

Aquatic Wildlife Health Issues

Dr. Iske Larkin course coordinator
University of Florida, College of Veterinary Medicine



Dr Iske Larkin

I. Course information for 2021

Number: **VME 6011, VME 4013, VEM 5372**

Semester: Spring

Course credit: 3 (2 credits for UF DVM students)

Graduate (VME 6011): Class 21911, Section 136F UF students; Class 19925, Section 202B non-UF students; Class 25287, Section CCAS Care & Conservation Aq An Certificate students.

Undergraduate (VME 4013) Class 21909, section 1345 UF students; Class 19922 sect 2008 non-UF students

UF CVM (VEM 5372) in-state Class 19978; off-book Class 19979

To Access the course, please go to: <http://elearning.ufl.edu> starting **Monday, January 11th, 2021** hit the 'Log into e-Learning' button and log in with your Gator link username and password. You should see the following link at the top of the page: VME4013/VME6011/VEM5372: Aquatic Wildlife Health Spring 2021.

II. General information

Course director: Dr. Iske Larkin, PhD

Office location & office hours: E-learning web mail; 8am-5pm EST M-F during the course

Office phone number: 352-294-4095

Email: IVLarkin@ufl.edu

Course Faculty: Shirley Baker³, Don Behringer³, Bob Bonde^{1, 8}, Alissa Deming¹, Amanda Duffus¹⁴, Claire Erlacher-Reid¹⁰, Mark Flint^{9, 11}, Salvatore Frasca Jr.¹, Trevor Gerlach¹², Jeff Hill³, Iske Larkin¹, Robert Ossiboff¹, Allison Peterson¹, Roger Reep¹, Alicia Reid, Megan Stolen¹³, Kent Vliet², Jim Wellehan¹, Randall Wells^{1,5}, and Roy Yanong³

¹ – University of Florida, College of Veterinary Medicine; ² - University of Florida, College of Liberal Arts and Sciences; ³ - University of Florida, College of Agricultural and Life Sciences; ⁵ – Chicago Zoological Society; ⁶ – Florida Fish and Wildlife Conservation Commission; ⁸ - U.S. Geological Survey, Sirenia Project; ⁹-University of Queensland, School of Veterinary Science; ¹⁰- SeaWorld, San Diego; ¹¹ - Florida Aquarium; ¹² – The Animal Medical Clinic; ¹³ – Hubbs-SeaWorld Research Institute; ¹⁴ – Gordon State College

Teaching Assistant: Sarah Wahltinez and Liz Brammer-Robbins

Prerequisites

At least 2 courses beyond basic Biology I & II (BSC2010 & 2011) in the following scientific fields: physiology (example-PCB4723C), anatomy (example-ZOO3713C), ecology (example-PCB4043C), behavior (example-ZOO3513C), vertebrate zoology (example-ZOO4307C), or instructor permission.

If you have technical problems with accessing the course web site, your course coordinator and TA may be able to address some things, but ideally you should contact UF computer support:

- Web page <http://helpdesk.ufl.edu/>
- e-mail helpdesk@ufl.edu
- call (352) 392-4357 - (now available 24/7)
- 'e-Learning Tutorial' link to the left within E-Learning/Canvas

Their office hours are as follows: **Monday-Thursday:** 7:30am-10:00pm EST

Friday: 7:30am-5:00pm EST

Weekends: 12:00pm-6:00pm EST

III. Course description

Course goals/ Educational goals: To introduce students to the natural history, anatomy, physiology, behavior, and common health issues of aquatic wildlife such as: whales and dolphins, seals and sea lions, manatees, sea turtles, crocodilians, fish and invertebrates. Students will practice scientific writing skills with a term paper requirement. Students should be able to differentiate between normal and unhealthy animals by appearance and behavior, and have a working knowledge of common natural history and health issues of the species covered.

Course Organization: The class will focus to a large extent on lectures and a significant amount of reading from book chapters and primary scientific literature on the topic chosen for a given module, and discussion

to establish a baseline of information on marine mammals, sea turtles, crocodilians, fish and invertebrates.

