

Animal Science – Equine Science Syllabus

Course Description:

Animal Science addresses the anatomy, physiology and management of domestic animals. This course will provide an overview of domestic animal nutrition, ruminant and non –ruminant digestion, growth, reproduction, genetics and disease. We will address traditional and current issues in animal science and livestock production. Special emphasis will be placed on those topics related to horses including: the influence of horses on society, history of the horse, breed and age identification, anatomy, colors and markings, confirmation and selection, identification of blemishes and unsoundnesses, diseases and proper horse maintenance including feed, care and first aid requirements.

The animal science/equine science course will address the following topics:

1. Overview of Agriculture industry in Oregon and Clackamas County
2. Anatomical/management terms for cows, sheep/goats, pigs and horses
3. Animal body system overview – skeletal, muscular, respiratory, cardiovascular, nervous and endocrine systems
4. History of the horse , the influence of horses on society and horse breeds
5. Digestive systems of ruminant and non-ruminant animals
6. Nutrition and feed stuffs
7. Balancing rations – nutrient requirements for various equine life stages
8. Colic and enteroliths
9. Animal growth – growth curves
10. Meat and muscle physiology
11. Age determination in horses
12. Reproduction – basic anatomy, physiology and management techniques for all major species
13. Stud and brood mare management considerations
14. Pregnancy and parturition
15. Genetics- emphasis on horse coat color genetics
16. Beef Management considerations including management techniques
17. Horse conformation – blemishes and unsoundnesses
18. Dairy Management considerations including management techniques
19. Horse conformation – selection and judging
20. Pig Management considerations including management techniques
21. Equine first aid – veterinary techniques, diseases and parasites
22. Sheep Management considerations including management techniques
23. Equine hoof care
24. Animal behavior and welfare

Class activities will include: projects, labs, guest speakers, demonstrations, dissections, field trips, videos, etc.

Materials Needed:

Each student is expected to bring the following items to **every** class meeting:

- 1.5 inch or large binder with five manila dividers. See binder handout for further instructions
- working writing utensils including pens and pencils
- **a complete set of colored pencils**

Grading:

Trimester grades are dependent on:

30% Projects and assignments

30% Labs, activities and field trips

40% Tests and quizzes

Letter grades will be determined by calculating of the percentage of points accumulated in each of the weighted categories above.