

AVS 353 Equine Reproduction and Breeding Management
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Contact Information

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Course Objectives:

- To teach students the basic reproductive biology of the mare and stallion.
- To teach students how to apply this knowledge in the field of horse breeding.
- To acquaint students with techniques of assisted equine reproduction (artificial insemination, semen freezing, and embryo transfer).

Learning Outcomes:

At the end of this class students will be able to:

- Describe the basic physiology and reproductive anatomy of the mare and stallion.
- Be able to determine if a mare is proceeding through pregnancy and foaling normally.
- Understand the principles of a breeding soundness evaluation in a stallion.

Grading:

Students will be provided 5 take home quizzes. Students, for an extra credit, may write a paper. The format will be an article for suitable for submission to "Equus" magazine on a subject for lay audiences within the field of equine reproduction. Topics might include "How to manage your mare for breeding" "The Equine Estrous Cycle" or "Pregnancy in the mare" etc.

Grading will be calculated as follows:

On a 100 point scale, A=90-100, B=80-89, C=70-79, D=60-69.

Quiz 1 = 30%

Quiz 2, 3, 4, and 5 = 10% each, 40 % total

(Article = 10%. May be substituted for one of quizzes 2, 3, 4 or 5. If you wish to receive 1 additional credit on your transcript for writing the article register for AVS 368, but all five quizzes would be required for AVS 353 in that case.)

Attendance and class participation =30%

Reference Material:

Class notes will be provided by the instructor on the web.

No text is required for this class.

Video Archive

Videos of lectures may be accessed [here](#)

Course Materials

Review Quizzes

An optional set of simple questions to test your knowledge of [basic horse reproduction](#).

The following 5 quizzes are required. Theoretically they are due the week after we complete the relevant material, but pragmatically they are due by 5 pm on the Friday of finals week.

Quiz 1. Detailed quiz of [anatomy, seasonality, and estrous cycle](#).

Quiz 2. Detailed quiz of [endocrinology of pregnancy](#).

Quiz 3. Detailed quiz of [management of pregnancy and foaling](#).

Quiz 4. Detailed quiz of [stallion anatomy and physiology](#).

Quiz 5. Detailed quiz of [drug use in equine reproduction](#).

Aristotle's View of Horse Reproduction

A translation from The History of Animals Book 6, part 22

[click here](#)

Review of Mammalian Reproduction

A description in simple terms of the basic events of reproduction in mammals

[click here for notes](#)

Reproductive Anatomy of the Mare

A description of the arrangement of the reproductive organs of the mare, including ovaries, uterus, external genitalia, and nervous tissue.

[click here for notes](#)

[Anatomy slides](#)

Reproductive Seasonality of the Mare

A description of reproductive seasonality, behavior, and basic endocrinology of the non cycling mare.

[click here for notes](#)

[Seasonality and estrous cycle slides](#)

Estrous Cycle of the Mare

A description of follicular dynamics and hormonal events of the estrous cycle in the mare.

[click here for notes](#)

[Seasonality and estrous cycle slides](#)

Endocrinology of the Pregnant Mare

Physiology early middle and late gestation.

[click here for notes](#)

[Endocrinology of pregnancy slides- part 1](#)

[Endocrinology of pregnancy slides- part 2](#)

Pregnancy and Foaling

The events surrounding foaling and the foal's adjustment to the world.

[Click here](#) and [here](#) for notes

[Examination of placenta](#)

Check out the video archive for foaling videos [here](#)

The Stallion

Reproductive anatomy, physiology and breeding soundness evaluation of the stallion

[click here for notes](#)

[Stallion slides](#)

Drug Use in Equine Reproduction

The rationale behind various pharmacologic agents used in equine reproduction

[click here for notes](#)

Assisted equine reproduction and breeding management

A description of techniques of assisted equine reproduction (artificial insemination, semen freezing, and embryo transfer) and some basic breeding management guidelines

[click here for notes](#)

Breeding Farm Nutrition

Presentation of Breeding Farm Nutritional

[click here for slides](#)

Course Policies:

Academic Honesty Statement:

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the

University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Please see the University of Maine System's Academic Integrity Policy listed in the Board Policy Manual as Policy 314:

Students Accessibility Services Statement

If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me (Robert Causey 207-922-7475 | rcausey@maine.edu) privately as soon as possible.

Course Schedule Disclaimer (Disruption Clause):

In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Observance of Religious Holidays/Events:

The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site.

Sexual Violence Policy

Sexual Discrimination Reporting

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a faculty or staff member who is deemed a "responsible employee" about sexual discrimination, they are required to report this information to Title IX Student Services or the Office of Equal Opportunity.

Behaviors that can be "sexual discrimination" include sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct, and gender discrimination. Therefore, all of these behaviors must be reported.

Why do teachers have to report sexual discrimination?

The University can better support students in trouble if we know about what is happening. Reporting also helps us to identify patterns that might arise – for example, if more than one person reports having been assaulted or harassed by the same individual.

What will happen to a student if a teacher reports?

An employee from Title IX Student Services or the Office of Equal Opportunity will reach out to you and offer support, resources, and information. You will be invited to meet with the employee to discuss the situation and the various options available to you.

If you have requested confidentiality, the University will weigh your request that no action be

taken against the institution's obligation to provide a safe, nondiscriminatory environment for all students. If the University determines that it can maintain confidentiality, you must understand that the institution's ability to meaningfully investigate the incident and pursue disciplinary action, if warranted, may be limited. There are times when the University may not be able to honor a request for confidentiality because doing so would pose a risk to its ability to provide a safe, nondiscriminatory environment for everyone. If the University determines that it cannot maintain confidentiality, the University will advise you, prior to starting an investigation and, to the extent possible, will share information only with those responsible for handling the institution's response.

The University is committed to the well-being of all students and will take steps to protect all involved from retaliation or harm.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

For confidential resources on campus: **Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000.**

For confidential resources off campus: **Rape Response Services: 1-800-871-7741 or Partners for Peace: 1-800-863-9909.**

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For support services on campus: **Title IX Student Services: 207-581-1406, Office of Community Standards: 207-581-1406, University of Maine Police: 207-581-4040 or 911.**

Visit the Title IX Student Services website at umaine.edu/titleix/ for more information