Aquatic Wildlife Health Issues (3 credits)
Dr. Iske Larkin course coordinator
University of Florida, College of Veterinary Medicine

I. Course information for Year 2012
Number: VME 6934 and VME 4906
Semester: Summer C –
Graduate (VME 6934): Section 9163 UF students; Section 9169 non-UF students
Undergraduate (VME 4906) Section 9328 UF students; Section 9709 non-UF students

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 Bonde1,8, Alex Costidis1, Mark Flint1,9, Trevor Gerlach1,6, Elsa Haubold6, Jeff Hill1, Iske Larkin1, Hendrik Nollens10, Tom Pitchford6, Roger Reep1, Alicia Reid, Kent Vliet2, Tom Waltek4, Jim Wellehan1, Randall Wells1,5, and Graham Worthy7.
1 – University of Florida, College of Veterinary Medicine; 2 - University of Florida, College of Liberal Arts and Sciences; 3 - University of Florida, Institute of Food and Agricultural Sciences; 4 - University of Florida, Emerging Pathogens Institute; 5 – Chicago Zoological Society; 6 – Florida Fish and Wildlife Conservation Commission; 7 – University of Central Florida; 8 - U.S. Geological Survey, Sirenia Project; 9-University of Queensland, School of Veterinary Science; 10 - SeaWorld, San Diego

Teaching Assistants: TBA

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), zoology (example-ZOO2203C), or instructor permission.

If you have technical problems with accessing the course web site, you should contact UF computer support:
- e-mail learning-support@ufl.edu
- call (352) 392-4357 - select option 2
- ‘e-Learning Tutorial’ link to the left within Sakai

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 of the course: To introduce students at the graduate and undergraduate level 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.

Course objectives: 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 class, and discussion to establish a baseline of information on marine mammals, sea turtles, crocodilians, fish and invertebrates. 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.

- 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 self test 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.
- Elluminate sessions will be provided weekly as an opportunity to ask questions in real time. While preferred, it will NOT be required for students to attend the real time session, but students WILL be asked to provide questions through the discussion board. Questions will be covered during the sessions, which 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 related topic. Once handed in, identifying names will be removed and each student will then be asked to review and rank at least two papers.
- Graduate students will be asked to write a 5 page grant proposal to study a related aquatic topic and like the undergrads, will be asked then to review proposals from their classmates.

Grades will be proportioned as indicated in the table below and will be based on TA and Professor assessments outlined in provided grading rubrics.

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:

  Modules Quizzes are due the last Wed at 10:00pm EST within each module
  Elluminate Question & Answer sessions will be held the last Thursday 3:00–4:00pm EST within each module (attendance to real-time session is not required, session will be taped and can be viewed asynchronously)
  Homeworks are due the last Sunday at 6:00pm EST within each module

WK-1

**Introduction & Manatees**
Syllabus quiz (Larkin)
Natural History, Anatomy, Physiology, Behavior – (Larkin)
Manatee Care and Health Issues (Gerlach)

WK-2

Hair – (Reep)
Genetics – (Bonde)
Metabolism and Thermoregulation – (Worthy)

WK-3

**Crocodilians**
Natural History, Anatomy, Physiology, Behavior – (Vliet)
Crocodilian Health (Wellehan)

WK-4

**Sea Turtles**
Natural History, Anatomy, Physiology, Behavior – (Flint)
Sea Turtle Disease – (Flint)

WK-5

**Invertebrates**
Overview of Invertebrate Taxonomy, Anatomy, and Physiology (Baker)
Invertebrate Disease Ecology (Behringer)

WK-6

**Fish**
Taxonomy, Anatomy and Physiology (Hill)
Fish Disease (Waltzek)
WK-7

**Cetaceans**
- Natural History, Anatomy, Physiology, Behavior – (Wells)
- Large Whales – (Pitchford)

WK-8

- Conservation – (Reid)
- Mortality – (Bonde)

