

University of Florida College of Veterinary Medicine Syllabus

I. Course information

Course Number: VEM 5895

Course Title: VEM 5897 - Veterinary Forensics Clerkship

Year/Semester: 3rd and 4th year, spring and summer semesters (total of 3 blocks)

Course credit: 2 credits, 2-week rotation

II. General information

Course coordinator and instructor: Dr. Adam W. Stern

Office location & office hours: VC-77; available by email and by appointment as needed.

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Course instructor: Dr. Lerah Sutton

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Course instructor: Dr. Jason Byrd

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III. Course description

The veterinary forensics clerkship is a 2 credit, 2-week rotation that is designed to introduce junior and senior students to veterinary forensic investigations. Up to six students will be on this rotation at a time. Students will focus on two aspects of the forensic investigation: the crime scene and the forensic autopsy.

The clerkship is designed to increase student knowledge of veterinary forensics with both classroom and field work. Given the potential legal ramifications for use of real-life case material, this clerkship is designed to allow for the student to learn the techniques (and make mistakes now rather than in real-life); therefore, much of the teaching material will be mock crime scenes and cadaver work. The actual caseload on a given clerkship will vary and will be purely observational. The first week of the clerkship will be the crime scene component. The second week of the clerkship will focus on the forensic autopsy.

1. Crime Scene

The veterinary forensic investigator may be invited to a crime scene or examine animal victims in a veterinary clinic. Actions of crime scene investigators including forensic veterinarians are crucial in determining the outcome of a criminal investigation. Students will become familiar with the multidisciplinary nature of forensic science and several of the specializations within them and perform tasks pertaining to each specialization. Students will learn how to document and process a crime scene, identifying and collect evidence, and learn basic skills for testifying in court. These skills can be modified for use when documenting and collecting evidence from animals (antemortem or postmortem).

2. Forensic Autopsy

The forensic autopsy is a valuable tool that the forensic investigator has in their toolbox. In this clerkship, the student will perform multiple forensic autopsies. The student will describe lesions of forensic significance as well as write forensic reports based on their case findings. The student will learn how to

accurately describe lesions of forensic importance (such as projectile injuries, sharp force trauma, and blunt force trauma) utilizing written reports, diagrams, and/or photo-documentation.

Course Objectives:

1. Be able to identify and collect evidence related to crimes against animals
2. Explain and demonstrate how to perform basic photography as it relates to crime scenes and/or an animal for evidentiary purposes
3. Perform and explain how to approach a crime scene and search the scene.
4. Explain how to present evidentiary findings in a courtroom setting
5. Describe different disciplines involved in investigating crimes against animals
6. Describe and perform biological examinations, including blood pattern analysis, alternative light source applications, and chemical enhancement procedures
7. Be able to describe the crime scene investigation process and examination of a deceased animal
8. Demonstrate how to perform a forensic autopsy
9. Identify lesions found on animals of forensic importance
10. Accurately describe forensically important autopsy findings in a forensic report
11. Analyze, process, and document a mock crime scene using the culmination of all methodologies and present evidentiary findings.

Prerequisites:

Students should be currently enrolled in the professional veterinary curriculum leading to a DVM and should be in their 3rd or 4th year. The student must have taken VEM 5324 (Veterinary Forensic Medicine) or VEM 5424 (Veterinary Forensic Pathology). As this is an advanced pathology clerkship, the student must have taken VEM 5751 (Anatomic Pathology Clerkship).

Course Outline/Schedule:

In general, students will work day shifts (Monday to Friday). Students will not be required to come on weekends if there are no forensic autopsy cases in the diagnostic laboratory. If forensic autopsy cases are received by the forensic pathology service, students will be able to observe the case workups. Students will receive mock cases to work up during the clerkship. It is important to know that faculty and possibly a house officer (anatomic pathology resident) will be with you and guide you along these 2 weeks.

For this clerkship, time will be split between the College of Veterinary Medicine and the Maples Center for Forensic Medicine.