- The MediaSite lectures are taped seminars given by individuals from various institutions, as listed above, who are experts specializing in the topics covered.
- Rather than have exams, students will be expected to review the reading material and the MediaSite lectures, then complete the module quiz and related homework assignments. The quizzes within each module may be taken 3 times before the due date, are open book, and the highest score will count towards your grade.
- Q&A sessions will be held every other week as an opportunity to ask questions of the guest lecturers. For the Participation grade, students will be asked to provide questions through the discussion board prior to the Q&A session. Questions will then be covered online in Adobe Connect sessions with the lecturers as an opportunity to ask questions in real time. Due to the asynchronous set up of the class, it will NOT be required for students to attend the live sessions, but extra credit points towards the Participation grade will be offered. Questions covered during the sessions will be taped, allowing access through a link to be viewed at the student's convenience.
- Module homework assignments will include items like a 2 page review and critique of a scientific journal article, 10 slide power point presentation and literature searches of scientific publications.
- Undergraduate students will be asked to write a 5 page review paper on an aquatic health related topic. Students will have opportunities to hand in drafts of sections and conduct/receive classmate reviews before the final paper is due.
- Graduate students will be asked to write a 5 page grant proposal to study a related aquatic topic and like the undergrads, will have opportunities to hand in drafts of sections and conduct/receive classmate reviews before the final paper is due.

Grades will be proportioned as indicated in the table below (see: **V. Evaluation/ Grading/ Testing**) and will be based on TA and Professor assessments outlined in provided grading rubrics.

Learning objectives, directions for assignments, lectures and due dates will be provided within each learning module.

Course Outline & schedule:

Generally you will see the following schedule each week, but some exceptions may occur:

Quizzes and Homeworks are due on alternating Sundays at 11:59 pm Eastern Standard Time (EST) within each module. Some homework assignments may have a Part 1 & Part 2, with Part 1 due earlier than Sun.

Adobe Connect **Question & Answer sessions** will be held Wednesdays 3:00 – 4:00 pm EST (sessions will be taped and can be viewed asynchronously)

Please note, this schedule is subject to change depending upon lecturer availability. Notices of change will be provided through Announcements within E-learning and updates provided on the syllabus attached within the Syllabus link in E-learning.

Week	Topic/Module	Lectures	Quizzes/Assignments	Due dates
Week – 1 (Jan 11-17)	Introduction & Manatees	Florida Manatee Biology (Larkin)	Quiz: Syllabus	Sun Jan 17 - 11:59 pm
		Manatee Care and Health Issues (Gerlach)		

Week – 2 (Jan 18-24)		Manatee Brain & Behavior (Reep)	Q&A: 1	Post questions Tues Jan 19 (11:59 pm)
				Live session Wed Jan 20 (3:00-4:00 pm)
		Manatee Metabolism (Peterson)	Quiz: 1	Sun Jan 24, 11:59 pm
Population Genetics and Conservation of the Florida Manatee (Bonde)				
Week – 3 (Jan 25-31)	Crocodilians	Natural History, Anatomy, Physiology, Behavior (Vliet)	Term Paper: Part 1	Sun Jan 31, 11:59 pm
		Crocodilian Health (Wellehan)	HW 1: Science article review	
Week – 4 (Feb 1-7)	Sea Turtles	Natural History, Anatomy, Physiology, Behavior (Flint)	Q&A: 2	Post questions Tues Feb 2 (11:59 pm)
				Live session Wed Feb 3 (3:00-4:00 pm)
		Sea Turtle Disease (Flint)	Quiz: 2	Sun Feb 7 - 11:59 pm
Week – 5 (Feb 8-14)	Invertebrates	Invertebrate Taxonomy, Anatomy, and Physiology (Baker)	HW 2: Species Power Point	Sun Feb 14, 11:59 pm
		Invertebrate Disease Ecology (Behringer)		
Week – 6 (Feb 15-21)	Fish	Taxonomy, Anatomy & Physiology (Hill)	Q&A: 3	Post questions Tues Feb 16 (11:59 pm)
				Live session Wed Feb 17 (3:00-4:00 pm)
		Fish Disease (Yanong)	Quiz 3	Sun Feb 21 - 11:59 pm
Week – 7 (Feb 22-28)		Natural History, anatomy, Physiology, Behavior (Wells)	Term Paper: Part 2 Draft	Thurs Feb 25 - 11:59 pm
		Right Whale Conservation (Reid)	Term Paper: Part 2 Review	Sun Feb 28 - 11:59 pm
Week – 8 (Mar 1-7)	Cetaceans	Unusual Mortality Events (Wells)	Q&A: 4	Post questions Tues Mar 2 (11:59 pm)
				Live session Wed Mar 3 (3:00-4:00 pm)
		Field Techniques for Cetacean Research (Wells)	Quiz 4	Sun Mar 7 – 11:59 pm
Week – 9 (Mar 8-14)	Mortality & Management	Health Assessments and Rehabilitation (Bonde)	HW 3: Mortality Mitigation	Sun Mar 14 - 11:59 pm
		Stranding Response and Necropsy (Stolen)		
Week – 10 (Mar 15-21)	Pinnipeds	Anatomy, Physiology, Behavior & Health (Erlacher-Reid)	Term Paper: Part 3 Draft	Thurs Mar 18 - 11:59 pm

