AGRI 334: Applied Animal Breeding

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AGRICULTURE 334 - APPLIED ANIMAL BREEDING
Spring semester, 2000
Syllabus

Instructor

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Description

Quantitative genetic principles will be applied to livestock production systems. Improvement programs utilizing selection practices and mating systems will be discussed.

Schedule

Class: M, W, F - 1:00 pm, S216

Textbook

Understanding Animal Breeding (2nd ed.)
by Richard M. Bourdon

Objectives

1) Understand the basic genetic principles on which animal breeding is based.
2) Measure an individual animal's genetic merit within the contemporary population
3) Know the methods for genetic improvement of farm animals and be able to evaluate and establish improvement systems.
4) Continue the process of developing a Christian perspective on animal production and a stewardly approach to changing animal performance.

Format

Classes will follow a lecture and discussion format utilizing material from the textbooks and other sources. Appropriate class activities and problem sets will be used to illustrate and emphasize the lecture material.

Evaluation

Final grades will be determined from the final score calculated from all of the work completed by the end of the session. Any work not completed by that time will receive a score of zero. Class performance will be used to determine the final break points between grades.

Exams: During the half-semester session there will be one exam worth 15% of the grade, and a cumulative final exam worth 25% of the grade.
Class assignments: Assignments and problem sets done in class and as assignments will count for 55% of the grade. Specific assignments include:

1. Each student will be expected to read and review two papers dealing with concepts or plans in animal breeding. One is to be a "classic" paper which will deal with the development of animal breeding as a science and the genetic basis for animal breeding. The second will deal with the application of quantitative genetic principles to an improvement program for a specific species. This should describe a specific breeding program for a specific livestock species. Each summary is to be one page in length and include the full reference to the article chosen. These will be worth a total of 10% of the grade.

2. Class assignments and problem sets will be worth 20% of the grade. Problems at the end of each chapter in the textbook will be assigned as the material in the chapter is being covered.

3. There will be at least two quizzes on readings from the textbook and other possible sources. This will account for 10% of the grade.

4. A position paper dealing with recent advances in genetics and animal breeding will also be prepared. This paper will provide a background and description of the procedure or method and a personal critique from a Christian perspective using Biblical guidelines. The paper is to be 3-5 pages in length. This accounts for 15% of the grade.

Participation: The instructor reserves 5% of the grade as an evaluation of the students' effort, attendance, performance and participation in class.

Class Policies

Attendance: Your presence in class, in both body and mind, is expected. You, as well as the rest of the class, will benefit if you are present and come prepared. You are responsible for where you are during class but I will keep track of absences. If you have a valid reason (there are only a few) you need to inform me, beforehand if possible.

Testing times: All exams and quizzes are to be taken at the time they are given. Quizzes cannot be made up if they are missed. Rescheduling an exam will be allowed only under situations of duress. The final exam will only be given during the scheduled time period.

Late assignments: All assignments are due at the time specified. Late assignments will have points deducted at the rate of 10% of the total possible per day.

Questions: If you have any questions or problems during the semester you are welcome and encouraged to visit with me. You may come to my office during the posted office hours or at any time during the day that I am available and it is convenient for you. You may also contact me by phone or email and I will respond as soon as possible.