Basic Schedule:

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Vet Med	Vet Med	Vet Med	Vet Med	Vet Med
Week 2	Vet Med	Vet Med	Vet Med	Vet Med	Vet Med

Week 1

Monday:

9:00 AM – 10:00 AM: Orientation (College of Veterinary Medicine) – Meet in multiheaded scope room (VS-43)

10:00 AM – 12:00 PM: Crime scene investigation training

12:00 PM – 1:00 PM Lunch

1:00 PM – 5:00 PM: Crime scene investigation training

Tuesday-Friday:

9:00 AM – 12:00 PM: Crime scene investigation training

12:00 PM – 1:00 PM Lunch

1:00 PM – 5:00 PM: Crime scene investigation training

Week 2**Monday-Thursday:**

8:00 AM – 8:30 AM: Meet in multiheaded scope room (VS-43)

8:30 AM – 12:30 PM: Forensic autopsy (Veterinary Diagnostic Laboratories Postmortem Room, VS-33)

12:30 PM – 1:30 PM: Lunch

1:30 PM – 5:00 PM: Class room training in V3-114 (report writing, case review)

Friday:

9:00 AM – 12:30 PM: Mock crime scene (includes scene investigation and animal evaluation)

12:30 PM – 1:30 PM: Lunch

1:30 PM – 5:00 PM: Compile mock crime scene findings and present findings in V3-114

Saturday and Sunday:

Student, house officers, and faculty to meet in the morning for forensic autopsies, if necessary. The student will be contacted by telephone by 10:00 AM if required to come in.

A quiz will be administered on the Friday of week 1, which will count towards the student's grade. On the second Friday of the rotation, the students will have to work up a mock crime scene as a team, which will incorporate skills learned during both weeks of the rotation.

Students who need a certain day or days off should contact the course coordinator prior to the start of the rotation.

Paperwork:

Students will be responsible for completing documentation used for crime scene investigation, which includes written notes and diagrams. Forensic autopsy reports will be required for each examination that is performed. We will discuss how to write an objective forensic report during the clerkship.

IV. Course Materials:**Recommended texts:**

Forensic Science: An Introduction to Scientific and Investigative Techniques, 4th Edition, by Stuart H. James, Jon J. Nordby, and Suzanne Bell

Veterinary Forensics: Investigation, Evidence Collection, and Expert Testimony, 1st ed., by Ernie Rogers and Adam W. Stern.

Veterinary Forensic Pathology, Volumes 1 & 2, 1st ed., by Jason Brooks.

V. Evaluation/ Grading/ Testing:

Grading

This is a pass/fail clerkship. Student grades will consist of a week 1 quiz, crime scene investigation and forensic autopsy, forensic autopsy reports, and mock crime scene investigation. The student will be evaluated using the score sheet below. A verbal interim feedback meeting after the first week of rotation will be given. Students in danger of failing the rotation will at this point be given a verbal warning and constructive advice on how to improve. Failing grade for the veterinary forensic clerkship is set at U.

Students will be graded as “Exceeds”, “Meets expectations”, “Competent” or “Below expectation” in each of the following categories and each category is worth 10% of the final grade:

- **Crime Scene Investigation Skills**
 - Exceeds Expectations: Consistently performs an accurate and complete investigation in a timely manner. Consistently able to elaborate key forensic findings and associated subtleties.
 - Meets Expectations: Almost always performs an accurate and complete investigation in a timely manner. Almost always able to address key forensic findings and continued improvement is expected.
 - Competent: Generally, performs a satisfactory investigation. Occasional omissions or inaccuracies. Sometimes prioritizes minor forensic findings over more forensically important findings
 - Below Expectation: Minimally able to perform satisfactory investigation. Frequently findings are incomplete or misinterpreted. Minimal to no improvement seen.

- **Forensic Autopsy Skills**
 - Exceeds Expectations: Consistently performs an accurate and complete forensic autopsy in a timely manner. Consistently able to elaborate key examination findings and associated subtleties.
 - Meets Expectations: Almost always performs an accurate and complete forensic autopsy in a timely manner. Almost always able to address examination subtleties and continued improvement is expected.
 - Competent: Generally, performs a satisfactory forensic autopsy. Occasional omissions or inaccuracies. Sometimes prioritizes minor problems over more critical findings
 - Below Expectation: Minimally able to perform satisfactory forensic autopsy. Frequently findings are incomplete or misinterpreted. Minimal to no improvement seen.

