

## ***Marine Mammal Biology***

VME 6014: section 29793 (*UF students*); section 29794 (*non-UF students*), section 29795 (*Care & Conservation of Aquatic Animals Certificate students*)  
Online (asynchronous)  
Fall 2023

### ***Instructor:***

Jonathan "JC" Cowart, PhD

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Office hours by appointment only

### ***Course Description***

This is an intensive graduate-level online course designed to introduce students to a variety of marine mammal species including cetaceans, sirenians, pinnipeds, mustelids, and ursids. Each module will broadly explore a particular ecological, biological, or physiological topic related to the study of marine mammals, including biodiversity & life history, diving physiology, thermoregulation, foraging ecology, and reproduction as well as the many conservation and management issues faced by different marine mammal species. Each module will consist of multiple lectures, assigned readings, and an assignment and/or quiz.

***Course Pre-Requisites / Co-Requisites:*** *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), Zoology (examples – ZOO2203C, ZOO4926), Aquatic Sciences (examples – GLY3083C, FAS4932, ZOO4403C, VME4012), or instructor permission.*

### ***Course Objectives***

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

1. ***Identify*** and ***classify*** the major taxonomic groups of marine mammals
2. ***Examine*** the morphological and physiological adaptations evolved by marine mammals and ***explain*** their role in a marine mammals' ability to inhabit an aquatic environment.
3. ***Examine*** the biological and ecological relationships between marine mammals and the aquatic environments they inhabit.
4. ***Identify*** the major conservation issues faced by different marine mammal species and ***evaluate*** species specific susceptibility to particular threats.

### ***Materials and Supply Fees***

None

### ***Required Textbooks and Software***

There are no required textbooks for this course. All quiz questions will come from the information provided in the lectures, assigned readings, and supplemental materials. PDFs of assigned readings will be provided in each respective learning module.

### ***Recommended Materials***

Supplemental information may be necessary to enhance learning of the required material. Below are some *recommendations* for supplemental resources:

1. Encyclopedia of Marine Mammals – Wursig, Thewissen, and Kovacs
2. Marine Mammals: Evolutionary Biology – Berta, Sumich, and Kovacs

### ***Course Schedule***

This course is offered entirely in an asynchronous online format and relies primarily on recorded lectures, videos, and assigned readings (either from book chapters or primary scientific literature). Students are expected to work

independently through each module as they review each of the recorded lectures and assigned readings and complete assignments. Opportunities for class discussions and group assignments may be available throughout the course. To Access the course, please go to: <http://elearning.ufl.edu/> starting **August 23<sup>rd</sup> at 8am EST**, hit the e-Learning in Canvas button and log in with your Gator link username and password.

<i>Week</i>	<i>Topic/Module/Unit</i>	<i>Lecturers</i>	<i>SLO # Above</i>	<i>Instructional Hours</i>
<b>Week 1</b> Aug 23-27	<b><i>Taxonomy, Biodiversity, &amp; Life History Traits</i></b>	Cowart	1	3.0
<b>Week 2</b> Aug 28-Sep 03	<b><i>Evolution</i></b>	Uhen	1	3.0
<b>Week 3</b> Sep 04-10	<b><i>Anatomy / Physiology</i></b>	Reidenberg	2,3	3.0
<b>Week 4</b> Sep 11-17	<b><i>Thermoregulation</i></b>	Castellini	2,3	3.0
<b>Week 5</b> Sep 18-24	<b><i>Diving Physiology</i></b>	Fahlman & Davis	2,3	3.0
<b>Week 6</b> Sep 25-Oct 01	<b><i>Sensory Biology &amp; Acoustics</i></b>	Reidenberg	2,3	3.0
<b>Week 7</b> Oct 02-08	<b><i>Foraging Ecology</i></b>	Savoca	2,3	3.0
<b>Week 8</b> Oct 09-15	<b><i>Reproduction</i></b>	Cowart & Orbach	2,3	3.0
<b>Week 9</b> Oct 16-22	<b><i>Sociobiology / Behavior</i></b>	-	2,3	3.0
<b>Week 10</b> Oct 23-29	<b><i>Health &amp; Disease</i></b>	Jacob, Ardenete, Barratclough, & Harvey-Clark	2,3,4	3.0
<b>Week 11</b> Oct 30-Nov 05	<b><i>Management &amp; Research</i></b>	Baird, Barratclough, & Cate	2,3,4	3.0
<b>Weeks 12</b> Nov 06-12 <small>*Please note that this module includes observed holidays on Nov. 10 &amp; 11.</small>	<b><i>Stranding Investigations &amp; Necropsy</i></b>	Lovewell	4	3.0
<b>Weeks 13</b> Nov 13-19	<b><i>Conservation Issues I</i></b>	Jefferson	4	3.0
<b>Week 14</b> Nov 20-Dec 03 <small>*Please note that this module includes Thanksgiving Break (Nov 22-25)</small>	<b><i>Conservation Issues II</i></b>	-	4	3.0
<b>Week 15</b> Dec 04-06	<b><i>Course Wrap-Up</i></b>	-	-	0.0
		<b>Total</b>		<b>45.0</b>

