

**VE137**  
**Introduction to Laboratory Procedures**  
**3 Credits**

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## VE137 Version: 6



# Introduction to Laboratory Procedures

## Calendar Description

A variety of laboratory procedures are covered including hematology, urinalysis, cytology, microbiology and parasitology. Students are introduced to the different laboratory techniques, and correct collection and handling of specimens. An introduction to skeletal anatomy and physiology of the digestive, circulatory, respiratory, renal and reproductive systems is covered.

## Rationale

This is a required course in the Veterinary Medical Assistant program. VMA's must be able to handle a variety of animal laboratory specimens correctly and safely for collection, storage and shipment. Cleaning and maintenance of veterinary lab equipment, and correct advice for client collection of samples is also a requirement.

## Prerequisites

None

## Co-Requisites

None

## Course Learning Outcomes

Upon successful completion of this course, students will be able to

1. demonstrate proper laboratory safety in the veterinary clinic
2. identify potential safety hazards commonly encountered in the veterinary clinic.
3. follow proper protocol for sanitation procedures in the veterinary clinic and laboratory.
4. identify differences in sanitation standards in various areas of the clinic.
5. state commonly used disinfectants in veterinary medicine.
6. define and maintain common veterinary clinic laboratory equipment and clinic laboratory area.
7. use appropriate laboratory terminology for equipment and procedures.
8. explain the safe and correct collection, handling and storage procedures for animal laboratory samples such as blood, urine, feces and pathology specimens.

9. correctly collect a voided urine or fecal sample.
10. explain the VMA's role in common lab procedures performed in a veterinary clinic on animal specimens.
11. safely and correctly package specimens for shipment to commercial veterinary lab facilities.
12. practice appropriate lab safety.
13. identify anatomical structures and state their function for the following body systems: Musculoskeletal, Integumentary, Digestive, Respiratory, Cardiovascular, Endocrine, Renal and Reproductive.
14. explain common obstetrical procedures in veterinary medicine.
15. use correct veterinary medical terminology in describing procedures, structures, equipment and illnesses.

## Resource Materials

### ***Required Text(s):***

Sirois, M. (2021). *Elsevier's veterinary assisting textbook* (3rd ed.). St. Louis, Missouri:

Elsevier. ISBN: 978-0-323-68145-2

Prendergast, H. (2020). *Front office management for the veterinary team* (3<sup>rd</sup> ed.).

St. Louis, Missouri: Elsevier.

### ***Reference Text(s):***

Hendrix & Sirois. (2007). *Laboratory procedures for Veterinary Technicians* (5<sup>th</sup> ed.).

St. Louis, MO: Elsevier Mosby.

Colville, Thomas P., and Joanna M. Bassert. *Clinical Anatomy and Physiology for Veterinary*

Technicians. Elsevier, 2016.

## Conduct of Course

This is a lecture/lab course. The lecture covers the various laboratory procedures and equipment, including terminology and how to correctly handle, store and package specimens. The lab covers correct machine maintenance, safe collection of voided urine and fecal samples and how to organize a lab maintenance schedule.

## Evaluation Procedures

### Lecture

Midterm exam	15%
Final Exam	20%
Assignments/Quizzes	15%

### Lab

Laboratory assignments & quizzes	30%
Lab Final Exam	20%

Clinic Duty	Pass/Fail
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Students are evaluated on their performance of clinic duty, including attendance and punctuality. One unexcused missed shift may result in a failure in that portion of the course. Students are required to PASS the Clinic Duty portion in order to pass the course.

## Grade Equivalents and Course Pass Requirements

*A minimum grade of D (50%) (1.00) is required to pass this course.*

Letter	F	D	D+	C-	C	C+	B-	B	B+	A-	A	A+
Percent Range	0-49	50-52	53-56	57-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-100
Points	0.00	1.00	1.30	1.70	2.00	2.30	2.70	3.00	3.30	3.70	4.00	4.00

**Students must maintain a cumulative grade of C (GPA - Grade Point Average of 2.00) in order to qualify to graduate.**

### Attendance

Classroom and laboratory attendance is considered vital to the learning process and as significant to the students' evaluation as examinations and reports.

- a. Students having a combination of excused and/or unexcused absence of 20 percent or higher for the scheduled course hours will be required to withdraw and will automatically receive a "RW" (required withdrawal) for the course, regardless of any other evaluation results. (RW is a failing grade.)
- b. An excused absence is one that is verified with your Instructor. Verification should be prior to the absence or the next class day following the absence. Verification of the absence may take the form of a note from your doctor/College nurse regarding illness, or

a note from another Instructor regarding a field trip or other activity, or authorization by your Instructor. An unexcused absence is anything NOT verified by the instructor prior to the absence or the next class day following the absence.

NOTE: Any exceptions to the above attendance policy (e.g. timetable conflicts, work-related issues) must be approved in writing by the Department Chair prior to the beginning of the course.

It is the students' responsibility to know their own absentee record.

Normal hours are 8:30 a.m. to 6:30 p.m., with potential for evening courses, exams or extended field trips. Students are expected to be available for classes during these times.

## **Course Units/Topics**

### Lecture Topics

1. Safety and Biosecurity in Veterinary Practice
2. Clinical Disinfectants and Sanitation
3. Anatomy and Physiology
4. Laboratory Procedures

### Laboratory Topics

1. Lab safety and proper waste disposal
2. Chemical spills and disinfectants
3. Care and Maintenance of Laboratory Equipment
4. Fire extinguisher training
5. Laboratory Sample collection and handling
6. Anatomy and Physiology
7. Gross pathology
8. Sample packaging and shipping
9. Equipment maintenance and quality assurance

## Clinic Duty

1. Sanitation and biosecurity maintenance of the Animal Health Clinic lab and animal spaces.
2. Horse care and enrichment of the program's schooling horses.

Students are required to attend their Clinic Duty organization meeting and assigned shifts. Assessments are a Pass/Fail.



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