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BIOMED 2230

**Animal Sanitation and Disease Prevention (3 cr)**

**COURSE PROFILE**

Course Description The course is intended to be an introduction to concepts of disease and health maintenance in domestic livestock and poultry. Topics covered include sanitation, housing, nutrition, general husbandry procedures and disease prevention and detection. This course is not intended to teach how to diagnose and treat animal diseases. However, it should help you appreciate the services that a veterinarian can provide, and should also help you communicate and partner more effectively with a veterinarian for the benefit of animal health.

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Major Objectives To enable the student at the end of the course to:

* + - * + Learn a basic vocabulary of animal health terms.
        + To become familiar with the normal animal and the structure and function of the various body systems
        + To learn how the body defends itself against disease (immunology) and how we can use this information to help protect animals against disease
        + To become familiar with a few of the more common parasites of animals
        + To learn about the principles of controlling **pathogenic** (disease-causing) organisms in the environment through disinfection and sterilization
        + To gain an understanding of how management techniques can maximize health in domestic animals.
        + To learn how stress influences animal health
        + To become familiar with common diseases affecting poultry, horses, sheep, goats, cattle and swine

Prerequisites Freshman standing

Delivery 100% online

Organization Course materials are located under the left-hand tab in the course Blackboard site under “Units”. “Sessions” are found under “Units” and “Modules” under “Sessions. Further directions are provided in Blackboard.

Recommended Materials *Animal Health, 3rd Edition*

Jackson N, Greer WJ, Baker JK

ISBN: 0-8134-3169-7

**EVALUATION OF**

**STUDENT**

**PERFORMANCE**

Satisfactory

Performance Three proctored exams will provide a total of 300 points. The final exam will be worth 200 points. The remaining points will be based on weekly assignments (10 - 25 points/week). Students with less than 71% at mid-term will receive a warning.

Exams and Quizzes Exams are available only under the supervision of a proctor. Fifty minutes will be allowed for exams, except for the final, which has a two hour time allowance.

If you take more time than the exam allows, your score will be deducted the points of one question each minute in overtime.

You may take an exam only once. You must complete the exam once you start it. You may NOT come back to the exam later. If you are disconnected during an exam, contact the instructor immediately and then send an e-mail to [blackboard@missouri.edu](mailto:blackboard@missouri.edu) with your name, username, course name, title of the exam, and a description of the problem. Click “Submit” after you have reviewed your answers to have the exam graded.

Scoring of Assignments In addition to exams, students will be scored on weekly assignments, which may include, but are not limited to: reading and evaluation of assigned articles, answering assigned questions, labeling diagrams. Assignments will be graded within one week after due date.

Grading The grading scale will be A to F, including some pluses and minuses but no A+, C+, C-, D+, or D-. Grades will be based on the following scale:

96-100% = A

91-95% = A-

88-90% = B+

84-87% = B

81-83% = B-

71-80% = C

61-70% = D

**BIOMED 2230 Course Schedule**

|  |  |  |
| --- | --- | --- |
| Units | Sessions/Weeks | Modules |
| **1**: The Nature of Disease, Nutrition, and Sanitation | 1 | Introduction/Syllabus  1: The Nature of Disease |
|  |  | 2: Results of infection; factors of disease prevention |
|  |  | 3: Macronutrients |
|  | 2 | 4: Micronutrients |
|  |  | 5: Feed and water Sanitation |
|  |  | 6: Grooming and waste disposal |
| 2:Disinfection, Quarantine and Immunization | 3 | 7: Disinfection and Characteristics of Disinfectants |
|  |  | 8: Types of Disinfectants |
|  |  | 9: Quarantine |
|  | 4 | 10: General principles of vaccination and immunity |
|  |  | 11: Biologic Agents |
|  |  | 12: Vaccinating |
| Unit 3: Housing, Husbandry and Heredity | 5 | 13: Buildings: location and desirable features |
|  |  | 14: Review of genetics and terms |
|  |  | 15: Examples of congenital abnormalities |
| *Note: it is recommended that you*  *Complete the assignments early in the week, so that you will have time to review for the exam.* | 6 | 16: Methods of restraint and basic husbandry  17: Identification and care of sick or stressed animals |
|  |  | 18: Review for test. Go back over the questions and assignments, powerpoints and reading assignments to prepare for the test. |
| Unit 4: The Digestive and Genitourinary Systems | 7 | 19: Structure and function of the digestive system |
|  |  | 20: Disturbances of the digestive system, part I |
|  |  | 21: Disturbances of the digestive system, part II |
|  | 8 | 22: Structure and functions of the reproductive and urinary systems |
|  |  | 23: Problems of breeding animals; disturbances of the genitourinary system part I |
|  |  | 24: Disturbances of the genitourinary system part II |
| Unit 5: The Respiratory, Circulatory and Nervous Systems | 9 | 25: Structure, function and diseases of the respiratory system |
|  |  | 26: Structure & function of the circulatory system |
|  |  | 27: Disturbances of the circulatory system |
| *Note: it is recommended that you*  *Complete the assignments early in the week, so that you will have time to review for the exam.* | 10 | 28: Structure and function of the nervous system  29: Disturbances of the nervous system |
|  |  | 30: Review for your test. Use powerpoints, notes, previous assignments and book to prepare. |
| Unit 6: Generalized, Metabolic and Deficiency Diseases | 11 | 31: Generalized diseases Part I |
|  |  | 32: Generalized diseases Part II |
|  |  | 33: Johne's Disease |
|  | 12 | 34: Metabolic and Deficiency Diseases Part I |
|  |  | 35: Metabolic and Deficiency Diseases Part II |
|  |  | 36: Metabolic and Deficiency Diseases Part III |
| Unit 7: Diseases of the Skin and Extremities and Plant and Chemical Poisonings | 13 | 37: Diseases of the skin and extremities Part I |
|  |  | 38: Diseases of the skin and extremities Part II |
|  |  | 39: Diseases of the skin and extremities part III |
| *Note: it is recommended that you*  *Complete the assignments early in the week, so that you will have time to review for the exam.* | 14 | 40: Poisonous Plants  41: Poisonous Chemicals |
|  |  | 42: Test preparation. Use previous assignments, powerpoints and notes to prepare. |
| Unit 8: Parasitology and Final Exam | 15 | 43: Parasitology |
|  | 16 | Review and Final Exam. Use the study guide provided to help you prepare. This exam is comprehensive. |