

**Instructor:**  
**Dr. Saundra TenBroeck**  
 Room 100 ANS Bldg.  
 352-392-2789  
[sht@ufl.edu](mailto:sht@ufl.edu)

**Office Hours**  
**Tuesday, Thursday**  
**10:30 – noon**  
 or email for an  
 appointment

**Lab instructor:**  
**Justin Callaham**  
 Room 210 ANS Bldg.  
 352 294 6754  
[callaham@ufl.edu](mailto:callaham@ufl.edu)

**Meets T,R 2<sup>nd</sup> Period Virtual Lab R 6&7<sup>th</sup> HTU Classroom**

ANS 4318C is an equine reproductive management course. Topics will include anatomy, the estrous cycle, hormones and pharmacologic manipulation, gametogenesis, embryonic and fetal development, parturition, foal care, assisted technologies, and management strategies. Classroom and laboratory activities and assignments will integrate the science of reproductive physiology with practical horse breeding management applications and skills development with the intended outcome to produce a foal for a profit.

The educational objectives of this course are to:

1. Understand the unique aspects of equine reproductive anatomy & physiology.
2. Develop an understanding of and limited skills in basic principles of breeding soundness exams, semen collection, semen evaluation, semen freezing, estrous synchronization, artificial insemination, embryo transfer and pregnancy diagnosis.
3. Recognize the signs of impending parturition, process of foaling and analyze neonatal outcomes.
4. Summarize current best management reproductive practices in modern horse breeding

**Textbooks:** **Pathways to Pregnancy and Parturition.** 3<sup>rd</sup> Edition 2012, P.L. Senger, Current Conceptions, Inc, Pullman, WA.

**Manual of Equine Reproduction.** 3<sup>rd</sup> Edition 2010, S.P. Brinsko, T.L. Blanchard, D.D. Varner, J.Schumacher, C.C. Love, Elsevier Health Sciences

**Prerequisite:** ANS-3319C Reproductive Physiology and Endocrinology in Domestic Animals

### **Course Information**

There are no required textbooks for this course but two are recommended. I will post supplemental material on Canvas. Power points will not be provided for lectures however skeleton outlines, diagrams and images will be posted on Canvas prior to lecture. The location of labs will vary between room 155 and the HTU. When labs are at the HTU, you will be given an extra 10 minutes to arrive. Quizzes will be given at the beginning of lab each week. Labs meeting at the Horse Teaching Unit will begin in the arena classroom at 1:00.

### **Dress Code**

College is a time of preparation for joining the work force and you should take pride in your appearance. Bare midriffs, spaghetti-strap tops, short shorts, mini-skirts and clothing that insufficiently covers your undergarments are specifically prohibited. Hats must be removed in the classroom and during quizzes or exams. Furthermore, as representatives of this class, our department and our university you are expected to dress, and to act, in a professional manner at all times. Long pants and boots or close toed shoes are required to participate in labs with horse handling.

**Grades and Grade Points**

Weekly laboratory quizzes (12@10 pts. each)	40%	Lowest quiz score dropped
Midterm (100 points) in person during lab period	20%	
Final exam (100 points) in person exam week	20%	
Assignments (posted on Canvas by due date)	20%	

Points earned in each category will be calculated as a percentage of the final grade as listed above. The final course will correspond to a letter grade based on the chart below:

<b>A</b>	$\geq 90$	<b>B-</b>	$\geq 78 - < 89$	<b>D+</b>	$\geq 65 - < 68$
<b>A-</b>	$\geq 88 - < 90$	<b>C+</b>	$\geq 75 - < 78$	<b>D</b>	$\geq 60 - < 65$
<b>B+</b>	$\geq 85 - < 88$	<b>C</b>	$\geq 70 - < 75$	<b>D-</b>	$\geq 58 - < 60$
<b>B</b>	$\geq 80 - < 85$	<b>C-</b>	$\geq 68 - < 70$	<b>E</b>	$< 58$

For information on current UF policies for assigning grade points see:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

**Cell Phone, Laptops and Other Technology**

Cell phones must remain silent and stored during class unless specifically permitted for an activity or assignment. Laptops, tablets, and internet connected devices will be used in this course, however, these devices do come with social responsibility.

