equivalent.

Professor:

Dr. Tammy Goulet, 524 Shoemaker Hall, Tel: 915-7457
e-mail: tlgoulet@olemiss.edu. Write BISC 335 in subject heading.
Office Hours: By appointment

Course textbook:

Jones, R.E. and K.H. Lopez. 2006. Human Reproductive Biology. Third Edition. Academic Press (Elsevier). ISBN-13: 978-0-12-088465. ISBN-10: 0-12-088465-8

Scientific articles assigned.

Course requirements:

Exams: During the semester, there will be three exams. The exams will include both factual and application questions. You may be required to read a published paper and answer questions about the paper as part of the exam. A cumulative final will be given during final's week. All exams will be taken using a PRS radio frequency clicker. If you do not have a clicker, you will be given one to use during the course. Exams will be based on material taught in class supported by assigned readings from the textbook and scientific articles. Students are responsible for all material and announcements made in class. Exams will include multiple-choice questions and multiple formats of fill-in the blank questions.

In-Class Clicker Questions: The number, frequency and time during class in which clicker questions will be asked are at the discretion of the instructor, but students need to be ready to answer clicker question every time class meets. Clicker questions will be either on assigned readings or on the material covered in class. Students will answer the clicker questions with the PRS clicker. The total number of in class clicker question points will be determined at the end of

the semester. That number will be set to 120% (giving 20% extra credit). From this number, the number of in class clicker question points yielding 100% will be calculated. Then, a calculation will be performed in order to determine the number of points a student earned out of the 25 in class clicker question points ($\frac{\# \text{ in class clicker question points obtained}}{\# \text{ in class clicker question points yielding 100\%}} * 25$). Since extra credit is embedded in the in class clicker question point calculation, there will not be an opportunity to make up in class clicker questions. Excused absences should be reported to the instructor and will be taken into consideration.

Interviews: During the semester, students will conduct interviews, and will re-visit the interviewee to ask a follow-up question. The interview shall be anonymous, but the age and gender of the interviewee will be noted. The only rule – students need to conduct a real interview. Students shall not make up an interview. Students will receive credit for handing in the complete interviews and a follow up question to the interview.

Class participation and group work: You will receive points for class participation. This participation also includes your contribution to the group activities that will occur during the class time.

A total of 300 points will be divided into:

1. Three exams – 50 points each (150 points).
Exam 1 – Sep. 19; Exam 2 – Oct. 15; Exam 3 – Nov. 7
2. In-class clicker questions – 25 points.
3. Interviews and other written assignments – 15 points.
4. Class participation/group work – 10 points.
5. Final exam – 100 points.
Final exam – Thursday Dec 12 at 8 am in 303 Shoemaker Hall.

Grade distribution:

A = 270-300; B = 240-269; C = 210 –239; D = 180 – 209; F = below 179.

Exam make-up policy:

- (1) A student who misses one exam can make it up, **if the instructor judges that the student had a good reason for missing** (family emergency, health issues). The make up exam will be given within a week of the student's return to school.
- (2) Under special circumstances, and with the instructor's approval (e.g. University-excused absence), students may arrange ahead of time to make-up an exam before the class exam.
- (3) In all cases, students must notify the instructor that they missed the exam as soon as possible, make an arrangement to make-up the exam, and bring appropriate documentation to justify their absence. Otherwise they will earn a zero on that exam.

Academic misconduct and its consequences:

According to UM Academic Conduct and Discipline policy: "Dishonesty, cheating, or plagiarism, or knowingly furnishing false information to the University are regarded as particularly serious offenses." In this course, for example, cheating on an exam or in class

clicker questions, or taking an exam or in class clicker questions for someone else, or copying an assignment from someone else and handing it as one's own, will be severely punished. At the discretion of the instructor, the student can receive an F on the assignment or an F in the class (without the possibility of invoking the forgiveness policy).

This syllabus is subject to change at the discretion of the instructor to accommodate instructional, and/or student needs.

Course Topics:

Week	Topic	Jones & Lopez	Additional Information
1	Why sex? Sexual selection Internal vs. external		Video - Why Sex? Homework assignment.
2	Humans - internal fertilization – STIs	Ch. 18	
2	Mitosis & Meiosis		General Biology Textbook, Case Study
2&3	Mendelian genetics		General Biology Textbook
3	Sexual differentiation	Ch. 5	Case Study
4	Endocrinology & hormones	Ch. 1	
5	Male reproductive system	Ch. 4	
5	Female reproductive system	Ch. 2	
5	Female menstrual cycle	Ch. 3	
6-7	The avoidance of conception Birth control Social & political issues of birth control	Ch. 14, 15 partial	Video –The pill
7-8	Human Sexual Response	Ch. 8	Anim. Behav. 1993. Vol 46, Issue 5 (2 articles) 861-885, 881-909.
8	Conception	Ch. 16	Video – Making babies Video- The human body
9-10	Conception: Infertility Development of embryo Morning sickness	Ch. 10	Video – Journey into life Video – Miracle of life Quar. Rev. Biol. 2000. 113-148
11	Problems Chromosomal, Genetic, Maternal, Environment	Ch. 10	
12	Prenatal testing & Genetic counseling	Ch. 10	
13	Birth & society	Ch. 11	Sci. Amer. 2001. Kline.
14	Fall Break		
15	Birth & beyond birth Post-partum problems Breastfeeding	Ch. 12	Video – The Business of being born Video – Kill or cure?