ANSC 433: REPRODUCTION IN FARM ANIMALS Fall Syllabus 2012

| Professor: D.W. Forrest | 133 Kleberg | 845-1543 | d-forrest@tamu.edu | | | | |
|---|-------------|--------------|--------------------|--|--|--|--|
| Office Hours: Tuesday 2:00-4:00 pm, Wednesday 9:00-11:00 am, and by appointment | | | | | | | |
| Instructor: Ashley Keith | 405 | 512-818-5476 | akeith76@tamu.edu | | | | |

Welcome to ANSC 433!

Our goal is to enhance your understanding of animal reproduction and you ability to apply this knowledge in reproductive management. At the start of this course, we expect that you:

- Have a basic understanding of Biology
- Have an interest in farm animals
- Have attained Junior classification

Your successful completion of this course will result in the following learning outcomes:

- Knowledge of the principles of reproduction including anatomy, physiology, endocrinology, gamete production, fertilization, pregnancy, parturition, and reproductive disease.
- An understanding of the practical skills involved in semen collection and evaluation, estrus detection, artificial insemination, estrus synchronization, embryo transfer and genetic manipulation, pregnancy determination, control of parturition and reproductive management.

Required Text: Pathways to Pregnancy and Parturition, Senger, 3rd Ed.

Lab Manual: A Laboratory Manual for Animal Reproduction, 4th Ed., Sorensen

Homepage: http://animalscience.tamu.edu/ansc/433/repro/index.html (Password: ______

*eLearning Vista: http://elearning.tamu.edu/ (Password= your NEO password)

Copies of Lab Notes are available at Copy Corner

Lecture and Laboratory Sessions:

| <u>Section</u> | Lecture - 113 Kleberg | <u> Lab - (</u> | 16A Kleberg |
|----------------|-----------------------|-----------------|-------------|
| 501 | T, R 9:35-10:25 | M | 12:40-2:30 |
| 502 | " | | 3:00-4:50 |
| 503 | ، د | T | 1:00-2:50 |
| 504 | ، د | | 3:00-4:50 |
| 505 | ، د | W | 12:40-2:30 |
| 506 | ، د | R | 1:00-2:50 |
| 507 | " | | 3:00-4:50 |

Lecture:

Consists of three 1-hr exams, a comprehensive final exam and periodic lecture quizzes. You will have 11 lecture guizzes worth 10 points each. Any points that exceed the 100 point allotment for quiz grades will be considered extra credit points. (There is NO make-up for the lecture quiz. If you miss a lecture quiz due a University excused absence, then your lecture quiz total will be based upon the percentage of the remaining lecture quizzes). – If you must miss an exam due to an excused absence (as defined by University Regulations), arrangements **MUST** be made in **ADVANCE** with Dr. Forrest to take the exam. Otherwise, an exam missed due to an excused absence will require permission to take a comprehensive make-up exam on **Tuesday**, **December 6th**.

Lab:

Consists of a lab practical, lab final, written assignment (Snake Oil v Science), and weekly quizzes. You will take 10 lab quizzes that are worth 10 points each. Any points that exceed the 90 point allotment for lab quiz grades will be considered extra credit points. Weekly lab reviews are help Friday at 3 PM in KLCT 016A.

Attendance:

Seating assignments will be used to record your attendance.

GRADING SYSTEM

| LECTURE | Possible Points | Your Points | | | | | | | | | | | | |
|----------------------------|------------------------|--------------------|---------------------|-----|-------|------|---|-----|---|---|---|---|----|----|
| EXAM A | 100 | | | | | | | | | | | | | |
| EXAM B | 100 | | Lecture Quiz Points | | | | | | | | | | | |
| EXAM C | 100 | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Quizzes | 100 | | | | | | | | | | | | | |
| *Lecture Final | 100 | | _ | | | | | | | | | | • | |
| LAB | | | | | | | | | | | | | | |
| Lab Practical | 45 | | | | | | | | | | | | | |
| Lab Final | 45 | | Lab | Qui | z Poi | ints | | | | | | | | |
| Snake Oil Assign. | 20 | | | 1 | 2 | 3 | 4 | . 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Quizzes | 90 | | | | | | | | | | | | | |
| EVED A CREDIT | | | | | | | | | | | | | | |
| EXTRA CREDIT Field Trip | 10 | | | | | | | | | | | | | |

^{*}Final exam will be optional for students with no more than one unexcused absence during the course.

| Grade <u>without</u> the Lecture Final | Grade <u>with</u> the Lecture Final |
|---|---|
| $A \ge 539.5$ points | $A \ge 629.5$ points |
| $539.5 > \mathbf{B} \ge 479.5$ | $629.5 > \mathbf{B} \ge 559.5$ |
| $479.5 > \mathbf{C} \ge 419.5$ | $559.5 > \mathbf{C} \ge 489.5$ |
| 419.5 > D ≥ 359.5 | $489.5 > \mathbf{D} \ge 419.5$ |
| F < 359.5 | F < 419.5 |
| (Grades are calculated out of 600 points) | (Grades are calculated out of 700 points) |