**Attendance and Make-Up Work**

Regular attendance is expected. Active participation is necessary for successful completion of the course. If you know you will be absent from class, please contact the instructor at least one week in advance of the date(s) to be missed. If you have an unforeseen emergency, you must provide written documentation to support your absence (e.g. doctor's note). Missed work for excused absences will be accepted with no penalty if completed by an agreed-upon extended deadline. Assignments are expected to be submitted on time. Late work will receive the following penalty:

0.1 hour – 24 hours late = - 25%      24 – 48 hours late = - 50%      >48 hours late not accepted

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

**Course Website:**

All course materials and communications will be hosted on CANVAS. You can access CANVAS at <https://elearning.ufl.edu>. CANVAS will contain announcements, course notes, supplementary materials (e.g., articles, videos, web links), assignments, and a running tally of your grade.

**Course Activities and Assessments:**

This course will involve reading, writing, group work, and outside effort. The study of reproduction requires memorization as well as application. You will need to study lecture and supplemental materials outside of class and put in consistent effort throughout the semester. To get the most out of this course, take advantage of the opportunities offered, get dirty, and ask questions! Learning is not a spectator sport.

**COVID Response:**

The laboratory sessions in this course will involve face-to-face instruction to accomplish the student learning objectives. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are always required to wear approved face coverings during class and within buildings. Following and enforcing these policies and requirements are all our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. Find more information in the university attendance policies, go to: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Lectures will be delivered online using the Zoom platform. Sessions may be audio visually recorded for students who are unable to attend live (University excused absence). Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

### **Academic Honesty**

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.*" You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "*On my honor, I have neither given nor received unauthorized aid in doing this assignment.*"

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams).

Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to

appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

### **Software Use**

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

### Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation  
0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

### Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu](http://www.counseling.ufl.edu)*  
Counseling Services  
Groups and Workshops  
Outreach and Consultation  
Self-Help Library  
Wellness Coaching
- U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)
- *Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.*
- Student Success Initiative, <http://studentsuccess.ufl.edu> .

Student Complaints:

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> .

### Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/> . Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/> . Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

**WEEK DATE**

1	1/12, 1/14 1/14 lab	Course overview, Industry Issues; Mare Anatomy Mare Anatomy HTU
2	1/19, 1/21 1/21 lab	Neuroanatomy and Seasonality; Estrous Cycle Stallion Anatomy and castration ANS 155
3	1/26, 1/28 1/28 lab	Managing the estrous cycle, hormonal & mechanical tools Animal Handling & Safety HTU
4	2/2, 2/4 2/4 lab	Managing the open mare and foaling mare; Sexual Behavior Stallion handling & Teasing HTU
5	2/9, 2/11 2/11 lab	Mare BSE & diagnostics; Breeding options Mare BSE; Caslick's HTU
6	2/16, 2/18 2/18 lab	Artificial Insemination; Mating decisions Palpation and ultrasound for breeding decisions HTU
7	2/23, <b>2/25</b> 2/25 lab	Evaluating Breeding Records; Review; <b>Refresh day</b> <b>Midterm Exam HTU classroom</b>
8	3/2, 3/4 3/4 lab	Semen Collection; Semen Evaluation Semen Collection & Evaluation HTU
9	3/9, 3/11 3/11 lab	Assisted reproductive technologies Artificial Insemination & Embryo Transfer HTU
10	3/16, 3/18 3/18 lab	Embryogenesis, Placentation and Fetal Development, Semen preparation for breeding, shipping or freezing ANS 155
11	3/23, 3/25 3/25 lab	Pregnancy Determination & Managing the pregnant mare Pregnancy Diagnosis in Mares; Manual palpation and ultrasound
12	3/30, 4/1 4/1 lab	Endometritis, Pregnancy loss; Filing reports Stallion BSE CVM Barn C
13	4/6, 4/8 4/8 lab	Parturition; Dystocia; Managing the neonate Postpartum: evaluating placenta, colostrum and passive transfer HTU
14	4/13, 4/15 4/15	Presentations Visit ESC and handle babies (meet at HTU)
15	4/20	Review
Thur.	4/29	<b>7:30 – 9:30 a.m. Final Exam HTU classroom</b>