

Course Number/Title: VT 260 Large Animal
Technology

Year: Fall 2012

Department: Veterinary Technology

Credit Hours: Laboratory 1

Required Text: None

Days/Time:

Section 01: T: 9:30 am-11:30 am

Section 02: T: 9:30 am – 11:30 am

*Meets every other Tuesday

Instructor: Dr. Jennifer Martin

Room #: AGR 603 and CCC
Farm

Office Hours: TBA

Phone #: (785) 460-5466

Course Placement: Sophomore

Prerequisite: VT 130 & VT 131
Veterinary Clinical Procedures &
Lab

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Rationale

Students will acquire job skill competencies for graduate veterinary technicians in large animal technology.

Course Description

Prerequisite: VT 130 and VT 131 (Veterinary Clinical Procedures and Lab) Students assist in treatment and surgery of large animals

Topics covered:

- Large animal field anesthesia
- Large animal surgical assistance
- Breeding soundness exam

Course Outline*

***Lab sessions may vary depending on availability of animals and cases.**

- 1) Calfhood Brucellosis Vaccination Lab
- 2) Cattle Lab
 - a) Physical Examinations (TPR, rumen motility, etc)
 - b) Restraint
 - i) Chute
 - ii) Tail

- iii) Head
 - (1) Halter
 - (2) Nose Tongs
 - c) Procedures
 - i) Orogastric and/or Nasogastric Intubation – Stomach Pump usage
 - ii) Adm oral medication via Balling Gun
 - iii) Adm oral medication via Dose Syringe
 - iv) Injections
 - (1) IM
 - (2) SQ
 - (3) IV
 - v) Draw Blood
 - (1) Jugular Vein
 - (2) Tail Vein
 - vi) Brucellosis Test Form
 - vii) Tuberculosis Test (Tuberculosis Test Form)
 - viii) Certificate of Veterinary Inspection
 - ix) Surgical Preparation
 - x) Proper application of Calf Jack
 - xi) Discussion on Dehorning and Castration
 - xii) Palpation
- 3) Horse Lab
 - a) Physical Examinations (TPR, gut motility, digital pulses, etc)
 - b) Restraint
 - i) Stocks
 - ii) Halter
 - iii) Twitch (Humane and Chain Twitch)
 - c) Discussion and/or observation of Nasogastric Intubation
 - d) Adm oral medication via Dose Syringe
 - e) Injections
 - i) IM
 - ii) SQ
 - iii) IV
 - f) Draw Blood
 - i) Jugular Vein
 - ii) Coggins (EIA) Test Form
 - g) Certificate of Veterinary Inspection
 - h) Surgical Preparation
 - i) Tail Wrap
 - j) Discussion on Castration
 - k) Discussion on Palpation
- 4) Horse Castration Lab (if available)
 - a) Colt Castration:
 - i) Surgery
 - ii) Recovery and post-surgical care
- 5) Bull Fertility Test:
 - a) Three Components:
 - i) Physical exam
 - (1) Overall Condition
 - (2) Feet and legs
 - (3) Prepuce, penis and testes
 - (4) Rectal exam of Seminal Vesicles

- ii) Scrotal Circumference measurement
 - iii) Semen Evaluation – Microscopic
 - iv) Society for Theriogenology Forms
- 6) Cryptorchid Castration Lab (if available)
- 7) Swine - Handling and Care (if available)
 - a) Restraint
 - i) Manual – hold or Crowding panel, leg grab
 - ii) V-trough
 - iii) Mechanical – Snout restraint – snare or cord
 - iv) Injectable
 - b) Pig puller
 - c) Injections – IM or Subcutaneous
 - d) Blood sample – Anterior Vena Cava
 - e) Ear notch
 - f) Castrate
 - g) Tails and teeth
 - h) Worming – Oral pastes, feed or injectable
- 8) Horse Dental Lab
- 9) Sheep Lab (if available)
- 10) Goat Lab (if available)

Course Learning Objectives Assessed

Students will perform animal nursing and clinical diagnostic procedures, including but not limited to wound management, blood pressure measurement, and electrocardiography, to aid in the diagnosis, prognosis and implementation of prescribed treatments; will document initial and ongoing evaluations of physical, behavioral, nutritional and environmental status of animals to provide for optimal animal/client safety and health; and will educate clients and the public about animal care, including but not limited to post-operative care, preventative care, and zoonosis, to promote and maintain the health of animals and the safety of clients and the public.