			Term Paper: Part 3 Review	Sun Mar 21 - 11:59 pm
Week – 11 (Mar 22-28)	Research & Techniques	Molecular Techniques (Deming)	Q&A: 5	Post questions Tues Mar 23 (11:59 pm) Live session Wed Mar 24 (3:00-4:00 pm)
			Quiz 5	Sun Mar 28 – 11:59 pm
Week – 12 (Mar 29 - Apr 4)	Conservation Issues & Aq Bird Rehab	Across Aquatic Species: overview of conservation issues (Larkin) & Aquatic Bird Rehabilitation (Bast)	Term Paper: Final due	Sun Apr 4 – 11:59 pm
Week – 13 (Apr 5-11)	Amphibians	Natural History, Health & Conservation (Duffus)	HW 4:	Sun Apr 11 – 11:59 pm
Week – 14 (Apr 12-18)	Pathology	Amphibian Pathology & Clinical Disease (Ossiboff)	Q&A 6: Adobe Connect	Post questions Tues Apr 13 (11:59 pm) Live session Wed Apr 14 (3:00-4:00 pm)
		Pathology of Aquatic Species (Frasca)	Quiz 6	Sun Apr 18 – 11:59 pm
Week – 15 (Apr 19-21)	Summary & Conclusions	Student Evaluations	Course Likes/Dislikes discussion	Wed April 21- 11:59 pm

IV. Course Materials

- Reading material will be provided in PDF format through links on the E-learning/Canvas site and should be reviewed before viewing the MediaSite lectures.
- MediaSite lectures will also be provided through links on the E-learning/Canvas site.
- From the background reading material and MediaSite lectures provided, students will be asked to answer questions from a quiz, under the 'Quizzes' link.
- Within modules students may have related discussion questions for the electronic message board on the given topic or assignments, found under the 'Discussions' link. Homework within modules, found under the 'Assignments' link.
- Undergraduate and graduate students are expected to write a term paper. *Graduate* students will write a 5 page grant proposal on an aquatic animal related topic. *Undergraduate* students will be asked to write a 5 page review paper on an aquatic animal health related topic of their choice. Students will have opportunities to hand in drafts of sections and conduct/receive classmate reviews before the final paper is due.

Directions for assignments, lectures and due dates will be provided within each learning module.

Library Support

Hannah Norton has agreed to provide assistance with accessing the UF library system and conducting literature searches. She can be reached at nortonh@ufl.edu.

MediaSite Lectures

If you are having trouble accessing the lectures through the MediaSite Link, when prompted you need your Gator Link User Name and Password and you may need to download Silverlight if it does not automatically prompt you to do so. You may install Silverlight through the following link:

<http://www.microsoft.com/getsilverlight/Get-Started/Install/Default.aspx>

Note on assignments

When applicable (meaning not for the website discussion board postings), assignments must be in a MS Office document format (use .doc or .docx for documents, .ppt or .pptx for powerpoint, etc.) Sorry Apple people. You can use iWork, but just save the file as .doc, etc. and prepare for cross compatibility issues. If you do not have MS Office for Windows/Mac or iWork for Mac, there is a freeware version of such software that is compatible. You can find it at www.OpenOffice.org. The files created with this software can also be saved as .doc, .ppt, etc. If this is something you would like to do, but need some help you can contact the campus computer support group (e-mail helpdesk@ufl.edu, 'e-Learning Tutorial' link to the left within E-Learning, or call (352) 392-4357).