- **Knowledge Base**
 - Exceeds Expectations: Displays superior knowledge and understanding of a variety of common primary, secondary, and tertiary medical problems. Exceptional knowledge pertaining to forensic investigation.
 - Meets Expectations: Displays good knowledge and understanding of a variety of common primary, secondary, and tertiary medical problems. Good knowledge pertaining to forensic investigation.
 - Competent: Displays satisfactory knowledge of a variety of common primary, secondary, and tertiary medical problems. Could benefit from more review related to the specialty. Satisfactory knowledge pertaining to forensic investigation.
 - Below Expectation: Displays limited knowledge in many areas related to the specialty. Limited knowledge pertaining to forensic investigation. Deficiencies hinder ability to progress through cases.

- **Critical Thinking Skills**
 - Exceeds Expectations: Always demonstrates thought processes that are logical and complete. Always able to translate factual knowledge to problem solving.
 - Meets Expectations: Almost always demonstrates thought processes that are logical and complete. Almost always is able to translate factual knowledge to problem solving. Occasional guidance needed.
 - Competent: Demonstrates logical thought processes, but occasional errors noted. Satisfactory ability to translate factual knowledge to problem solving, frequent guidance needed.
 - Below Expectation: Does not demonstrate logical and cohesive thought processes. Displays limited ability to translate factual knowledge to problem solving. Minimal to no improvement in ability to articulate thought process demonstrated.

- **Records**
 - Exceeds Expectations: Always creates forensic reports that are concise, accurate, and always completed on time. Forensic reports are easy to read and provide clear case documentation.
 - Meets Expectations: Almost always creates forensic reports that contain most pertinent information, and are completed on time. Forensic reports are easy to read and provide good case documentation.
 - Competent: Satisfactory ability to create forensic reports that contain most pertinent information, and are usually completed on time. Forensic reports could be better organized but provide adequate case documentation. Could be more consistent.
 - Below Expectation: Minimally able to create problem oriented forensic reports. Forensic reports often contain omissions of relevant information and not well organized. Records contain too much or not enough vital information. Forensic reports may not be completed in a timely manner.

- **Communication**
 - Exceeds Expectations: Consistently communicates and articulates complex information to clients and/or medical personnel exceptionally well; oral and written communication always timely and appropriate. Listens effectively. Strong interpersonal skills.
 - Meets Expectations: Above average ability to communicate and articulate complex information to clients and/or medical personnel, oral and written communication usually timely and always appropriate. Good interpersonal skills.
 - Competent: Satisfactory ability to communicate and articulate complex information to clients and/or medical personnel, oral and written. Satisfactory interpersonal skills.
 - Below Expectation: Has difficulty communicating or articulate ideas effectively to clients and/or medical personnel, oral and written. Interpersonal skills need Improvement. Clients sometimes misinformed or confused after speaking with student. Poor interpersonal skills.

- **Professionalism/Professional Maturity/Ethical Behavior**
 - Exceeds Expectations: Consistently outstanding attitude, effort, interactions, and ethical behavior. Overtly demonstrates maturity, honesty, and respect in interactions with patients, peers, staff, and faculty. Actively seeks feedback and makes adjustments as directed.
 - Meets Expectations: Consistently professional attitude, effort, interactions, and ethical behavior. Interactions with clients, patients, faculty, staff and peers always appropriate. Responds well to offered feedback and effort made to improve in response.
 - Competent: Satisfactory attitude, effort, interactions, and ethical behavior. Typically mature, honest, and respectful in interactions with patients, peers, staff, and faculty. Open to feedback but does not overtly welcome it. May have occasional minor interpersonal concerns.
 - Below Expectation: Poor attitude, effort, interactions, and ethical behavior with patients, peers, staff, and faculty; minimal effort maintained. Disregards feedback when offered.