ANSC 433 - LECTURE FALL 2012

| <u>WEEK</u> | DATE | <u>TOPIC</u> | CHAPTER |
|-------------|----------------------|---|----------------|
| 1 | Aug. 28 Aug. 30 | Introduction Male Reproductive System | 1 3 |
| 2 | Sept. 4 Sept. 6 | Male Reproductive System Breeding Soundness Evaluation | 3 10 & 11 |
| 3 | Sept. 11 Sept. 13 | Female Reproductive Tract Female Reproductive Tract | 2 2 |
| 4 | Sept. 18 Sept. 20 | Embryogenesis of Reproductive Systems Regulation of Reproduction | 4 5 |
| 5 | Sept. 25 Sept. 27 | Regulation of Reproduction EXAM A | 5 |
| 6 | Oct. 2 Oct. 4 | Onset of Puberty Estrous Cycle | 6 7 |
| 7 | Oct. 9 Oct. 11 | Follicular Phase of Cycle Ovulation | 8 8 |
| 8 | Oct. 16 Oct. 18 | Luteal Phase of Cycle Control of Estrus & Ovulation | 9 9 |
| 9 | Oct. 23 Oct. 25 | Semen Processing and AI EXAM B | 10 & 12 |
| 10 | Oct. 30 Nov. 1 | Endocrinology of Male & Spermatogenesis Reproductive Behavior | 10 11 |
| 11 | Nov. 6 Nov. 8 | Sperm Transport, Capacitation & Fertilization Early Embryogenesis & Pregnancy Recognition | 12 13 |
| 12 | Nov. 13 Nov. 15 | Embryo Transfer Assisted Reproductive Technologies | 13 13 |
| 13 | Nov. 20 Nov. 22 | Placentation & Gestation THANKSGIVING HOLIDAY! | 14 |
| 14 | Nov. 27 Nov. 29 | Exam C Control of Parturition | 14 |
| 15 | Dec. 4 Dec. 6 | Puerperium No Class – Reading Day | 15 |
| | Dec. 7 | Final Exam – 12:30 – 2:30 p.m. | |

ANSC 433 - LABORATORY FALL 2012

| WEEK | DATE | <u>TOPIC</u> | LOCATION | Lab Manual | | |
|-------------|------------------------|--|----------------------|-------------------|--|--|
| 1 | Aug. 27- Aug. 30 | Intro – Meet with Instructors | KLCT 016A | | | |
| 2 | Sept. $3-6$ | Female Macro & Micro Anatomy | KLCT 016A | 81-87 & 91-100 | | |
| 3 | Sept. 10 – 13 | Semen Collection & Breeding Soundness Evaluation | Beef Center | 47-55 & 59-65 | | |
| 4 | Sept. 17 – 20 | Male Macro & Micro Anatomy (Snake oil vs. Science Title & Paragraph Due) | KLCT 016A | 25-34 & 37-44 | | |
| 5 | Sept. 24 - Sept. 27 | Endocrine Glands & Hormones (Snake Oil vs. Science Rough Draft Due) | KLCT 016A | 13-21 | | |
| 6 | Oct. 1 – 4 | Superovulation & Embryo Transfer (Snake Oil vs. Science Homework Due) | KLCT 016A | | | |
| 7 | Oct. 8 – 11 | Lab Practical Exam | KLCT 016A | | | |
| 8 | Oct. 15 – 18 | Pregnancy Determination- Sow & Mare | Horse Center | | | |
| 9 | Oct. 22 – 25 | Estrous Cycle: Natural Service and Artificial Insemination | Beef Center | 103-109 | | |
| 10 | Oct. 29 – Nov. 1 | Gestation, Parturition, and Lactation | KLCT 016A | 113-122 & 141-145 | | |
| 11 | Nov. 5 – 8 | Pregnancy Determination- Cow & Ewe | Beef & Sheep Centers | 125-138 | | |
| 12 | Nov. 12 – 15 | Assisted Reproductive Techniques | KLCT 016A | | | |
| 13 | Nov. 19 – 22 | Thanksgiving Holiday! No Labs!! | | | | |
| 14 | Nov. 30 | Lab Final Exam (evening exam) | KLCT 113 | | | |
| 15 | Dec. 3 – 6 | No Labs!!!!! | | | | |

Lab Attendance & Grading:

- Students with University Excused Absences will have one week to make up missed lab quizzes.
- A grade of zero will be assigned for any labs that are not completed, and the zero will be used in the calculation of the final lab average.
- A field study trip to an equine breeding farm, an embryo transfer company, and (or) a bull stud will be scheduled

ANSC 433 GRADUATE TEACHING ASSISTANTS FALL 2012

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AMERICANS WITH DISABILITIES ACT (ADA) POLICY STATEMENT:

ADA is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services, in Cain Hall, Room B118 or call 845-1637. For additional information visit http://disability.tamu.edu.

ACADEMIC INTEGRITY STATEMENT:

An Aggie does not lie, cheat, or steal or tolerate those who do. More information can be found at www.tamu.edu/aggiehonor/

Any acts of plagiarism will result in a zero for the assignment and a conference with Dr. Forrest.

Dates and/or Times of specific lecture and laboratory activities are subject to change. You will be notified promptly on the homepage of any necessary changes in schedule.