PSYC431/NSCI435

Hormones and Behavior

Fall 2019

PROFESSOR: Dr. Jaclyn M. Schwarz, Assistant Professor of Psychological and Brain Sciences

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Office Hours: 1:30-3 PM on Mondays and Wednesdays

Class Meetings: Monday, Wednesday, Friday from 10:10 am - 11 am in ISE Lab 207

Summary: In this course, we will examine how hormones produce changes in behavior. By the end of this course, I am hopeful that you will

• understand the biology of hormone actions in the body and in the brain, and how they affect behavior;

- be able to interpret these concepts and how they apply to your life;
- confront misconceptions and evaluate popular ideas of hormones and behavior in the media;
- incorporate personal opinions and evaluate your own personal experiences on this topic;
- learn how to critically consider and evaluate facts in any facet of your life;
- learn the skills associated with teamwork and accountability.

We will focus on the influence of hormones on sexual differentiation of the brain, sex / mating behavior, parental behavior, pregnancy and behavior, aggression, stress and depression, learning and memory, and homeostasis with a special emphasis on how the interaction between hormones and behavior can change from birth, to puberty, to old age.

Course Organization in Four Parts:

- **1. Required reading outside of class** will provide you with the foundational knowledge of brain and behavior
- **2. Short quizzes** will help to solidify this knowledge and help you (and me) to assess your understanding of the material that is assigned for reading and given in lectures the days before.
- 3. Short lectures provide the foundational knowledge of hormones and behavior
- **4. Team-based Learning activities** will provide more in-depth discussion of specific topics and research findings

We will use science and research to guide us in our understanding of hormones and behavior, but I do not expect you to have a science background to understand the topics that will be covered in class.

Important NOTES:

- Lectures will be recorded via UD Capture and uploaded directly to Canvas.
- Required readings will be provided on Canvas for download at least a few days before class.
- Bring your iClicker to class!
- **Suggested Textbook (not required):** *An Introduction to Behavioral Endocrinology*, 4th Edition, by Randy J. Nelson, PhD. **If you decide to use the textbook, please let me know and I can provide the corresponding chapters for your benefit.**

Course Assignments

(1) Team-Based Learning Sessions (225 total points)

As part of the course, you will be a member of a permanent team that will be decided by me.

There are 16 team-based learning sessions throughout the semester; however, at the end of the semester, <u>I will select the lowest quiz grade to be "dropped" from your final grade</u>. Thus your final grade will only include 15 TBLs (15 X 15 points = 225 points of your final grade)

A work of primary literature or experimental data will be available for download on Canvas. You **must** read this prior to the start of the Team-Based learning session. This is not optional. If you do not read the assigned material, you may not get the points for the day. The Team-Based learning session will be focused on analyzing, synthesizing, and applying the concepts covered in lecture the days before *with* the research paper provided to you. During the Team-Based learning sessions, you will work in your teams to answer ~ **three** application questions based on the research paper/data. Each application question is worth 5 points. Thus, each day of Team-Based Learning, there is the potential to earn **15 points** with your team (3 application questions X 5 points each = 15 team points total each day of Team Based Learning).

These application questions will be completed on paper, in class. At least one member of your team will need a pen to complete these application questions.

Preparation for Class and Participation. Your group will be called on in class to answer application questions, recall information, and/ or evaluate or synthesize information. You are expected to participate in the activities of your group and to contribute in a meaningful way that will lead to the best possible answer by your team. Teams are expected to participate in the activities assigned and to volunteer responses during Team-Based learning sessions.

Classroom Attendance. Students play a vital role in the success and excitement of this course, because the value of the course is in the activities and discussions that will occur during class. Classroom attendance is mandatory to receive points for the assessments occurring during that day. Arriving to class late for Team-Based learning sessions and leaving a class meeting before all activities are completed (the end of the class) on Team-Based learning sessions will be considered an absence and may result in a loss of all points accumulated for that session. Excused absences will be determined on a case-by-case basis.

