

VEM5303 Small Animal Hematology

SEMESTER: SPRING 2021

CREDIT HOURS: 1

GRADING SYSTEM: A-E GRADING

PHASE: III

Course Coordinator

Name: Christopher J. Lanier, DVM, MS, DACVP (Clinical)

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Office Hours: By appointment only. Please e-mail (directly or through Canvas) and allow 24 hrs for a response.

Course Description

- Learn the practical application of hematology to companion animal medicine.
- Learn to interpret hemogram findings, evaluate blood films, bone marrow cytology, and common ancillary diagnostics as these relate to small/companion animal disease conditions.

The course includes lectures as well as discussions that may employ photomicrographs and video microscopy. Laboratories will consist of students reviewing scanned case slides virtually and completing a laboratory worksheet before reviewing cases with the instructor. Video microscopy may also be used.

Student Learning Outcomes

After successful completion of this course, students will be able to:

1. Learn proper procedure for evaluating blood films in dogs and cats.
2. Learn/Review CBC interpretation in dogs and cats.
3. Learn/Review various disorders which cause anemia in companion animals.
4. Learn diagnoses associated with immune-mediated hematopoietic diseases.
5. Learn the various parasites that may infect erythrocytes, leukocytes and platelets.
6. Learn conditions that require bone marrow evaluation, bone marrow collection procedure, and basics of cytological interpretation.
7. Learn commonly employed ancillary diagnostics used for confirmation and classification of hematopoietic malignancies.
8. Learn the pathophysiology, clinical manifestations, and testing associated with retroviral-related hematologic disorders.
9. Learn the diagnosis and management of cases involving hereditary disorders of erythrocytes, leukocytes, and platelets.

10. Learn indications and correct procedures for performing cross matches and blood transfusions.

Course Schedule

This weekly schedule contains topics, assignments, and exams. Please refer to Canvas for updates and announcements to any changes to this schedule.

Lectures will be delivered live to select small groups in the New Auditorium, unless otherwise specified, and recorded for the remainder of the course enrollees. Recording links will be posted in the Canvas website when available.

<i>Date and Time</i>	<i>Topic/Module/Unit</i>	<i>Faculty</i>	<i>SLO # Above</i>	<i>Instructional Hours</i>
01-04-2021 (10:30-11:20)	CBC evaluation – Part I	Lanier	1,2	1.0
01-04-2021 (11:30-12:20)	CBC evaluation – Part II	Lanier	1,2	1.0
01-05-2021 (10:30-11:20)	Immune-mediated hematologic diseases	Lanier	1-4	1.0
01-05-2021 (11:30-12:20)	Cross-matching & Transfusion medicine	Lanier/Sandoval	3,4,10	1.0
01-06-2021 (10:30-12:20)	Case Discussion #1	Lanier	1-4	2.0
01-07-2021 (10:30-12:20)	Infectious Agents in Peripheral Blood	Lanier	1-5	2.0
01-08-2021 (10:30-12:20)	Laboratory Discussion #1	Lanier	1-5	2.0
01-11-2021 (10:30-12:20)	Bone Marrow Evaluation	Lanier	1,2,3,6	2.0
01-12-2021 (10:30-12:20)	Case Discussion #2	Lanier	1-6	2.0
01-13-2021 (10:30-12:20)	Ancillary Diagnostics in Hematology	Lanier	1,2,3,7,8	2.0
01-14-2021 (10:30-12:20)	Hereditary Disorders of Hematopoiesis	Lanier	1,2,3,9	2.0
01-15-2021 (10:30-12:20)	Laboratory Discussion #2	Lanier	1-9	2.0
01-20-2021 (10:30-12:20)	Course Review	Lanier	ALL	2.0
01-22-2021 (8:00-10:30)	Final Examination		ALL	
		Total		22.0

Required Textbooks and/or Course Materials

There are no required textbooks or materials. A reliable computer or device and VPN access is required to access the Aperio virtual slide database for laboratory participation.