Given the characteristics of the patient, the veterinary technician will safely and efficiently obtain subjective and objective patient data that will allow accurate evaluation of the patient's physical status with minimum stress and maximum safety.

Given the directions of the veterinarian and the characteristics of the patient, the veterinary technician will carry out appropriate therapeutic techniques in order to achieve maximum health benefits for the patient.

Course Competencies

The learning outcomes and competencies detailed in this syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course.

Students will be required to demonstrate proficiency in job competencies utilizing the following competency rating scale:

- 3: Excellent; able to work independently
- 2: Satisfactory; entry level skills
- 1: Unsatisfactory
- 0: Not applicable

Course Competencies: VT 260

Task ID	Standard Assessment Criteria	Course ID
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NU04I2	<p>Apply twitch (horse)</p> <ul style="list-style-type: none"> Have assistant restrain horse with halter and lead rope Approach horse cautiously and stand near the horse's head but not directly in front of the horse Place loop of twitch over thumb and three fingers leaving the little finger out Grasp the end of the horse's upper lip Raise the hand with the twitch on it and slide the twitch on the horse's nose Hold the end of the handle in the opposite hand Twist end of the handle toward the head of the horse until twitch is snug Move next to the horse's shoulder and hold the end of the twitch handle 	VT260
NU04I4	<p>Apply nose tongs/ leads</p> <ul style="list-style-type: none"> Properly restrain animal in chute Stand at arms length to the head to avoid being hit if the animal throws its head Quickly place nose tongs in the nares Grasp the end of the rope to keep tongs in a closed position 	VT260
NU04J1	<p>Restrain sheep</p> <ul style="list-style-type: none"> Stand on the left side of the sheep Reach under the base of the neck with the left hand and over the back to the right hind leg with the right hand Gently lift the sheep up off the ground toward the right and upturn it as the right hind leg is lifted to get the animal's weight off the limb The right hand moves to the right foreleg as the left hand moves to the left foreleg Hold sheep on rump facing away from the handler 	VT260
NU04J2	<p>Restrain swine</p> <ul style="list-style-type: none"> Restrain small piglets <ul style="list-style-type: none"> Crowd the piglet into the corner with a board Grasp by hind leg to lift Hold by both hind legs Restrain large swine <ul style="list-style-type: none"> Push pig into corner Step in next to pig's flank area Slip loop of Iowa hog snare over the upper jaw from behind Tighten loop Hold pig by snare 	VT260
NU07A2C	<p>Perform venipuncture: jugular horse</p> <ul style="list-style-type: none"> Select the proper syringe and needle size for the patient and medication to be given Maintain sterility of the needle <ul style="list-style-type: none"> If the needle touches any contaminated surface it must be exchanged for a new sterile needle Palpate the jugular vein <ul style="list-style-type: none"> The right jugular is preferred to avoid damage to the esophagus Occlude the vein at the thoracic inlet Palpate and identify vein Wipe administration site with alcohol swab and let dry Properly introduce needle into administration site <ul style="list-style-type: none"> With vein occluded insert needle at a 45 degree angle to the skin Insert needle through skin and into vein in one motion For horses: do not attach syringe. Observe for blood—dripping verses spurting Aspirate with syringe and check for blood; reposition needle if blood is not observed Deliver medication Withdraw needle Perform recapping procedures correctly <ul style="list-style-type: none"> Avoid needle stick injuries to patients and personnel Place cap on table; do not hold Insert needle into cap Finish capping needle manually Dispose of contaminated needles in appropriate sharps container 	VT260
NU07A2D	<p>Perform venipuncture: jugular ruminant</p> <ul style="list-style-type: none"> Select the proper syringe and needle size for the patient and medication to be 	VT260

