Syllabus AG201 – Agricultural Science – Animal - Mr. Johnson

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Google Classroom Codes

2nd Hr: b6nzl5h

3rd Hr: ig5eg5d

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Course Description - Students in this course will prepare for careers in Animal Science/Agricultural Business Management. It covers such areas as animal and plant science, mechanics, human relations, and leadership. Leadership activities will be required and FFA activities are emphasized. An approved Supervised Agriculture Experience is required.

Prerequisite - Applied Biological Systems, or agriculture teacher recommendation.

Competencies/Topics

STANDARD 1.0 EXAMINE THE NATURE, SCOPE, AND ROLE OF AGRICULTURE IN THE SOCIETY AND THE ECONOMY (Food Animal)

1.1 Investigate the impact of the agricultural industry on population, food, energy, and environment
1.2 Investigate the economic importance of products obtained from agriculture
1.3 Examine how a stable agricultural sector supports a nation of food security
1.4 Differentiate between agricultural imports and exports
1.6 Investigate how the agriculture sector provides employment opportunities to the labor force

STANDARD 2.0 EXAMINE THE IMPACT OF TRENDS, TECHNOLOGIES, AND POLICIES ON AGRICULTURE

2.1 Identify the major milestones and technological advancements on agriculture and the impact to society
2.2 Describe the effects of genetic modification on agricultural production
2.6 Analyze the impact of biotechnology on production, processing, storage, and preparation of food, fiber, and pharmaceuticals
2.7 Use scientific evidence to investigate controversial topics and make educated decisions
2.9 Describe the effect of agriculture on the web cycle

STANDARD 9.0 ANALYZE ANIMAL SCIENCE PRINCIPLES

9.1 Define common terminology related to animal science and production practices (i.e., gender, age, dehorning, castration, identification, tail docking, etc.)
9.2 Classify animals according to taxonomic classification systems and use (e.g., agricultural, companion)
9.3 Differentiate among large stock, small stock, and companion animals
9.4 Explain basic anatomy and external parts of production animals
9.5 Apply principles of comparative anatomy and physiology to use within animal systems (e.g., circulatory, endocrine, immune, integumentary, musculoskeletal, nervous, reproductive, respiratory, urinary)
9.6 Describe a livestock animal's digestive system (i.e., avian, modified digestion, ruminant, etc.)
9.7 Describe the basic principles of animal welfare (e.g., appropriate environment, facilities, food, healthcare, proper handling, water)

STANDARD 10.0 DEMONSTRATE CONCEPTS OF ANIMAL MANAGEMENT

10.1 Recognize animal behaviors to facilitate safely working with animals
10.2 Investigate the nature and properties of food, fiber, and by-products from animals
10.3 Differentiate between major wholesale/retail meat cuts of beef, pork, lamb, and poultry and compare the value of various meat cuts
10.4 Explore the use of alternative livestock in animal agriculture (i.e., antelope, elk, buffalo, alpacas, ostrich, deer, etc.)
10.5 Analyze the nutritional roles and needs of animals
10.6 Analyze feed rations to meet the nutritional needs of animals
10.7 Develop a plan to treat animal ailments
10.8 Differentiate among animal selection, reproduction, breeding, and genetics
10.9 Demonstrate animal selection based on reproduction, breeding, and genetics
10.10 Explore how animals are evaluated for breeding readiness and soundness
10.11 Create a sustainable reproduction management plan
10.12 Demonstrate proper methods to clean and disinfect animal equipment and facilities
10.13 Demonstrate proper use of animal medications following established withdrawal protocols

STANDARD 11.0 ANALYZE PRINCIPLES OF INTEGRATED PEST MANAGEMENT (IPM) IN PLANT AND ANIMAL SYSTEMS

11.1 Identify pests and signs of pest damage (i.e., parasites, rodents, weeds, insects, etc.)
11.2 Identify pest control methods used to manage pest damage (i.e., cultural, mechanical, biological, chemical, etc.)
11.3 Evaluate economic impact of pests on production

11.4 Discuss biosecurity measures utilized to protect the welfare of animals on a local, state, national, and global level
11.5 Read and interpret pesticide labels
11.6 Investigate safe pesticide application practices
11.7 Apply pesticides safely according to good manufacturing practices (GMPs)

STANDARD 12.0 EXAMINE FOOD SAFETY AND PROCESSING PRACTICES

12.1 Investigate government agencies that impact agriculture and food production
12.2 Analyze food product labels
12.3 Evaluate food processing best practices (i.e., HACCP, quality assurance, food safety standards, etc.)
12.4 Develop a plan to prevent foodborne illness in agricultural products

STANDARD 15.0 DEMONSTRATE AGRIBUSINESS MANAGEMENT, FINANCE, AND MARKETING SKILLS

15.4 Use management software and information technology [i.e., spreadsheets, databases, presentation software, record-keeping software, electronic record book, agriculture experience tracker (AET), etc.]

Grading - Students will earn points by written assignments, quizzes, tests, and hands on activities in the laboratory. **Approximate** point values per semester are as follows: **School policies for late assignments will be implemented.**

Written assignments, article summaries, speeches, quizzes, tests	1000 points
Laboratory work	200 points
Final Exam / Required Forms completed	200 points
Group Projects	1500 points
Leadership Points	100 points
Supervised Agricultural Experience	500 points
Total points possible	3500 points

Major Projects - Some of the major projects in the class include keeping personal records, livestock auction, animal husbandry and public speaking. These include speeches, research project, group projects and animal care responsibilities. Each student will be assigned a week a couple times throughout the year in which he/she will be responsible for feeding and caring for the department animals at the animal lab. This will include before and after school and on a weekend morning and evening.

Students will also be required to conduct a Supervised Agricultural Experience. This is a work/research/ or entrepreneurial project in agriculture. They will keep records and be graded on completion of the project each semester.

Students will also be involved, working outdoors with livestock, including physical labor.

Note: **Required Class Activity – Sept. 11, Saturday 6:30 AM – 12:00 PM – GHS FFA Lamb and Goat Auction. It will be held on the GHS Campus. 1000 point activity**.

Course Procedures - Performance objectives for this course can only be completed by student participation in planned activities. Student grades will be based upon the completion of assignments given both in class and in the laboratory.

Students are expected to dress appropriately for activities planned and work conducted. Safety procedures will be emphasized at all times.

Students will not receive credit for partial work.

Late work: Assignment point value will be reduced 10% a day it is not turned in to the teacher. In order for a student to receive the opportunity for an extra credit assignment, the original assignment must be completed and turned in to the teacher in person.

Make up: for missed land lab days or pop quizzes:

1. Find an Animal Agriculture current event article 8 paragraphs or longer
2. Read the article
3. in the student notebook, cite the source and info, date, and assignment you are replacing
4. hand write a summary on article
5. 1 paragraph What did you learn?
6. 1 paragraph What are your thoughts? i.e: how will this effect agriculture, the farmer, the consumer, the future

Other Information - This course may be taken for ½ university lab science credit if Applied Biological Systems was completed successfully. This course will serve as an elective, MST, or Gilbert High School graduation science credit.

Text Book: Gillespie, Flanders, Delmar (2010) -Modern Livestock and Production – 8th Ed.