COURSE SYLLABUS

Equine Practice II
CVM 7031
Credit Hours 2

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Course Instructors: Clinical Preceptors are:

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Dr. Don Shields, Winners Circle Ranch, Sawpit Ln, Bradbury, CA,

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Dr. Marc Laxineta, Equine Health Management, 25175 Jefferson Ave, Murrieta, CA 92564, 951-698-2299

Dr. Rick Beck, Winners Circle Equine Clinic, 39185 Diamond Valley Rd., Hemet, CA 92543, 951-929-4533

Dr. Sylvia Greenman, Sylvia Greenman, Inc. - Track Veterinarian, 239 Oaks Ave, Monrovia, CA 91016, 626-256-4788

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See Blackboard for site specific information

Course Time and Location:

The two week, Monday through Friday, course is conducted at scheduled equine practices. (addresses and contact information are posted on Blackboard). Generally, students will be available to ride with the practitioners during their normally scheduled appointments. Self directed study will constitute 50% of the two week course. During the student centered learning time the students are to work together in their groups to share their personal learning experiences in order to optimize the educational experience. The student centered learning time locations are predetermined. Additional independent study by the individuals is expected.

Rounds will be held weekly by video conference on *date/time TBA* . Webcams will be available at each practice if students do not have their own. (Formal case presentations will not be expected, rather, students should be prepared to discuss some of the cases from their case logs).

Course Description:

This third year course provides supervised clinical education in ambulatory based equine practice. The students will have the opportunity to work alongside high quality community based equine clinicians. The students are active participants in the diagnostic and therapeutic management of the patient and will continue to develop problem orientated decision making skills directed toward the care of the patient. The students will assume progressive responsibility in the management of primary care patients, preventive care programs, emergencies that occur in practice as well as gaining exposure to the economics of equine practice.

Learning Objectives:

At the end of the course, the student should be able to:

- Complete an accurate history and physical examination on equine patients
- Handle and restrain animals in a safe and humane manner
- Demonstrate patient assessment skills
- Establish a problem list and identify the main systems affected
- Recommend a thoughtful and accurate diagnostic and therapeutic plan for both typical and atypical clinical problems seen during the rotation
- Have knowledge of and manage common diseases seen in the practice setting
- Develop diagnostic protocols for common complaints and clinical presentations seen in horses
- Evaluate clinical findings and determine the next steps in clinical case management
- Administer medication appropriately using the correct technique; IV, IM, SQ, PO
- Discuss the importance of vaccination protocols, immunologic principles and public health implications; WNV, Eastern/Western Encephalitis, Rabies, Tetanus, Influenza, EHV, *Strep equi*, Botulism
- Discuss a parasite control program and identify parasite ova/larvae on microscopic examination. Include common equine gastrointestinal, vascular, urogenital, nervous system, ocular, skin and hair parasites
- Be familiar with emergency assessment, emergency interventions, and the selection of patients which are to be referred to a referral practice and the emergency treatment needed for transportation.

The practice case load, individual patient needs and the short time of exposure may not afford each student the opportunity to perform these tasks. However, this does not dismiss the student from the responsibility of developing these skills.

Course Policies and Procedures:

Attendance and participation in the course is required in order to optimize the educational benefit for all students. Students are expected to proactively participate in the regularly scheduled activities. Failure to do so will require making up missed time, or possibly repeating the course. Collaborative work is required between the students in order to optimize the learning experience and for each student to gain exposure to the multitude of cases and learning issues. In the event of an emergency situation that interrupts the course or limits participation the student should contact the course director and the clinic director as soon as possible (see contact information for course director). Information conveyed should include the nature of the emergency, the length of time of the absence if known and the contact information while away. Absence request form as well as policies and procedures for excused absences are detailed in the Clinical Courses and Rotation Handbook.

Professional behavior is conducive to a learning environment and is expected of all course participants. Professional behavior includes but is not limited to tolerance of others' beliefs and opinions, arriving on time, being prepared, and polite and courteous behavior.

Honor code- all behavior and conduct is expected to be in compliance with the University and College requirements and recommendations.

Students with special needs - Students seeking accommodations based on disabilities should contact the Center for Disability Issues & the Health Professions (CDIHP) office (909 469-5380) to coordinate reasonable accommodations for students with documented disabilities *prior to the beginning of the course*. Retroactive disabilities related accommodations will not be granted.

Communication with the course director should be conducted not only via email but also through the telephone numbers provided in order to receive a timely response.

Assessment:

All email contact is to be through the Western University system.