### ***Attendance Policy, Class Expectations, and Make-Up Policy***

There is no attendance policy as this course is conducted entirely online in an asynchronous manner. Excused absences must be consistent with university policies in the [Graduate Catalog](#) and require appropriate documentation. Additional information can be found in [Attendance Policies](#).

All work should be conducted **independently** unless specified 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. Any assignment with a match of more than 15% will not be accepted. Where TurnItIn is used, you will have access to the report.

Requirements for assignments in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. Students are encouraged to reach out to Dr. Cowart as soon as possible if they have any issue submitting an assignment on time so that a viable solution can be determined. In general, submission of assignments past the scheduled due date/time will automatically receive a 10% reduction per day from the final grade. No late quiz submissions will be accepted without prior approval from Dr. Cowart. For quizzes, submission must be completed at least 10-15 minutes prior to the final due date/time for the system to recognize and process your submission. Failure to do so will result in the system giving you a zero (*so please don't wait until the last minute to take your quizzes!*).

### **Evaluation of Grades**

<b>Assignment</b>	<b>Total Points</b>	<b>Percentage of Final Grade</b>
Module Assignments	Variable	20%
Quizzes	Variable	30%
Grant Proposal	Variable	50%
<b>Total</b>		<b>100%</b>

### **Grading Policy**

<b>Percent</b>	<b>Grade</b>	<b>Grade Points</b>
94.0 – 100	A	4.00
90.0 – 93.9	A-	3.67
87.0 – 89.9	B+	3.33
84.0 – 86.9	B	3.00
80.0 – 83.9	B-	2.67
77.0 – 79.9	C+	2.33
74.0 – 76.9	C	2.00
70.0 – 73.9	C-	1.67
67.0 – 69.9	D+	1.33
64.0 – 66.9	D	1.00
61.0 – 63.9	D-	0.67
0 – 60.9	E	0.00

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)  
[Grades and Grading Policies](#)

### **Students Requiring Accommodations**

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). 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.

### **Course 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. [Click here for guidance on how to give feedback in a professional and respectful manner](#). 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 [ufl.bluera.com/ufl/](http://ufl.bluera.com/ufl/). [Summaries of course evaluation results are available to students here](#).

### **University Honesty Policy**

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### **Software Use**

All faculty, staff, and students 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. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### **Student Privacy**

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

### **Campus Resources:**

#### **Health and Wellness**

##### **U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**Counseling and Wellness Center:** [counseling.ufl.edu/cwc](http://counseling.ufl.edu/cwc), and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

##### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or [police.ufl.edu](http://police.ufl.edu).

#### **Academic Resources**

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu).

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling.

**Library Support**, Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

**Writing Studio**, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

**[Student Complaints Campus](#)**

**[On-Line Students Complaints](#)**