

Reproductive Physiology: **BIOL 830P-01**
Course Outline- SUMMER 2021

Course Description

This course discusses the role of hormones in regulating reproduction in mammals, with an emphasis in humans. Topics to be covered include: 1) sexual differentiation of the brain, 2) spermatogenesis and oogenesis, 3) pregnancy, parturition, and lactation, and 4) fertility and sexually transmitted diseases. Background in anatomy and physiology is recommended.

Course Objectives

1. Students will describe the changes that occur in the reproductive system over the lifetime of an individual.
2. Students will identify the major hormones involved in reproduction and describe their role in regulating reproduction in males and females.
3. Students will describe processes that can lead to dysfunction of the reproductive system.

Instructor

Dr. Nicholas Hobbs
220 Bruner Hall
Phone: (308) 865-1572
Email (preferred contact method): hobbsjn@unk.edu
(Allow me a chance to respond to your email)
Office hours: MWF 9:00-10:00; Other times by appointment
Department Secretary: 865-8548

Required Materials

Textbook:

“Human Reproductive Biology. 4th edition” by Richard Jones and Kristin Lopez (ISBN 0-12-382184-3)

Technology: As this is an online class, you will need a computer/laptop with access to the internet, a microphone and webcam, and the following programs: Microsoft PowerPoint, Microsoft Word, and Adobe Acrobat or another program to read PDFs.

Tentative Schedule

| Week | Topic(s) | Chapter(s) | Evaluation |
|-------------|---|-------------------|--|
| 1 (May 24) | Endocrinology, Brain, and Pituitary Gland; Female and Male Reproductive Systems | 1, 2, 4 | Syllabus Quiz, Introduction Video, Weekly Exam 1 |
| 2 (May 31) | Sexual Differentiation; Brain Sex | 5, 16 | Weekly Exam 2, Case Study 1 |
| 3 (June 7) | Puberty; Reproductive Aging | 6, 7 | Weekly Exam 3 |
| 4 (June 14) | Menstrual Cycle; Gamete Transport and Fertilization | 3, 9 | Weekly Exam 4, Case Study 2 |
| 5 (June 21) | Human Sexual Response; Pregnancy | 8, 10 | Weekly Exam 5 |

| | | | |
|-------------|--|--------|-----------------------------|
| 6 (June 28) | Labor and Birth; The Neonate and the New Parents | 11, 12 | Weekly Exam 6 |
| 7 (July 5) | Induced Abortion; Infertility | 14, 15 | Weekly Exam 7, Case Study 3 |
| 8 (July 12) | Contraception; Sexually Transmitted Diseases | 13, 17 | Weekly Exam 8 |

Point Breakdown

8 weekly exams (50 pts each)- 400 pts total
 3 Discussion Boards (20 pts each)- 60 pts total
 Syllabus quiz- 10 pts total
 Introduction video- 10 pts total
 Total points possible: 480 pts

Grade Assignment

Grades will be assigned using the standard grading scale for the Department of Biology, as follows: A (93-100%), A- (90-92%), B+ (88-89%), B (83-87%), B- (80-82%), C+ (78-79%), C (73-77%), C- (70-72%), D+ (68-69%), D (63-67%), D- (60-62%), and F (below 60%). Grade assignments are final unless there is a calculation error. **There will be no rounding of the grades; a 79.9% is a C+, not a B-**. Scaling of grades is up to my discretion (don't count on it).

Exams

You will have 8 weekly exams for this course. Each exam will cover the material covered that same week. For example, Weekly Test 1 takes place during week 1 (May 24th – May 30th), and covers materials from week 1 (Chapters 1, 2, and 4). Each exam will be worth 50 points. Forty points will come from multiple choice, fill in the blank, and true/false questions, and the remaining 10 points will come from 1-2 essay questions. All online exams will be available for one week (12:01 AM Central Time Monday through 11:59 PM Central Time Sunday). **THE EXCEPTION TO THIS IS FOR WEEKLY TEST 8, AS THE COURSE ENDS FRIDAY, JULY 16. AS SUCH, THIS EXAM WILL CLOSE AT 5:00 PM CENTRAL TIME ON FRIDAY, JULY 16.** You will have 60 minutes to complete each weekly test. Exams are set so that you can exit (Canvas crashes, for example) and re-enter the exam, but the timer keeps running.

Case Studies/Discussion Boards

Throughout the semester, students will be presented with three different discussion topics/case studies related to the material covered in lecture (Weeks 2, 4, and 7). Students will submit their posts onto the appropriate discussion board on Canvas. Discussion boards will be unlocked on Mondays at 12:01 AM Central Time and locked on Fridays at 11:59 PM Central Time.

Please see the separate rubric for a complete breakdown of how I will be grading the discussion boards. Briefly, each discussion board is worth 20 points. Students will be scored on three criteria: 1) evidence of critical thinking (maximum of 8 pts), 2) minimum posting requirements (maximum of 6 points), and 3) responses to classmates and Dr. Hobbs (maximum of 6 points). **Doing the minimum will only provide you with the opportunity to be scored and possibly earn 2 of the possible 20 points.**

I do not expect you to spend 5 hours per week in each of these Discussion Boards. I expect, given the criteria listed in the rubric, for you to post **most days Monday-Friday**. I will not be keeping track of time spent on the Discussion Board, as it takes time to read and respond to the posts. You should be **wanting** to post every day. You do not need a peer-reviewed reference for every post, but if you are stating an opinion, you should provide support for it with data/evidence from a peer-reviewed source (not Wikipedia!).

Remember, Discussion Boards are for just that, **DISCUSSION!** Unless you are the first person answering the question(s) posted, you should **not** be starting a new thread. You should be replying to someone else. I am not concerned that everyone answers the posted question. The question or questions serve as a prompt for us to begin discussion. I want discussion, not simply posting for points.