The accuracy and submission of electronic information is the student's responsibility

Case Log:
The purpose of the case log is to document cases seen by each student during the course. The case log is to be the work of the individual student, not a group effort. The case log will be a record of all the clinical cases seen by the student. The required criteria for the log book will be available on Blackboard. **The case log should be completed on-line no later than Sunday each week of the 2-week course.**

Clinical Skills List:
At the same time you enter case information in the case log database, you should complete the "Clinical Skills List" section. There you can indicate which skills you were able to perform on this case and at what level. There is no other requirement to track these skills. I.e., you are not required to email the list and you are not required to find anyone to sign off on the skills that you log here.

SOAPs:
Two SOAP write-ups from your case log are required, one each week. Do not use the online entry page for this. Instead, submit as an attachment by email to the course director. They are considered late if received after the Sunday at the end of each week. Submitting the SOAP after 7:00 PM or so on that Sunday may lead to a delay in comments and feedback from course faculty.

There will be an emphasis by the course director to provide prompt feedback on the first SOAP submitted in case you are found to be on the wrong track. If so, you will be given a chance to resubmit the first SOAP and/or reflect any suggestions in your second submission.

The purpose of the "SOAP" assignment for this course differs slightly from that in other 3rd year courses. The familiar Subjective, Objective, Assessment, Plan format will be followed, but the entire POVMR record keeping system will not be emphasized for the purpose of this assignment.

If it suits your purpose you can begin with a problem list and indicate which problem you are choosing to discuss, or

you may simply state the problem and write it up using the SOAP format.

Since you have but two opportunities to do this in the two week span of the course, and many of you have had minimal past exposure to equine practice, you should do your best to select a topic that will encourage you to investigate an important issue about equine medicine and surgery that is a high priority for you to learn and that will aid you in preparing for the assessments that are administered at the end of the block (written final exam, and practical clinical exam.)

There is no recommended length for each write-up, but be assured that if you choose to take the time to make a major piece of work out of it, it will be carefully read, evaluated, and commented on in a timely fashion. However, it is also possible to get maximum credit for your SOAP write-up in a page-and-a-half if you pay attention to the following:

1) Describe the case carefully, fully, and accurately.

2) Weight, age, color, breed, and gender are all important. It can be helpful to record where some of the information came from, such as weight and age. Are they estimates by you? Was the horse weighed or measured with a tape? Did you estimate the age by dental examination? A typical description might look like this: "1,000 pound, 6 year old, bay Arabian mare," or "1150 pound, 15 year old (estimated), chestnut Thoroughbred gelding." When you are estimating weight, don't list a range such as 900-1100 pounds. Pick the estimate at the middle of the range because you have to commit to a number when you decide to calculate doses for the horse. Color is important for identification purposes and because it can be related to heritable conditions or susceptibilities.

3) Include enough detail so that a veterinarian reading your words can picture what you saw and can appreciate your thinking about the matter.

4) Assess the situation including relevant differentials.

5) Outline the actual or recommended treatment plan, and compare it to your vision of the gold standard plan for this patient.

6) For any pharmaceutical, always indicate the amount of active ingredient that was given or is recommended. You can convey the dose as quantity/patient weight such as mg/kg, or total amount administered, or volume if you also list the concentration, such as 1cc of 2% mepivacaine hydrochloride.

7) Footnote or otherwise indicate exactly where referenced facts were found. There is no required number of resources to consult other than it should be greater than zero!

If for some reason you are unable to determine information as outlined above, so-indicate in your write-up.

Examination:
The summative exam administered at the end of the block will cover the common problems that may arise in the equine ambulatory setting.

Each student will need to bring a functioning computer. There will be at least one spare available in case of laptop difficulty. The exam format will be essay/short answer. The exam will be administered on Blackboard; Ethernet connections will be provided.

The exam will include questions about musculoskeletal and lameness issues, dental matters, and considerations particular to equine ambulatory practice. What factors need to be considered to adequately communicate with horse owners about wellness care? When the phone rings, what are some likely scenarios and what kinds of information do you need to have at the ready in order to field such calls?

Areas which might be covered include but are not limited to:

Lameness. The horse's primary distinction is its use as an athlete, so an understanding of the anatomy of locomotion is essential. Know the common disorders and how pain or discomfort (i.e., lameness) can be detected. Commonly encountered issues include trauma, navicular syndrome/heel pain, and laminitis.

Dentition and dentistry are unique in the horse, so this is an important area to understand. For example, the Triadan system is simple, efficient and universal, but many practitioners may still refer to the first cheek tooth (’06) involved in mastication as the second premolar, whether deciduous or permanent. If large canine teeth (‘04) are evident the horse is most likely over six years old, and most definitely male. Eruption schedules are readily available and provide information useful to determine whether a horse’s dentition is age-appropriate, as well as a way to estimate the age of a horse. Routine care and common problems for hypsodontic teeth are very different

from those of brachydontic species.