	<p>given</p> <p>Maintain sterility of the needle</p> <p>If the needle touches any contaminated surface it must be exchanged for a new sterile needle</p> <p>Palpate the jugular vein</p> <p>The right jugular is preferred to avoid damage to the esophagus</p> <p>Occlude the vein at the thoracic inlet</p> <p>Palpate and identify vein</p> <p>Properly introduce needle into administration site</p> <p>With vein occluded insert needle at a 45 degree angle to the skin</p> <p>Insert needle through skin and into vein in one motion</p> <p>Aspirate with syringe and check for blood; reposition needle if blood is not observed</p> <p>Deliver medication</p> <p>Withdraw needle</p> <p>Perform recapping procedures correctly</p> <p>Avoid needle stick injuries to patients and personnel</p> <p>Place cap on table; do not hold</p> <p>Insert needle into cap</p> <p>Finish capping needle manually</p> <p>Dispose of contaminated needles in appropriate sharps container</p>	
NU07A6A	<p>Venipuncture: ear vein: swine</p> <p>Properly restrain pig with Iowa hog snare</p> <p>Place rubber band around base of the ear as a tourniquet</p> <p>Hold ear</p> <p>Clean injection site with alcohol and let dry</p> <p>Insert a 20 gauge, 1 inch needle attached to a 3 cc syringe into the auricular vein</p> <p>Aspirate sample slowly and collect desired amount</p> <p>Remove tourniquet</p> <p>Withdraw needle</p> <p>Perform recapping procedures correctly</p> <p>Avoid needle stick injuries to patients and personnel</p> <p>Place cap on table; do not hold</p> <p>Insert needle into cap</p> <p>Finish capping needle manually</p> <p>Dispose of contaminated needles in appropriate sharps container</p>	VT260
NU07A7	<p>Venipuncture: coccygeal vein: cow</p> <p>Properly restrain animal in chute</p> <p>Grasp tail and bend towards the back</p> <p>Clean ventral surface of the tail with 70% isopropyl alcohol</p> <p>Insert an 18 to 20 gauge 1 inch needle with syringe attached between the 6th and 7th coccygeal vertebrae perpendicular to the midline</p> <p>Insert until bone is felt and then slowly withdraw, applying suction to the syringe</p> <p>Collect desired amount of blood</p> <p>Perform recapping procedures correctly</p> <p>Avoid needle stick injuries to patients and personnel</p> <p>Place cap on table; do not hold</p> <p>Insert needle into cap</p> <p>Finish capping needle manually</p> <p>Dispose of contaminated needles in appropriate sharps container</p>	VT260
NU09E2	<p>Apply equine leg wraps</p> <p>Apply leg wraps by wrapping limb using slight pressure and overlapping without wrinkles</p> <p>Wrap from distal portion of limb to proximal portion and from lateral to medial</p> <p>Overlap approximately 50% for each wrap</p>	VT260
NU21C	<p>Administer parenteral medication: intradermal</p> <p>Select the proper syringe and needle size for the patient and medication to be given</p> <p>Maintain sterility of the needle</p> <p>If the needle touches any contaminated surface it must be exchanged</p>	VT260

	<p>for a new sterile needle</p> <p>Properly introduce needle into administration site</p> <p>Insert needle into the dermis at a 15° angle to the skin</p> <p>Aspirate with syringe and check for blood; reposition needle if blood is observed</p> <p>Deliver medication</p> <p>Inject 0.1 ml of sterile saline</p> <p>Withdraw needle</p> <p>Perform recapping procedures correctly</p> <p>Avoid needle stick injuries to patients and personnel</p> <p>Place cap on table; do not hold</p> <p>Insert needle into cap</p> <p>Finish capping needle manually</p> <p>Dispose of contaminated needles in appropriate sharps container</p>	
NU22A	<p>Use balling gun (ruminant)</p> <p>Inspect end of balling gun for sharp edges prior to use and do not use if sharp edges are present</p> <p>Properly restrain animal</p> <p>Hold head and neck in normal position</p> <p>Place balling gun in the interdental space of the mouth and then gently position it over the base of the tongue; do not force the balling gun—if resistance is encountered, reposition and try again</p> <p>Do not scrape the roof of the mouth</p> <p>Release the bolus and withdraw the gun</p> <p>Observe animal to ensure that the bolus has been swallowed</p>	VT260
NU22G	<p>Insert oral speculum and stomach tube: ruminant</p> <p>Properly restrain animal</p> <p>Stand on the right side of the animal's head</p> <p>Place left arm over the top of the animal's muzzle and slide the fingers into the interdental space and the thumb on the maxilla to restrain the head</p> <p>With the right hand, insert the Frick speculum into the interdental space and slide it into the animal's mouth and over the base of the tongue</p> <p>Do not let go of the Frick speculum at any time as the animal could swallow it</p> <p>Grasp the Frick speculum with the fingers of your left hand</p> <p>Insert the appropriate end of the stomach tube into the Frick speculum and advance slowly to allow the animal to swallow the tube</p> <p>Confirm placement of stomach tube in rumen</p> <p>Listen to end of tube</p> <p>Smell the end of the tube for fermented rumen gas</p> <p>Feel for stomach tube in the esophagus</p> <p>If you are still unsure of proper placement, blow into the tube and listen for a bubbling sound as air goes through the rumen contents</p> <p>Deliver medication</p> <p>Remove tube</p> <p>Kink tube and gently pull out</p>	VT260

Method of Instruction

Laboratory sessions.

