**Genetic Improvement of Livestock**

**ANS 278**

**Course Syllabus**

**Course Number:** ANS 278

**Credits:** 3; Class meets Tuesday and Thursdays from 10am - 11:50am, and has a 1 hour online component.

**Location:** RCH 209

**Instructor:** Jenny Strooband

**Instructor Office:** WOH 127C

**Office Hours:** Monday 10-11am; Tuesday 12 - 1; Thursday 2-3.

**Phone:** 917-4767 (I’m really lousy at returning calls, email is a better option).

**Email:** jenny.strooband@linnbenton.edu

**Text:** *Understanding Animal Breeding*, Richard M. Bourdon

**Instructor Website:**<http://cf.linnbenton.edu/mathsci/ansci/stroobj>

**Moodle:**[https://elearning.linnbenton.edu](https://elearning.linnbenton.edu/)

**Introduction/Course Objectives**

*As a result of taking this course you will be able to:*

* Express molecular inheritance.
* Explain how management can influence traits expression through inbreeding, outbreeding and line breeding.
* Explain the benefits prepotency and drawbacks inbreeding depression associated with inbreeding.
* Explain the difference of inheritance in monogenic, polygenic, simply inherited and qualitative traits.
* Calculate repeatability and heritability, and apply these concepts to a practical situation.

**Grading**

This course will consist of approximately 16 assignments, 4 quizzes (the low score will be dropped), 2 midterms and a final.

Daily assignments: 16 x 5 points = 80 points

Quizzes: 3 x 25 points = 75 points (This could vary)

Midterms: 2 x 100 points = 200 points

Final Exam: 150 points

**Total 505 points possible**

Grades will be loosely defined as the following:

477 points and above = A

424 - 476 points = B

371 – 423 points = C

318 - 370 points = D

Below 317 = F

\*\*\*In order to make up a missed quiz or exam, you must inform me **that you will miss the quiz or exam ahead of time**. You must make up the quiz or exam the next class period. **It is your responsibility to remind me!** All classroom assignments will be due at the end of class on Friday.\*\*\*

Incomplete Grades: An incomplete (I) may be given if the student completes the majority of the coursework, but for some valid reason misses a portion of the course. Before an “I” is given the student and the instructor must agree on when the work will be completed. If the student does not complete the work they may receive a letter grade for the course.

**Other Information:**

**Tips for Success in ANS 278**

1. Come to every class session.
2. Do the problems at the end of each chapter. I love putting these on tests, and often, the answers are in the back of the book!
3. Do the chapter readings.
4. Participate in all group work problem solving
5. Don’t get behind! We move fast and won’t wait for you to catch up!
6. Come to my office hours with questions. There is no such thing as a bad or a stupid question. I am here to help you.
7. Don’t fear the math, make the math fear you!

**Accommodation Requests**

You should meet with your instructor during the first week of class if:

· You have a documented disability and need accommodations

· Your instructor needs to know medical information about you

· You need special arrangements in the event of an emergency.

If you have not accessed services and think you may need them, please contact Disability Services, 917-4789.

Persons having questions about or requests for special needs and accommodations should contact the Disability Coordinator at Linn-Benton Community College, RCH-105, 6500 Pacific Blvd. SW, Albany, Oregon 97321, Phone (541)-917-4690 or via Oregon Telecommunications Relay TTD at 1-800-735-2900 or 1-800-735-1232. Contact should be made 72 hours or more in advance of the event.

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**A**

 **Very Tentative Schedule for 2019**

## Week Date Topic Reading

1 1/7 Course Intro., Intro. Animal Breeding Chap. 1

2 1/17 Mendelian Genetics; **Quiz I** Chap. 2

3 1/21 Mendelian Genetic/ Pop. Genetics; **Quiz II** Chap. 3

4 1/28 Population Genetics Chap.4

5 2/4 **MT 1**; Genetic Traits, Trait Selection Chap. 5 & 6

6 2/11 Heritability Chap. 9

7 2/18 Repeatability; **Quiz III** Chap. 15 & 16

8 2/25 Mating Systems & Probability Chap. 17 & 18

9 3/4 **MT 2**; Crossbreeding Systems Chap. 19

10 3/11 Biotech., Stem Cells, GMO’s; **Quiz IV** Chap. 20

11 3/18 **Cumulative Final** **Tuesday, March 19th at 9:30 AM**