What should this look like? (Example taken from Dr. Carlson's Bioethics of HeLa Cells)

Question: Do birds have fur?

Dr. Hobbs: Birds do not have fur, they have feathers. These feathers are used in mating dances and rituals. Many times, it is the male of the species that has the more ornamental feathers. This helps in attracting a mate (Leghorn 2016)

Reference: Leghorn F. 2016. Use of ornamental feathers in mating. *Ornithology*, 40:55-65.
Doi:987.890/99

Reply from student 1: Dr. Hobbs, I disagree with you. Some birds do have fur. If we look at the ancient FleeceFlyer, it had a thick covering of purple fur, not feathers. It was a flying bird also. (Jurassic 2015)

Reference: Jurassic P. 2015. FleeceFlyer: The Original One-Eyed One-Horned Flying Purple People Eater. *Wilson's Transactions*, 56: 98-100.

Reply to student 1 from student 2: Do you have a picture of this? I would like to know how they determined this could fly? Was it large? This is amazing!

Yes, I will be in Discussion Board M-F, this is the reason I set it up. I love to discuss with you! I will play "devil's advocate". I will ask questions, etc. I am also **the only** person who gets credit for saying "Awesome! I agree!" or any phrases like this.

If you have any questions on the score you earned for the week, please simply email me. Also, please email any questions!

As this is an online format, tone and expression may not be readily discerned from your posts. Please avoid the use of online or text message abbreviations or symbols. Your posts should show respect for the views and experiences of your other classmates. I will remove any offensive posts from the board and these posts will not be considered for grading purposes.

Policy on Incomplete

To be considered for an "Incomplete" in Biology 830P-01:

1. You must submit the reasons you cannot complete the scheduled work. This must include a copy of your class schedule and description of your responsibilities outside the classroom. This should be done in writing and include confirmation from your employer when appropriate.
2. You must specify the assignments you have missed and a schedule of plans to complete them.

I expect all students to progress through the requirements for Biology 837 in a timely fashion. Unless your circumstance is quite remarkable, do not consider an incomplete.

Academic Integrity Policy

This policy is stated in the Graduate Catalog or at

<https://catalog.unk.edu/graduate/academics/academic-regulations/expectations-in-the-classroom/academic-integrity-policy/>

The bottom line is no cheating. Plagiarism will not be tolerated.

University Policies Related to COVID-19: The university community is deeply concerned for the well-being of its students, faculty, and staff. Keeping each other as safe as possible will require commitment from each of us; failure to do so will literally place lives in danger. The full policy relating to mitigation of the spread of infectious diseases can be found at <https://www.unk.edu/coronavirus/> Policies that apply to all courses (online, remote, blended, or face-to-face) include:

- Students shall monitor their health daily. No student shall attend classes in person while sick. Those who have had contact with positive-tested individuals or show COVID-19 related symptoms must have clearance from the Public Health Center prior to returning to face-to-face classes. There will be no penalties for missing classes for COVID-19 related absences. Students will still be responsible for course content through alternative attendance or other options arranged with the instructor.

Additional policies specific to face-to-face instruction include the following:

1. None for this course

Questions regarding COVID-19 should be directed to the Public Health Center unkhealth@unk.edu or 308-865-8254. Questions regarding the COVID-19 academic policy should be directed to Sr. Vice Chancellor Bicak at bicakc@unk.edu. Questions regarding department specific requirements should be directed to the chair of Biology, Julie Shaffer, at shafferjj@unk.edu.

The above directions must be followed by everyone for the health and safety of our University. Students who do not comply may face disciplinary action from the university. Violations of any University or Campus Policy is a violation of the Student Code of Conduct.

What happens if we go remote? We are already meeting remotely, so nothing will change.

Students with Disabilities

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students with documented disabilities. To receive accommodation services for a disability, students must be registered with the UNK Disabilities Services for Students (DSS) office, 175 Memorial Student Affairs Building, 308-865-8214 or by email unkdso@unk.edu

UNK Statement of Diversity & Inclusion

UNK stands in solidarity and unity with our students of color, our LatinX and international students, our LGBTQIA+ students and students from other marginalized groups in opposition to racism and prejudice in any form, wherever it may exist. It is the job of institutions of higher education, indeed their duty, to provide a haven for the safe and meaningful exchange of ideas and to support peaceful disagreement and discussion. In our classes, we strive to maintain a positive learning environment based upon open communication and mutual respect. UNK does not discriminate on the basis of race, color, national origin, age, religion, sex, gender, sexual orientation, disability or political affiliation. Respect for the diversity of our backgrounds and varied life experiences is essential to learning from our similarities as well as our differences. The following link provides resources and other information regarding D&I:

<https://www.unk.edu/about/equity-access-diversity.php>

Students Who are Pregnant

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students who are pregnant. To receive accommodation services due to pregnancy, students must contact Cindy Ference in Student Health, 308-865-8219. The following link provides information for students and faculty regarding pregnancy rights.

<http://www.nwlc.org/resource/pregnant-and-parenting-students-rights-faqs-college-and-graduate-students>

Reporting Student Sexual Harassment, Sexual Violence or Sexual Assault

Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible. Any student who believes she or he may be the victim of sexual misconduct is encouraged to report to one or more of the following resources:

Local Domestic Violence, Sexual Assault Advocacy Agency 308-237-2599

Campus Police (or Security) 308-865-8911

Title IX Coordinator 308-865-8655

Retaliation against the student making the report, whether by students or University employees, will not be tolerated.

Problems/Questions

If you have questions then ask or come and see me or contact me via e-mail or phone. If you are having problems with the course come and see me before it is too late (not the week before your position paper is due or when the course is over).