Method of Evaluation

A grade of Pass or Fail will be assigned to students on the basis of proficiency, participation, and attendance and on an average of all assessment scores. Students who receive an unsatisfactory assessment score (score = 1) may retake the assessment one additional time. Any assessment retake will not be scored higher than 2.

Assessment score ratings are as follows;

- 3: Excellent; able to work independently
- 2: Satisfactory; entry level skills
- 1: Unsatisfactory
- 0: Not applicable

Total assessment scores can be converted to a percentage score according to the following scale:

3.00 = 100	2.67 = 89	2.34 = 78
2.97 = 99	2.64 = 88	2.31 = 77
2.94 = 98	2.61 = 87	2.28 = 76
2.91 = 97	2.58 = 86	2.25 = 75
2.88 = 96	2.55 = 85	2.22 = 74
2.85 = 95	2.52 = 84	2.19 = 73
2.82 = 94	2.49 = 83	2.16 = 72
2.79 = 93	2.46 = 82	2.13 = 71
2.76 = 92	2.43 = 81	2.10 = 70
2.73 = 91	2.40 = 80	2.00 = 70
2.70 = 90	2.37 = 79	

Course Requirements

This course adheres to published Veterinary Technology Program Policies and Procedures; however, course requirements may be more stringent.

The online portion of this course adheres to the online and hybrid course policies as published in the Veterinary Technician Policies and Procedures. All Veterinary Technology Program assessments must be successfully completed by each student. Failure to successfully complete all assessment documents may result in a failing grade for the course in which that assessment is evaluated.

Because this course is a required course for graduation with a degree in Veterinary Technology, course requirements will be interpreted in light of the intent and objectives of the Veterinary Technology Program.

It is imperative that the students review Veterinary Technology Program Policies and Procedures and understand the safety guidelines for this course as well as instructor's expectations of the students' professional attitude and classroom conduct.

Veterinary Technology Program Policies and Procedures Section 9.02 states that "the Veterinary Technology student is expected to act in a professional manner in all classroom and activity situations. Students will act professionally in their dress, language and demeanor." Students who are disruptive to fellow classmates or the instructor by acting in an unprofessional manner may be required to leave the classroom.

Students are expected to conduct themselves in a professional manner in attitude, dress and behavior in all laboratory settings. This course requirement prepares students for actual workplace skills and attitudes. Since laboratories simulate workplace situations, students are expected to dress in a manner that will promote respect and confidence from others. Students are required to wear appropriate dress to lab. **Appropriate dress for cattle, sheep, goat, and swine labs includes coveralls and rubber boots. Appropriate dress for horse labs includes a scrub top and smock, and jeans. Rubber boots (if muddy), boots, or enclosed oxford style shoes with a non-skid sole must be worn to horse labs. All clothing must be clean and in a state of good repair. The instructor reserves the right to decide when clothing is inappropriate and may ask students not to wear particular outfits to lab again, or the instructor may dismiss students to go home and change. Students are responsible for making up any missed laboratory work that is incurred by such a request to change clothing.**

Students are required to purchase a minimum of two ultrafine Sharpie markers and have these markers in their possession during laboratories for the purpose of recording keeping on medication vials, labeling

syringes, and other labeling which requires a permanent marking pen. Students are also required to purchase a watch, either digital or analog, capable of displaying seconds. The watch is to be worn in all laboratory sessions. Students are also required to purchase a calculator and small pad of paper, and bring them to all laboratory sessions.

Students must come prepared to all laboratory sessions. Students must wear a watch and bring a fine-tipped black Sharpie pen, a small pad of paper, and a calculator to lab. Students that are not prepared for lab will be sent home to get missing supplies. Students are responsible for making up any missed laboratory work that is incurred by not coming to lab prepared.