WK-9

**Regulations, Permits & Management**
- Manatees & Cetaceans (Elsa Haubold)
- Health Assessments and Rehabilitation (Bonde)
- Unusual Mortality Events (Wells)

WK-10

**Pinnipeds**
- Anatomy, Physiology, Behavior and Health Issues – (TBA)
- Final Grant and Lit Review Papers are due
- Papers are handed back for student review/critique

WK-11

**Research & Techniques**
- Necropsy – (Costidis)
- Molecular Techniques – (Nollens)
- Field Techniques for Cetacean Research – (Wells)

WK-12

**Conservation Issues**
- Across Aquatic Species, overview of conservation issues class topics – (Larkin)
- Reviews and Critiques scores are due (graduate and undergraduate students)

WK-13

**Summary and Conclusions**

### IV. Course Materials

Reading material will be provided in PDF format through links on the Sakai E-learning site and needs to be reviewed before viewing the MediaSite lectures. MediaSite lectures will also be provided through links on the Sakai E-learning site. From the background reading material and MediaSite lectures provided, students will be asked to answer questions from a self test quiz, under the ‘Tests & Quizzes’ link. Within each module students may have related discussion questions for the electronic message board on the given topic or assignments, found under the ‘Discussions’ link. Homework within each module, found under the ‘Assignments’ link, 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. All students are expected to write a term paper. Graduate students will write a 5 page grant proposal on an aquatic animal related topic. After grants are handed in, graduate students will then be given proposals (without names or other identifiers) and asked to participate as a “Reviewer” and to evaluate/rank the grants. Undergraduate students will not be asked to write and review a grant proposal. Instead, undergraduates will be asked to write a 5 page review paper on an aquatic animal related topic of their choice and then be asked to critique two papers (without identifiers) from their peers.

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 and she has access to the Sakai class web page.

#### 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 learning-support@ufl.edu, ‘e-Learning Tutorial’ link to the left within Sakai, or call (352) 392-4357 - select option 2).

**V. Evaluation/ Grading/ Testing:**

**Feedback**

You will find feedback on your assignments in the same site where the homework directions are found, under the Assignments 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 Gradebook link.

Feedback on the quiz answers will be provided the day after quizzes are due. You can find this under the specific quiz link. Sakai grades the quizzes automatically. Homework and term paper grades will be based on TA and Professor assessments outlined in provided grading rubrics.

**For Graduate and Undergraduate, for-credit, students:**

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<tr>
<th>90%</th>
<th>Performance &amp; Knowledge of Subject Area</th>
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<tbody>
<tr>
<td></td>
<td>Ability to satisfactorily integrate reading material, discussions, and writing assignments as demonstrated</td>
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<tr>
<td>30%</td>
<td>Completing quizzes</td>
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<tr>
<td>30%</td>
<td>Homework assignments (equally weighted across modules) – includes critical review of a scientific paper, a power point presentation, discussion board postings etc… (Rubric point scales for each assignment are for grading and feedback. Differences in point scales do not reflect differing % to final grade between assignments.)</td>
</tr>
<tr>
<td>30%</td>
<td>Literature Review paper &amp; Review- undergraduates Grant proposal &amp; Review - graduate students</td>
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**10% Participation**

Participation in Elluminate Q&A sessions

**For CE students:**

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

Participation in Elluminate Q&A sessions

**Note** – Items completed past the due date will automatically be graded -10% as late. Points will continue to be removed over time past the due an additional -10% per day.
If there are problems and you find yourself falling behind, contact me ASAP. Notifying me after the fact will not add points back that have already been removed.

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.

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=adaa44500ea460a84f238e6b9a558f91d
This is a link to a website on avoiding plagiarism http://web.uflib.ufl.edu/msl/subjects/Physics/StudentPlagiarism.html
This is a link to APA formatting
http://owl.english.purdue.edu/owl/resource/560/01/

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.counsel.ufl.edu/

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: http://www.dso.ufl.edu/sccr/honorcodes/conductcode.php

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.