

BIOLOGY OF REPRODUCTION
BIOL 383, Spring 2019

Instructor: Dr. Karin Bodensteiner

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Office Hours: Wednesdays 1:00-3:00 p.m., Fridays 9:00-10:00 a.m., or by appointment

Class Meetings: CBB 165, Monday/Wednesday/Friday 11:00-11:50 a.m.

Additional Course Information: Available off of Desire 2 Learn (D2L)

Final Exam: May 15, 2019, 12:30-2:30 p.m., CBB 165

Textbook: Biology of Human Reproduction, by Ramón Piñón, Jr. University Science Books, 2002. Available for rent in the bookstore. (Available textbooks on reproduction are limited, and, overall, not great, but the basics of human reproduction are covered well in this book.)

Course Description:

Survey of mammalian reproduction with an emphasis on humans, including sexual development and behavior, fertilization, pregnancy, parturition (birth), lactation, natural and synthetic control of contraception, and fertility.

Prerequisites: Biology 381 or 385; Chemistry 105 or 117; or instructor consent.

Student Learning Outcomes: (with diligent effort on their part, students should be able to...)

1. Describe key reproductive processes from gametogenesis through senescence.
2. Compare and contrast reproductive strategies, processes, and behaviors.
3. Apply knowledge of reproductive biology to broader personal and societal issues.
4. Recognize critical thinking as a process of identifying, analyzing, evaluating, and constructing reasoning in deciding what conclusions to draw or actions to take.

Point Distribution:

Lecture Exams	4 @ 100 pts each
Topic and Outlines	20 pts
Annotated Bibliography	20 pts
Student Presentation	80 pts
Professionalism	50 pts
Total	580 pts

Grading Scale (out of 100% of Total):

A ≥ 93-100	C = 73-76
A- = 90-92	C- = 70-72
B+ = 87-89	D+ = 67-69
B = 83-86	D = 60-66
B- = 80-82	F < 60.0
C+ = 77-79	

Exams and Other Graded Work:

Exams: There will be four lecture exams over the course of the semester. Each exam is worth 100 points and will likely consist of multiple choice, definitions, fill-ins, matching, and short answer questions. In addition, application of information provided in lecture to an unknown problem may be required. Course material will build over the semester and it will be important for you to remember and apply basic information learned early on to material covered later in the course. All exams and assignments will count towards the final grade (i.e. no grades will be dropped).

Student Presentations: Over the course of the semester, you will research and present on a topic of your choosing. Presentations will be given in class **May 8th or May 10th**. (We will draw numbers to determine dates). For your presentation, choose a topic from the field of reproductive biology that interests you and go with it. For example, you could choose to research a rare developmental disorder, discuss the mechanism behind a reproductive disease, present information on a topic we have not covered in class, or go over something from lecture in more depth. The idea is to expose you to fields of reproductive biology beyond what we can cover in the classroom, to allow you to work on oral presentation skills, and to teach your classmates in the process. To help you get started, your topic must be cleared with me by **Monday, February 18th**, an annotated bibliography and tentative outline are **due Friday, March 8th**, and a final outline is **due Friday, April 5th**. If you have difficulty finding information on your topic, please see me as soon as possible.

Some guidelines for your presentations:

- Presentations should be approximately 10 minutes in length with a question and answer period following. Presentations will be critiqued by your classmates and instructor and will be graded on content, format, and overall knowledge of the subject (see rubric). When you are not the one giving the presentation, you will be evaluated on your level of participation during the question and answer periods.
- Your presentation should have a single clear purpose, tell a unified story, and be understood readily. The presentation should follow the basic format of: brief introduction/historical background; current research/knowledge of the topic; future directions/recommendations; and a summary/take home message.
- Presentations should be in Microsoft PowerPoint or other suitable/widely accessible presentation software (e.g. Prezi).
- Each slide should have a simple, unified format and be free from nonessential information. (i.e. It is better to use two slides than one cluttered slide).
- Word slides should be typed in bold and double-spaced and the font used should be easily readable by someone in the back of the room.
- Watch color choices. Some people are color blind and this makes some colors (e.g. red and green) difficult to distinguish. It is usually easiest to see slides that have a dark background and light-colored type or a light background and dark colored type. Avoid using 3-dimensional graphs unless 3-dimensional information is being presented.
- The best talks spend an average of 1-2 minutes per slide. A timed rehearsal would be wise (hint, hint).
- Finally, after a semester of research, you will probably know more about your topic than anyone in the room. Speak with confidence and use the presentation to teach the rest of us what you have learned.
☺

Electronic versions of your presentation are due to your instructor by 12:00 p.m. CST, the DAY OF YOUR PRESENTATION.