(1a) Team Based Learning Individual Evaluations (40 points total)

Individual evaluations of your performance and contribution to TBL will occur two times during the semester. The evaluation will be performed by other members of your team **and** by you (e.g. you will rate yourself). **They (and you) will rate your contribution to the team based learning activities on a scale of 0-20 (20 being the highest contribution).** Your peer evaluation score will be an average of your evaluation scores and the professor's evaluation of your involvement (from 0-20 total). <u>You</u> must complete the peer evaluation for each of your teammates, including an evaluation of yourself, in order to receive full credit for the TBL Individual Evaluation. These evaluations will be due, via email to me, **on March 22nd and again on May 20th.**

(2) In-class Quizzes using iClicker (85 points total)

On the days that we do not have Team-Based Learning activities, there will be a short 5 question quiz, either at the beginning or at the end of class. *Occasionally these quizzes may be completed with the help of your team, but MOST quizzes will assess YOUR individual understanding of the material.*

iClickers will be used to assess and promote learning in this class. Bring your clicker to class every day to obtain credit for the activities that use them. IF YOU DO NOT BRING YOUR CLICKER, YOU CANNOT PARTICIPATE IN THE QUIZ AND YOU WILL NOT EARN THE QUIZ POINTS FOR THE DAY. I will not allow you to write the answers on a piece of paper instead.

At the end of the semester, I will select the two lowest quiz grades to be "dropped" from your final grade.

For more info about clickers, visit: http://ats.udel.edu/clickers/faq.php. In keeping with UD's Code of Conduct related to cheating, attempts to use more than one clicker per class period are subject to academic dishonesty ramifications. Register your clicker using the link available in our Canvas course. One registration provides information to all your instructors in classes using i>clickers and Canvas. You can register multiple clickers if you are concerned about picking up your roommate's, or if you lose your clicker mid-semester.

(3) Mid-term Exam (125 points) and Final Exam (125 points)

Two exams will be given (a mid-term and a final exam – see specific dates below). These exams will consist of short answer and multiple choice questions. The exams will include questions about specific topics covered in the reading, the lecture, and the team based learning sessions. I may ask you to integrate or compare some of the topics you have learned in the different classes. The Mid-term exam will cover class material from February 13^{th} – March 22^{nd} , and the Final exam will cover class material from March 27^{th} – May 20^{th} . **Thus, the Final exam is not cumulative.** Each exam is worth 125 points.

No make-up exams will be given for an unexcused absence. Only the professor can grant an excused absence for an exam, which will be determined on a case-by-case basis. You must contact the professor at least 2 weeks prior to the exam for athletic or religious conflicts. If you are too ill to take an examination, you must contact the professor PRIOR to that exam. If you are hospitalized or require emergency treatment, you may have a member of the family contact the professor on your behalf. You may be asked to provide documentation of the emergency. In these cases, a make-up exam will be administered at the discretion of the professor.

Points:

Your final grade will be based on the total number of points earned on the following components:

1. Quizzes (17 quizzes X 5 points each) 85 points total

2. Team Based Learning Assignments (15 TBLs X 15 points each) **225 points total**

3. Exams (2 X 125 points each) 250 points total

4. TBL Individual Evaluations (2 X 20 points each) 40 points total

600 POINTS TOTAL

Final Grade:

There will be no rounding or "curving". You can calculate your final grade throughout the semester using the table below.

Grade	Percentage	Total Points Needed
A	93 - 100%	558 - 600
A-	90 to < 93%	540 – 557.5
B+	87 to < 90%	522 - 539.5
В	83 to < 87%	498 – 521.5
B-	80 to < 83%	480 - 497.5
C+	77 to < 80%	462 - 479.5
С	73 to < 77%	438 - 461.5
C-	70 to < 73%	420 - 437.5
D+	67 to < 70%	402 - 419.5
D	63 to < 67%	378 - 401.5
D-	60 to < 63%	360 – 377.5
F	< 60%	< 360 points