

VEM 5377 Marine Mammal Medicine

SEMESTER: FALL 2021

CREDIT HOURS: 1

GRADING SYSTEM: PASS-FAIL

PHASE: 3

Course Coordinator

Name: Michael Walsh DVM, EZCM (ZHM)

Phone: 352-222-4948

Email: walshm@ufl.edu

Office Hours: By appointment only.

Course Description for Zoom Presentation

This course covers the husbandry and medicine of selected marine mammal species including manatees, cetaceans and pinnipeds as examples of species encountered in aquariums and zoos. It is developed for veterinary students in their clinical years and is more clinically detailed in a number of medical techniques and supportive information such as anatomy and diet to give the new inexperienced clinician a basic understanding needed to enhance the problem solving thought process for these species. It incorporates additional instructors with extensive experience in the marine animal field. The goal of this course is to help the clinical student to understand the wide wealth of information in numerous disciplines that can contribute to their core competency in approaching clinical applied to marine species. Portions of the course are based on the prior involvement of students who have taken SeaVet but are enhanced with more case studies to help make it different with a higher involvement of clinical thinking and collaborative. There is no requirement for having first taken SeaVet though the anatomic and environment lectures may touch on similar perspectives to catch up newly interested students.

It will emphasize the universal application of standard behavioral issues, observation skills, diagnostic techniques and therapeutic approaches that apply to all species regardless of their level of domestication or size. The course is graded on a pass/fail basis and the final is case based problem solving. We will also emphasize with cases the need for students to shift from a test based system of responsibility to retain information to one of personal responsibility that will fit their "need to know" and retain information for the sake of their patients similar to practice. Student questions will be encouraged. It will change in minor areas of content with new information as it continues to develop. There is one wet lab on how to inspect and evaluate food fish diets as part of their nutritional responsibility.

Interested Students are encouraged to familiarize themselves with basic taxonomy and other information available in the library and in the books recommended. These will be placed on reserve before the course.

The fish inspection lab will not take place in person at this point.

Student Learning Outcomes

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

1. Be able to develop a basic understanding of marine mammal anatomy and illustrate its similarities and differences from the more common species
2. Understand the challenges and importance of water environmental factors and the relation to animal health
3. Understand differences in marine mammal behavior and relate that information to environmental change, training issues and the clinical relevance that they these factors influence
4. Recognize and consider important infectious diseases and how they relate to public health and zoonosis
5. Have a broad overview of cetacean, manatee and pinniped medicine and options available to the marine mammal veterinarians for diagnosis and therapy
6. Understand the challenges and goals of diagnostic imaging
7. Understand the role of veterinarians in wild animal health assessments and intervention for anthropogenic complications
8. Be able to seek advice from colleagues and develop an option base medicine approach
9. Have a in depth knowledge of basic dietary issues and the relationship to nutritional management and hydration
10. Understand differences in laboratory values such as CBC and chemistries between marine and terrestrial animals
11. Be able to prepare and plan for reproductive health complications in marine species
12. Understand the different perspectives on captivity that influence the care of these species
13. Emphasize problem solving skill development through case examples

Course Schedule 2021

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

Class meetings will be held in person unless parameters for presentation have changed prior to the course timeline.

<i>Date and Time</i>	<i>Topic/Module/Unit</i>	<i>Faculty</i>	<i>SLO # Above</i>	<i>Instructional Hours</i>
9-27-2021 8:30-9:20	Marine Mammal Anatomy	Mike Walsh	1	1.0
9-27-2021 9:30-10:20	Welfare and Social Attachment	Mike Walsh	2	1
9-28-2021 8:30-9:20	Pinniped medicine	Carolina Le-Bert	4,8	1
9-28-2021 9:30-10:20	Diagnostic Imaging of Cetaceans	Carolina Le-Bert	4,8	1
9-29-2021 8:30-9:20	Cetacean Medicine	Mike Walsh	3	1
9-29-2021 9:30-10:20	Cetacean Medicine	Mike Walsh	3	1
9-30-2021 8:30-9:20	Cytology of Marine Mammals	Nicole Stacy	6,8	1
9-30-2021 9:30-10:20	Blood Indices of Marine Mammals	Nicole Stacy	4,5,8	1
10-01-2021 8:30-9:20	Neonatal Care	Forrest Townsend	5	1
10-01-2021 9:30-10:20	Wild Cetacean Health Assessments	Forrest Townsend	8	1
10-04-2021 8:30-9:20	Manatee Medicine	Mike Walsh	2,3,4,8	1
10-04-2021 9:30-10:20	Manatee Medicine	Mike Walsh	2,3,4,8	1
10-05-2021 8:30-9:20	Environmental Health Factors	Mike Walsh	4,8,10	1
10-05-2021 9:30-10:20	Behavioral Parameters and Health	Mike Walsh	4,8,10	1
10-06-2021 8:30-9:20	Entanglement Intervention	Craig Pelton	7	1
10-06-2021 9:30-10:20	Captivity and Welfare discussion	Craig Pelton	12	1
10-07-2021 8:30-9:20	Reproductive Health and Complications	Mike Walsh	8,11	1
10-07-2021 9:30-10:20	Diet Basics and health	Mike Walsh	8,9	1
10-11-2021 8:30-9:20	Case Studies –Mass Stranding Insights	Mike Walsh	4,8,13	1
10-11-2021 9:30-10:20	Final test review	Total		20

Required Textbooks and/or Course Materials

None

Recommended Textbooks and/or Course Materials

CRC Handbook of Marine Mammal Medicine Dieruaf and Gull and Ed. 3rd Ed, 2018 (medicine). This includes contributions in many areas of husbandry and medicine from numerous respected contributors.

Whales, Dolphins, and Porpoises, Carwardine, M., Smithsonian Press, 2002 (recognition guide and some taxonomy). This will help with exposure to taxonomy and natural history

Marine Mammals Ashore: A Field Guide for Strandings, Geraci, J. R., Lounsberry, V.J., 1998 CD-ROM version

Required: Course notes distributed in the course. All notes have the potential of being modified during course period.

Supplemental Material:

Will be provided via email and posted online; and will include:

Animal Welfare Act

Marine Mammal feeding techniques, USDA

Sterilization of Marine Mammal Water, USDA

Methods of Evaluation Pass Fail

Grades will be calculated based on the following:

Item	Weight
Attendance	50 %
Final Exam	50 %
Total	100 %

Note: **Late assignments will not be accepted.**

Grading Scheme

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

70% - 100%	Pass
0%- 69%	Fail

Course Policies

Attendance 50%, students are allowed one unexcused absence with a follow up explanation, or one planned absence with a warning of the impending issue given to the instructor. Failure to attend the required number of classes with the above absence policy is grounds for not passing the course.

Final- 50% of grade-failure to complete the final is grounds for not passing the course.

Professional Behavior – cell phones, computers, and other electronic devices are not allowed to be open in class

The final will be composed of clinical scenarios that are encountered in practice and will be open book and lifeline questions will be allowed to simulate communication with peers in practice.

Curriculum Policies

Attendance 1 unexcused absence, 1 excused after contact with the course coordinator

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 Pett 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. Mike Walsh - University of Florida

Email: walshm@ufl.edu

Dr. Craig Pelton

Email: cpelton@ufl.edu

Dr. Nicole Stacy

Email: staceyn@ufl.edu

Appendix B: Other Information

Could be assignment details, rubrics, etc.