Professionalism:

Attendance: Your commitment to your classes is among the most important things in your life right now. You are expected to attend all lectures and to arrive on time and ready to learn. Three unexcused absences will result in a 1/3 reduction in your final grade. If you will miss a class due to a college-sanctioned event, you must notify your instructor in advance. Exams must be taken at the assigned time and alterations to this schedule will only be made for personal injury or emergencies (e.g. death in the family, serious accident, or hospitalization). In such cases, evidence of some kind must be provided and you are expected to make arrangements within 24 hours of the exam to schedule a make-up. Make-up exams and assignments should be completed within one week; format will be at the discretion of the instructor. It is your responsibility to get notes for any missed classes.

Classroom Behavior: Complete mutual respect and courtesy is expected and all students should come to class ready to be engaged and actively participate in the classroom experience. Open, honest discussion is encouraged and will factor in to your professionalism grade. To facilitate active learning, cell phones and other electronic devices must be turned off and stowed away while class and/or lab is in session.

Grade Discrepancies:

Grades will be posted on D2L throughout the semester. If there are discrepancies on any assignments or exams, they can be addressed with the instructor, in person, up to one week after the assignment is handed back in class. After this time, the grade will stand with whatever was originally granted.

Academic Policies:

Academic misconduct (as outlined and defined by Chapter 14 in the Academic Handbook: <https://www.uwsp.edu/acadaff/Pages/handbook.aspx>) will not be tolerated. Cheating or plagiarism will result in a score of zero for a give assessment and/or additional disciplinary action.

Disability Services:

Any student who feels that they may need an accommodation based on the impact of a disability should contact the Disability and Assistive Technology Center (room 609 Albertson Hall, datctr@uwsp.edu). If you have already registered with this office and would like to discuss your class accommodations for the semester, please meet with me.

Emergency Response Guidance:

- In the event of a medical emergency call 9-1-1 and guide emergency responders to victim.
- In the event of a tornado warning, proceed to lowest level interior room without windows. Avoid wide-span structures (gyms, pools, or large classrooms).
- In the event of a fire alarm, evacuate building in a calm manner, meet on sidewalk to east of building, near UWSP sign. Notify instructor or emergency command personnel of any missing individuals.
- Active Shooter/Code React – Run/Escapes, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Call 9-1-1 when it is safe to do so. Follow instructions of emergency responders.
- See UW-Stevens Point Emergency Procedures at www.uwsp.edu/rmgt/Pages/em/procedures for details on all emergency response protocols at UW-Stevens Point.

TENTATIVE COURSE SCHEDULE

Week	Date	Topic	Relevant Chapter(s)
1	1/23	Introduction to Reproductive Biology	1
	1/25	Male Reproductive Anatomy	
2	1/28	Female Reproductive Anatomy	
	1/30	Basic Reproductive Endocrinology	3
3	2/1	Mitosis and Meiosis	2
	2/4	Sexual Differentiation in Mammals	4
	2/6	Abnormalities of Sexual Differentiation	14
4	2/8	Oogenesis and Follicular Development	5
	2/11	Oogenesis and Follicular Development	5
	2/13	Catch-up and Review	
5	2/15	Exam 1	
	2/18	Ovulatory and Menstrual Cycles; Topic Due	5
	2/20	Ovulatory and Menstrual Cycles	5
	2/22	The Testis and Testicular Function	6
6	2/25	The Testis and Testicular Function	6
	2/27	The Brain and Reproduction	7
	2/29	The Brain and Reproduction	7
7	3/4	The Brain and Reproduction	7
	3/6	Puberty	8
	3/8	Puberty; Draft Outline and Bibliography Due	8
8	3/11	Puberty	8
	3/13	Catch-up and Review	
	3/15	Exam 2	
9	3/18 – 3/22	SPRING BREAK	
10	3/25	Stress and Reproduction	9
	3/27	Aging and Reproduction	10
	3/29	The Process of Fertilization	11
11	4/1	The Process of Fertilization	11
	4/3	Implantation and Early Development	11
	4/5	Implantation and Early Development; Final Outline Due	11
12	4/8	Placentation, Parturition, and Lactation	12
	4/10	Placentation, Parturition, and Lactation	12
	4/12	Catch-up and Review	
13	4/15	Exam 3	
	4/17	Reproductive Toxicology	13
	4/19	Reproductive Toxicology	13
14	4/22	Contraception and Fertility Control	15
	4/24	Infertility	16
	4/26	Assisted Reproductive Technologies	16
15	4/29	Assisted Reproductive Technologies	16
	5/1	Reproductive Cancers	18
	5/3	Biology of Human Sexuality	19
16	5/6	Student Presentations	
	5/8	Student Presentations	
	5/10	Catch-up and Review	
Finals	5/15	Exam 4; 12:30 – 2:30 p.m., CBB 165	

