BIOMED 4500

**Equine Critical Care and Nursing**

**COURSE PROFILE**

**Course Description**

This course provides advanced information for veterinary technicians, veterinary assistants and pre-veterinary students wishing to enhance and focus their understanding of equine critical care and nursing concepts.

**Instructor**

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**Major Objectives**

After completion of the course, a student will:

1. Demonstrate an enhanced understanding of the nursing care provided in equine veterinary medicine through an increased knowledge of anatomy, physiology, pharmacology, and physical examination concepts

2. Understand common technical procedures performed in equine veterinary medicine

3. Recognize common equine emergencies and clinical syndromes and explain how to provide their associated nursing care

4. Understand and analyze equine biosecurity issues facing farms and or veterinary clinics

**Prerequisites**

An AAS or equivalent degree in veterinary technology from an American Veterinary Medical Association-accredited program or completion of a minimum of 9 credits in biology, physiology, or core veterinary technology courses is required.

**Delivery**

This course is delivered completely online. Students are not required to attend class at specific times; however, it is important that they follow the attendance/participation guidelines and meet due dates and deadlines for readings, assignments, discussions, quizzes, and exams. Communications will be through the discussion board, announcements, and e-mails. Course delivery strategies may include: reading from required textbook(s), reading resources linked to the internet, brief audio or audio/video lectures, assigned projects, use of the discussion board, use of the internet, and e-mails.

**Organization**

Course materials are located under the left-hand tab in the course Blackboard site under “Units”. “Sessions” are found under “Units”. There are 8 Units in this course. Further directions are provided in Blackboard.

**Required Text**

Reeder D, Miller S, Wilfong D, Leitch M, Zimmel D. AAEVT’s Equine Manual for Veterinary Technicians Wiley-Blackwell. 2009.

**EVALUATION OF STUDENT PERFORMANCE**

**Satisfactory Performance**

There will be 1000 possible points. A portion of the possible points will be achieved each week. More than 600 points are required for a passing grade. Students with less than 61% at mid-term will receive a warning. Grades will be available in Blackboard. To insure confidentiality, they will not be sent by e-mail.

**Exams and Quizzes**

The final exam is available only under the supervision of a proctor. Contact Mizzou Online to locate a local proctor for your exams. Seventy minutes will be allowed for the final exam.

Quizzes and unit exams are not proctored, but you are expected to complete the quizzes by yourself. Each quiz or unit exam is timed so that you will not have time to rely on reference materials, i.e. they are not open-book quizzes and exams. If you take more time than the quiz or exam allows, your score will be deducted the points of one question for each minute in overtime.

You may take a quiz or exam only once. You must complete the exam or quiz once you start it. You may NOT come back to the quiz later. If you are disconnected during an exam, contact the instructor immediately and then send an e-mail to blackboard@missouri.edu with your name, username, course name, title of the quiz or exam, and a description of the problem. To insure your answers are logged, click “Save”at the bottom of the page every 2 to 3 questions. Click“Submit” after you have reviewed your answers to have the quiz or exam graded.

**Course participation**

In addition to exams and quizzes, students will be scored on course participation by submitting blogs and answering wiki questions, and discussion board participation. Blogs and wiki questions will be scored using the grading rubric supplied on Blackboard.

**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

60% or less = F

Note: A Certificate in Biomedical Technology requires at least a “C” grade in this course, plus a total of 15 credit hour BIOMED courses with an average GPA in all BIOMED courses of 3.0.

**TENTATIVE COURSE SCHEDULE**

**Unit 1**

**Equine Basic Care and Wellness**

Session 1: Basic Care

General Horse Management

 Basic Nutrition

 Feeding Concepts

Session 2: Wellness

Vaccinations

 Deworming

 Wellness Program Components

**Unit 2**

**Equine Anatomy and Physiology**

Session 3: Anatomy and Physiology I

Hematology, Immunology, Cardiology, Respiratory

Gastrointestinal, Nervous

 Urinary, Endocrine, Skin, Eye, Ear

Session 4: Anatomy and Physiology II

Musculoskeletal I

 Musculoskeletal II

 **Clinical Project I- Musculoskeletal**

**Unit 3**

**Equine Anesthesia and Pharmacology**

Session 5: Equine Anesthesia

Preparation, Background and Induction

 Positioning, Maintenance and Monitoring

 Recovery, Specific Situations

Session 6: Equine Pharmacology

Pharmacology Basics

 Specific Drug Classes

 **EXAM #1 Units 1-3**

**Unit 4**

**Equine Surgical Assistance and Emergency Care**

Session 7: Common Equine Emergencies

Colic, Exhausted Horse, Rhabdomyolysis, Choke

 Lacerations, Bandaging, Non- Weight Bearing

 Opthalmologic, Emergency Review

Session 8: Equine Surgical Assistance

Surgical Assistance Concepts

 Surgical Wounds

Common Procedures

**Unit 5**

**Equine Nursing and Foal Care**

Session 9: Equine Nursing Care

 Nursing Skills

Session 10: Equine Foal Care

Basic and Advanced Foal Care

 CPR, Common Foal Disease

**Unit 6**

**Equine Technical and Diagnostic Procedures**

Session 11: Equine Technical Procedures

Gastrointestinal and Respiratory

 Transfusions, Urinary Catheter, Arthrocentesis

Session 12: Equine Diagnostics

Basic Diagnostics

 Advanced Diagnostics

 **EXAM #2 Units 4-6**

**Unit 7**

 **Equine Office Procedures and Hospital Biosecurity**

Session 13: Equine Office Procedures and Biosecurity

Equine Office Procedures

 Biosecurity

Session 14: Equine Biosecurity

Biosecurity

 **Clinical Project II- Biosecurity**

**Unit 8**

 **Equine Continuing Education and Course Review/Final**

Session 15: Equine Continuing Education

Continuing Education

Session 16: Equine Course Review and Final Exam

Course Review

 **PROCTORED FINAL EXAM Units 1-7**

**Estimated Time Requirements for Preparation and Participation**

9 hours per Session or 18 hours per Unit or 144 hours for the course.