Recommended Textbooks and/or Course Materials

- “Veterinary Hematology: A Diagnostic Guide and Color Atlas,” 2nd Ed. John W. Harvey, editor.
- “Fundamentals of Veterinary Clinical Pathology,” 2nd Ed. Steven L. Stockham and Michael A. Scott, editors.
- <http://www.eclinpath.com/>

Methods of Evaluation

Grades will be calculated based on the following:

Item	Weight
Discussion sessions (attendance required)	5 %
Laboratory sessions (attendance required)	10 %
Final Exam	85 %
Total	100 %

Note: Late assignments will not be accepted. Exams will be delivered via Canvas with proctoring through ExamSoft.

Grading Scheme

Course grades will be assigned based on the following grading scheme. This grading scale is **final**.

Letter	Scale
A	100.00 – 94.00
A-	93.99 – 90.00
B+	89.99 – 87.00
B	86.99 – 84.00
B-	83.99 – 80.00
C+	79.99 – 77.00
C	76.99 – 74.00
C-	73.99 – 70.00
D+	69.99 – 67.00
D	66.99 – 64.00
D-	63.99 – 61.00
E	60.99 – 0

Course Policies

Online Learning Policies:

This course will be delivered in-person in the New Auditorium to a group of students on a rotating basis. The College of Veterinary Medicine asks that students, when possible, have cameras turned on for courses in the professional curriculum, which facilitates participation and professional communication. Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have

your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Face-to-Face Course Policies:

In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>), please use the UF Health screening system (<https://coronavirus.ufhealth.org/screen-test-protect/covid-19-exposure-and-symptoms-who-do-i-call-if/>) and follow the instructions on whether you are able to attend class.
 - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work (<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>).

Curriculum Policies

DVM curriculum policies are consistently held and reinforced across all DVM courses. Please visit the DVM webpage and review the curriculum policies listed within the [Online Student Handbook](#).

Students with Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting www.disability.ufl.edu/students/get-started. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. **Students in UF Health Sciences programs should be mindful that unique course accommodations may not be applicable in a clinical, fieldwork or practicum setting. Thus, planning a semester in advance with the DRC Health Sciences Learning Specialist, Lisa Diekow ldiekow@ufsa.ufl.edu, is highly encouraged.**

The DRC is located on the main UF campus. ASA (Office for Academic and Student Affairs) works closely with the DRC to ensure student accommodations are met in the classroom and during exams. Melissa Cox in ASA assists in coordinating exams and meeting recommended disability-related requirements for students with accommodations (melissacox@ufl.edu).

Course and Instructor Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available on the [GatorEvals Webpage](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via the [Online Platform](#). Summaries of course evaluation results are available to students at the [GatorEvals Public Results Webpage](#).

Appendix A: Faculty Lecturers

Dr. Kamila Sandoval

Email: ksandoval@ufl.edu

Dr. Jacqueline (Jackie) K. Dolan

Email: dolanjk@ufl.edu

Dr. Laura C. Cagle

Email: la.cagle@ufl.edu

Dr. Sarah S.K. Beatty

Email: skbeatty@ufl.edu

Appendix B: Other Information

1. Discussions.

- a. There are two scheduled discussion sessions, both of which will be conducted in similar fashion to the lecture sessions (delivered live, in-person and virtually) and will be recorded.
- b. Each session will be worth 2.5 points, for a total of 5 points overall toward the final course grade.
- c. Prior to each session, hematologic data pertaining to several cases, each with a set of question prompts, will be made available to course enrollees under the corresponding Canvas module. The questions will assist the live discussion and participation.
- d. An in-person attendee may be requested to assist the instructor with monitoring the Zoom Chat platform for questions by virtual attendees.

2. Laboratories.

- a. There are two scheduled laboratory sessions that will be conducted virtually (no in-class or laboratory attendance required).
- b. There are scanned blood films that pertain to each assigned case in the Aperio virtual slide imaging system. (link to be provided)
- c. Similar the discussion session, a worksheet with a set of question prompts pertaining to each case will be provided in advance under the relevant Canvas module.
- d. Worksheets must be completed and uploaded for instructor review no later than (NLT) 8:00 AM the day of the laboratory. Worksheets that bear a time stamp after 8:00 AM on the due date will be reduced 0.5 points and an additional 0.5 points for every day thereafter until submitted or unless a valid excuse is cleared with the course coordinator.
- e. The instructor will review the significant findings pertaining to each case via a Zoom session using a remote microscope linked to a camera.