For the most current information on the computer requirements, please visit this page before the course begins: <http://helpdesk.ufl.edu/self-help/new-student-resources/>

V. Evaluation/ Grading/ Testing:

Feedback

You will find feedback on your assignments under the Grades page, associated with each Assignment link. Discussion assignments will also be graded and feedback is also under the related Assignment link. Grades for the assignments, discussions and quizzes will show under the Grades page and should be provided approximately 2 weeks after the due date.

Feedback on the quiz answers will be provided after quizzes are due. You can find this under the specific quiz link. E-Learning grades the quizzes automatically, however essay questions will be graded by TAs and the course coordinator. Homework and term paper grades will be based on TA and Professor assessments outlined in provided grading rubrics.

Graduate and Undergraduate, for-credit, students:

90%	Performance & Knowledge of Subject Area	
	Ability to satisfactorily integrate reading material, discussions, and writing assignments as demonstrated	
	30%	Completing quizzes
	30%	Homework assignments (equally weighted across modules) – includes critical review of a scientific paper, a power point presentation, discussion board postings etc... <i>(Rubric point scales for each assignment are for grading and feedback. Differences in point scales do not reflect differing % to final grade between assignments.)</i>
	30%	Literature Review paper & Review- undergraduates

		Grant proposal & Review - graduate students
10%	Participation	
		Participation in Q&A sessions

For CE students:

90%	Performance & Knowledge of Subject Area	
	Ability to satisfactorily integrate reading material, discussions, and writing assignments as demonstrated	
	45%	Completing quizzes
	45%	Homework assignments (equally weighted across modules) – includes critical review of a scientific paper, a power point presentation, discussion board postings etc... <i>(Rubric point scales for each assignment are for grading and feedback. Differences in point scales do not reflect differing % to final grade between assignments.)</i>
10%	Participation	
		Participation in Q&A sessions

CE students will receive a certificate of completion for grades of a C or better, all other students will receive their calculated letter grade as indicated above.

For Veterinary Students:

100%	Performance & Knowledge of Subject Area	
	Ability to satisfactorily integrate reading material, discussions, and writing assignments as demonstrated	
	50%	Quizzes
	50%	Homework assignments (equally weighted across modules) – includes critical review of a scientific paper, a power point presentation, discussion board postings etc... <i>(Rubric point scales for each assignment are for grading and feedback. Differences in point scales do not reflect differing % to final grade between assignments.)</i>

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
100-94	93-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-0

Note – Homework assignments completed past the due date will automatically be graded -10% as late. Points will continue to be removed over time past the due date an additional -10% per day.

Late quiz submissions will **not** be accepted. You must submit at least one quiz ~10 min before the final due date/time for the system to be able to process and recognize your submission or it will give you a 0.

If there are problems and you find yourself falling behind, contact me ASAP. Notifying us after the fact will not add points back that have already been removed. Please be prepared to provide documentation, such as an IT ticket number, doctor's note or other official paperwork with your name and date of event should something come up to prevent you from participating on time in the class (ex – computer problems, illness, car accident, death in the family etc....)

All work conducted should be done independently unless specifically indicated in the assignment directions. Any writing should be your own thoughts or a summary of other reading material. Plagiarism will result in a 0 for the assignment and depending upon the severity of the issue may result in a 0 for the class.

Turnitin is a plagiarism Checker and will be used within the course.

This is a link to a video on citing sources and avoiding plagiarism (Dr. Martin Simpson, UF)

<http://mediasite.video.ufl.edu/mediasite/Viewer/?peid=adaa44500eaf460a84f238e6b9a558f91d>

This is a link to AMA formatting which is the default citation formatting for this class unless you specify you are using a different format.

<https://libguides.usc.edu/c.php?g=293795&p=1956824>

For more information on grades and grading policies, please visit:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- ☐ UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- ☐ Career Resource Center, Reitz Union, 392-1601, career and job search services.

Many students experience test anxiety and other stress related problems. "A Self Help Guide for Students" is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their web site:

<http://www.counseling.ufl.edu/cwc/>

Honesty Policy

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." If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

Accommodation for Students with Disabilities

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drc/>. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

If comfortable, please also contact the instructor directly after registering for this course so we can ensure accommodations are met in a timely manner.

Software Use

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

EVALUATIONS - 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 at <https://gatorevals.aa.ufl.edu/students/>. 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 <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.