What is fed to horses and where the energy comes from is important. Know that the primary source of energy in equine diets is carbohydrate. Know the difference between structural and non-structural carbohydrate. Know the pathophysiologies of and relationships to nutrition of Equine Metabolic Syndrome, Insulin Resistance, Pituitary Pars Intermedia Dysfunction, and Developmental Orthopaedic Disease).

A day doesn't go by in equine practice without the utterance of the word colic. Be able to answer questions about equine colic. The same goes for skin conditions.

Know the issues surrounding prepurchase examinations.

Know something about the buzzwords of the day such as IRAP, stem cell (mesenchymal stem cell therapy for equine tendinopathy), PRP (platelet-rich plasma), ECSW (extracorporeal shock wave therapy), MRI, Genetics Testing, or infrared imaging (thermography). This is not the time for in depth consideration of any of these, but you don't want to be completely in the dark when someone tells you they heard about IRAP and wondered if it might help their horse.

Which sedatives/tranquilizers do you most likely have with you for use in the horse and when and how will you use them? Rationale for use is important. The same goes for analgesics, anti-inflammatories, and antibiotics.

At the end of the rotation the following factors will be used to evaluate students;

Summative examination	60%
Evaluation by the clinical Preceptor	20%
SOAP	20%
Adequate documentation of the Case log	Threshold
Completion of the skills list	Threshold

Clinical competency examination threshold event

Clinical competency will be assessed in this threshold event. The option exists that course directors for each of the two 3rd year equine courses will choose to administer the exam jointly. A score of 70 or greater will satisfy the requirement for both 3rd year equine courses (Equine Practice I and Equine Practice II.) A score of <70 will result in an incomplete grade until such time that a passing score is achieved by retaking the exam. Further description of the joint exam can be found in the syllabus for Equine Practice I.

Grading scale

A (90≥) An exceptional student with work at a professional advanced level with evidence of understanding of all course material
B (80 ≥) A competent student who has achieved a high standard of understanding in some topics, although in some areas and issues have moderate understanding
C (70 ≥) A moderate student who has achieved a moderate level of understanding in the majority of the major learning areas
D (60 ≥) A poor student who has failed to demonstrate an understanding of the learning areas

A cumulative score of <70% will require remediation

Course Schedule:

Each ambulatory site has a different daily schedule and times. Please refer to Blackboard for the specific information pertaining to your assigned clinical site.

Appendix I:

The following is a *partial* list of common conditions and other areas of interest you may wish to consider for future study, or as an aid in this specific course. This list is by no means intended to be complete, nor is it intended to be a definitive list of learning issues.

General principles and management issues
- Anesthesia, both standing and general in a field situation
- Endocrine disorders – PPID, EMS, IR, etc
- Fluid therapy

- Neuroanatomic diagnosis
- Lameness diagnosis
- Parasite control
- Theriogenology

Disorders commonly encountered
- Abdominal pain
- Acute blood loss
- Botulism
- Dysphagia
- Epistaxis
- Lameness
- Neonatal Foal Abnormalities (normal neonatal management concerns)
- Neurological gait abnormalities
- Ocular disease
- Performance Problems
- Pyrexia
- Respiratory Infection (upper/lower, bacterial/viral/fungal)
- Trauma

Gastointestinal disease
- Acute colitis / diarrhea
- Chronic diarrhea/granulomatous enteritis
- Colic
- Enteroliths
- Gastrointestinal ulceration
- Hepatic disease / biliary disorders
- Hernias
- Sand

Immune disorders
- Combined Immunodeficiency
- Failure of Passive transfer
- Neonatal Isoerythrolysis
- Parasitism
- Purpura hemorrhagica

Infectious diseases
- Equine herpes
- Influenza
- Rabies
- *Strep equi*
- Tetanus
- West Nile Virus

Musculoskeletal system
- Developmental orthopedic disease
- Hoof Abscess vs sole bruise
- Laminitis
- Osteoarthritis
- Traumatic/athletic injury

Neoplasia
- Lymphosarcoma (Cutaneous, abdominal)
- Melanoma
- Sarcoid
- Squamous cell carcinoma

Nervous System
- Cervical vertebral malformation
- Equine herpes myelitis
- Protozoal myeloencephalitis
- Rabies

Ocular system
- Corneal ulcer
- Uveitis (recurrent or otherwise)

Urinary system
- Patent urachus
- Ruptured bladder