- **Independent Decision Making**
 - Exceeds Expectations: Demonstrates exceptional ability to make appropriate decisions regarding case management. Takes initiative and anticipates needs of teammates and client/patient. Student is qualified to perform basic duties related to the clerkship unsupervised.
 - Meets Expectations: Demonstrates strong ability to make appropriate decisions regarding case management. Needs some guidance to arrive at decisions or may be occasionally hesitant to make important decisions. Student is mostly qualified to perform basic duties related to the clerkship unsupervised.
 - Competent: Demonstrates ability to make appropriate decisions regarding case management but misses important details. Often needs guidance to arrive at decisions or may be occasionally hesitant to make important decisions. Student is often qualified to perform basic duties related to the clerkship with some supervision.
 - Below Expectations: Demonstrates poor ability to make appropriate decisions regarding case management. Unable to make any decisions without significant guidance or makes inappropriate decisions frequently. Student needs direct supervision and is not qualified to perform basic duties related to the clerkship.

- **Quiz (week 1)**
 - Exceeds Expectations: Student performed at the highest level expected for the assignment (90% and above).
 - Meets Expectations: Student performed very well on the assignment (80-89%)
 - Competent: Student performed adequately on the assignment (70-79%)
 - Below Expectation: Student performed poorly on the assignment (<70%)

- **Mock Crime Scene (week 2)**
 - Exceeds Expectations: Student performed at the highest level expected for the assignment (90% and above).
 - Meets Expectations: Student performed very well on the assignment (80-89%)
 - Competent: Student performed adequately on the assignment (70-79%)
 - Below Expectation: Student performed poorly on the assignment (<70%)

Clinical competencies

In order to pass the rotation, you must complete the minimum number of SLOs in the chart below. SLOs are to be submitted to the course coordinator.

SLO TYPE	SLO	Minimum number required
Elective SLO Opportunity	Identify, collect, and/or analyze evidence	5
	Interpret a cause of injury or death during a forensic autopsy	3
Elective SLO Opportunity	Understand the different forensic science disciplines and how they can be applied to animal cases	3
	Perform a forensic autopsy on an animal	2
Clerkship elective	Demonstrate proficiency in lesion description	2
Core	Demonstrate ability to present case findings and summarize conclusions in writing	2

Student Evaluation of Instruction

Instructor evaluations should be completed at the end of each semester and are a vital part of the University! Evaluations take only a few minutes and can be completed online at <https://evaluations.ufl.edu/evals/>

VI. Administrative Policies: see Student Handbook

<http://education.vetmed.ufl.edu/dvm-curriculum/student-handbook/>

Remediation

The CVM Academic Advancement Committee reviews the academic performance of all students who receive a failing grade in a course, GPA falls below 2.0, or who is currently on probation. The committee will meet with the student and their advisor and decide on appropriate action for the student (including, but not limited to, probation or continuation of probation, repeat of semester or full year, dismissal). Full description of these policies can be in Student Services section of Student Handbook.

Attendance

Excused absences for religious holidays and family/personal emergencies must be reported to OSI/instructor as soon as possible. Please see the UF CVM attendance policy <http://education.vetmed.ufl.edu/student-affairs/attendance-policy/> and submit absence requests online as instructed by OSI.

Academic Honesty

All students registered at the University of Florida have agreed to comply with the following statement: “I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.” In addition, on all work submitted for credit the following pledge is either required or implied: “On my honor I have neither given nor received unauthorized aid in doing this assignment.” To review the student honor code please visit:

<http://www.dso.ufl.edu/judicial/honorcodes/honorcode.php>

Plagiarism includes any attempt to take credit for another person’s work. This includes quoting directly from a paper, book, or website, without crediting the source. Sources should be noted, a link to the website added, or quotation marks placed around the material and attributed, even during online discussions. However, the instructor expects more than simply cutting and pasting in this graduate-level course. Students are expected to review, evaluate and comment on material they research, rather than simply copying relevant material. Work will be graded accordingly.