Students are required to attend all lecture and laboratory sessions as described in the Attendance Policy section of the syllabus.

If students check out equipment (such as CDs, Videotapes, Sutures boards, etc) to be used for instructional purposes in this class, they must fill out the appropriate Equipment Loan Agreement form. Failure to return the equipment in a timely manner will obligate the student to pay the price of the equipment value as stated on the Equipment Loan Agreement form. A hold will be placed on the student's grades, transcripts and diploma until the college is reimbursed for the cost of the equipment or the equipment is returned.

Use of cell phones during class is prohibited (lecture/lab). Cell phones must be turned off prior to class and remain off during class time.

Assignment Policy

Written assignments or projects are expected to be done on or before the due date. Past due assignments will not be accepted.

Test Policy

All tests are practical exams in a clinical setting.

Attendance Policy

Attendance is mandatory. Roll will be taken.

An unexcused lab cut results in one week of duty (floors, ward care or wherever help is needed) that will be assigned by the instructor. In addition, for each two-hour lab that is unexcused, the student will make up four hours of lab time.

Attendance at the laboratory portion of the classes is vital to the acquisition of workplace skills; therefore, attendance is required. Absences due to extenuating circumstances will be reviewed by the program staff and adjustments made where merited.

Because attendance in lab is vital to the acquisition of workplace competencies, students are expected to be on time for all scheduled laboratory classes. On time is defined as in the classroom and prepared to do coursework at the scheduled starting time. Any time other than on time is late. Students choosing to arrive late are responsible for checking with the instructor for announcements, assignments or notes they may have missed. In addition, late students may not be permitted to make up quizzes and/or will not be granted additional quiz or exam time beyond that scheduled in class.

Academic Integrity Policy

Colby Community College defines academic integrity as learning that leads to the development of knowledge and/or skills without any form of cheating or plagiarism. This learning requires respect for

Colby's institutional values of quality, service and integrity. All Colby Community College students, faculty, staff, and administrators are responsible for upholding academic integrity.

Cheating is giving, receiving, or using unauthorized help on individual and group academic exercises such as papers, quizzes, tests, and presentations through any delivery system in any learning environment. This includes impersonating another student, sharing content without authorization, fabricating data, and altering academic documents, including records, with or without the use of personal and college electronic devices.

Plagiarism is representing or turning in someone else's work without proper citation of the source. This includes unacknowledged paraphrase, quotation, or complete use of someone else's work in any form. It also includes citing work that is not used and taking credit for a group project without contributing to it.

The following procedure will be used for students who violate the policy:

- First Offense – Student will receive a zero for the assignment and the student will be reported to the Dean of Academic Affairs.
- Second Offense – The student will be reported to the Dean of Academic Affairs and removed from the class.
- Third Offense – The student will be reported to the Dean of Academic Affairs and dismissed from the college.

Any questions about this policy may be referred to the Dean of Academic Affairs.

Assessment

Colby Community College assesses student learning at several levels: general education, program, and course. The goal of these assessment activities is to improve student learning. As a student in this course, you will participate in various assessment activities. An example of your work, a paper, some test questions, a presentation, or other work may be selected for assessment. This process will not affect your grade, will not require you do additional work and your evaluation will be confidentially handled. Results of these activities will be used to improve teaching and learning at Colby Community College.

Syllabus Information Disclaimer

"I reserve the right to change any information contained in this document, when necessary, with adequate notice given to the student. Notice shall be given in the classroom during class. No other notice is required. It is the students' responsibility to stay current with any changes, modifications, adjustments or amendments that are made to this document."

Accommodations for Students with Disabilities

According to the Americans with Disabilities Act, it is the responsibility of each student with a disability to notify the college of his/her disability and to request accommodation. If a member of the class has a documented learning disability or a physical disability and needs special accommodations, he/she should contact Student Support Services, which is located in the Student Union.

Equipment

Equipment used in this course is located in the Veterinary Technology laboratory. A list of all equipment available and required is published and may be found in the laboratory.

Bibliography

None

Recommended Resources

None

An Equal Employment/Educational Opportunity Institution

CCC does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs, activities, and employment. The following persons have been designated to handle inquiries regarding the non-discrimination policies:

Title IX Coordinator and Section 504 ADA: Dr. Keegan Nichols -Vice President of Student Affairs
Colby Community College, 1255 S. Range Ave., Colby, KS 67701
(785) 460-5490