

**Instructor:**  
**Dr. Saundra TenBroeck**  
 Room 231C ANS Bldg.  
 352-392-2789  
[sht@ufl.edu](mailto:sht@ufl.edu)

**Office Hours**  
**Tuesday, Thursday**  
**10:00 –11:00**  
 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 5<sup>th</sup> Period HTU classroom**

**Lab TBA HTU Classroom and repro barn**

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. The majority of lectures will be delivered via narrated power point on CANVAS. Supplemental material, skeleton lecture outlines, diagrams and images will also be posted on Canvas. Lecture periods will be conducted at the HTU to enhance experiential learning. In addition to lecture periods, students will be required to be at the farm two mornings each week to assist with the breeding management of the mares on site.

### **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**

On-line quizzes (14 @10 pts. each)	30%
Midterm (100 points)	25%
Final exam (100 points)	25%
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>	<b>≥ 90</b>	<b>B-</b>	<b>≥ 78 - &lt;80</b>	<b>D+</b>	<b>≥ 65 - &lt;68</b>
<b>A-</b>	<b>≥ 88 - &lt;90</b>	<b>C+</b>	<b>≥ 75 - &lt;78</b>	<b>D</b>	<b>≥ 60 - &lt;65</b>
<b>B+</b>	<b>≥ 85 - &lt; 88</b>	<b>C</b>	<b>≥ 70 - &lt;75</b>	<b>D-</b>	<b>≥ 58 - &lt;60</b>
<b>B</b>	<b>≥ 80 - &lt;85</b>	<b>C-</b>	<b>≥ 68 - &lt;70</b>	<b>E</b>	<b>&lt; 58</b>

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.

## **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	1/10 - 1/13	Course overview, Industry Issues; Mare Anatomy Animal handling and Safety
2	1/17 - 1/20	Sexual Behavior, Stallion handling Teasing Programs and Recordkeeping
3	1/23 - 1/27	Neuroanatomy and Seasonality; Estrous Cycle Evaluating breeding records for mgmt. decisions
4	1/30 - 2/3	Managing the estrous cycle, hormonal & mechanical tools Stallion Anatomy and castration
5	2/6 - 2/10	Palpation safety and introduction to ultrasound Mare BSE; diagnostics; Caslick's HTU
6	2/13 - 2/17	Breeding options; Artificial Insemination; Palpation and ultrasound for breeding decisions HTU
7	2/20 - 2/24	Managing the open mare and foaling mare; Principles of Timed AI
	<b>2/23</b>	<b>Midterm Exam HTU classroom</b>
8	2/27 - 3/3	Semen Collection & Evaluation Building AV's and stallion collection
9	3/6 -3/10	Assisted reproductive technologies Artificial Insemination & Embryo Transfer Semen preparation for breeding, shipping or freezing
	<b>3/13 - 3/17</b>	<b>Spring Break</b>
10	3/20 - 3/24	Embryogenesis, Placentation and Fetal Development, Endometritis, Pregnancy loss
11	3/29 - 3/31	Pregnancy Determination & Managing the pregnant mare Pregnancy Diagnosis in Mares
12	4/3 – 4/7	Mating decisions, Filing reports; Premature parturition, placentitis Stallion BSE CVM Barn C
13	4/10 - 4/14 4/14	Parturition; Dystocia; Managing the neonate HTU
14	4/18 – 4/21	Postpartum: evaluating placenta, colostrum and passive transfer
15	4/25	Review & course wrap-up
Thur.	5/4	<b>10:00 a.m. – Noon Final Exam HTU classroom</b>