Professional Behavior

The College of Veterinary Medicine expects all students to be professional in their interactions with patients, colleagues, faculty, and staff and to exhibit caring and compassionate attitudes. These and other qualities will be evaluated during patient contacts and in other relevant settings by both faculty and peers. Behavior of a veterinary student reflects on a student’s qualification and potential to become a competent veterinarian. Attitudes or behaviors inconsistent with compassionate care; refusal by, or inability of, the student to participate constructively in learning or patient care; derogatory attitudes or inappropriate behaviors directed at clients, patients, peers, faculty or staff; misuse of written or electronic patient records (e.g., accession of patient information without valid reason) substance abuse; failure to disclose pertinent information on a criminal background check; or other unprofessional conduct can be grounds for dismissal.

Accommodations for Students with Disabilities

Students requesting accommodations must first register with the Dean of Students Office, Disability Resource Center at 352-392-8565. Students may also apply on-line for accommodations. For more information, see the Disability Resource Center website at: <http://www.dso.ufl.edu/drc/>

The Disability Resource Center will provide a letter to the student who must then meet with OSI to discuss the required accommodations. To ensure that necessary accommodations are provided in a timely manner, it would expedite this process if any student who might need an accommodation would notify OSI during registration.

Student Safety

Contact information for Safety & Security Department: 352-294-4444 (immediate assistance 24/7).

University Policy Department: 392-1111; 911 for emergencies.

Counseling and Wellness Center: <https://counseling.ufl.edu/>; 392-1575.

Staff members in OSI are also readily available for those who need immediate assistance.

VII. Other information:

Dress code

- **Maples Center for Forensic Medicine (Week 1)**
Students will be required to wear clothing that would be acceptable for working both an indoor and outdoor (wooded) setting. Close-toed shoes or work boots will be required.
- **College of Veterinary Medicine (Week 2)**
Students will be required to wear and provide their own scrubs or coveralls when performing forensic autopsies. Boots will be required when on the autopsy floor. For the mock crime scene component (last Friday of the clerkship), clothing similar to that required during week 1 is acceptable.

Basic safety rules for clerkship students on the autopsy floor:

1. Protective attire including calf-high waterproof boots, apron and gloves are to be worn when on the autopsy floor performing forensic autopsies. Tissues should not be handled without protective gloves. Scrubs or coveralls will be laundered by laboratory personnel. Boots should be scrubbed with Surf-cide solution prior to leaving the floor. Cleaned boots should be left on shelves outside the back door in the hallway.
2. N95 masks are available for your use on the floor. In cases where zoonotic diseases are suspected, the pathologist may mandate that all students wear a mask. At all other times, masks are available for your use, if you elect to wear one. You may wish to wear a mask at all times on the autopsy floor if you are pregnant, have an immunosuppressive condition or are taking immunosuppressive medications, but you should clarify this with your personal physician.
3. Due to the nature of the procedure, the autopsy floor at times will be slippery, from dispersed fat, oils, blood, water and other substances. Care must be exercised when walking, moving bodies and moving waste buckets about the floor or in and out of the holding cooler.
4. Students are not permitted to move animals by hoist. Use of the necropsy equipment is under the direct supervision of laboratory personnel on weekdays, and under the supervision of the senior pathologist during off-hours and weekends.
5. Clerkship students are not permitted to use the band saw at any time. Students should wear a surgical mask and eye protection when using the Stryker saw.
6. At no time should an autopsy be performed alone by an unaccompanied clerkship student.
7. All injuries should be reported immediately to the Forensic Pathologist on duty or the Anatomic Pathology service chief for immediate assessment and treatment.
8. If formalin or Klotz contacts your skin, wash with plenty of soap and water. If formalin or Klotz contacts your eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do and continue rinsing. Immediately call a doctor.
9. Unsafe or broken equipment should be reported immediately to laboratory personnel, senior pathologists, or service chief.
10. Used scalpel blades, razor blades, and needles should be discarded into sharps containers.
11. Animal parts for teaching and/or research purposes are not to be removed from the autopsy room without special permission from the Service Chief.
12. Eye protection must be used when using cleaning solution.