#### **Marine Mammal Biology and Conservation**

BIOL 454 / 508 or EVPP 419 (3.0 Credits)

Spring 2023 M 4:30 – 7:10 pm

Dr. Lorelei D. Crerar Email: lcrerar@gmu.edu

Office Hours: By appointment on any day except Monday.

**Available Text:**

An Introduction to Marine Mammal Biology and Conservation by ECM Parsons

Jones and Bartlett Learning (ISBN:978-0-7637-8344-0)

**Prerequisites:**

BIOL 309 or BIOL 449 or equivalent; or permission of instructor.

**Important Dates:**

Last day to add – January 30, 2023

Last day to drop with full tuition refund – February 6, 2023

Last day to drop with 50% tuition penalty – February 13, 2023

Unrestricted withdrawal period – February 14 to 27, 2023

Selective withdrawal period – February 28 to April 3, 2023

**Course Description, Goals and Objectives:**

Covers the evolution, biology, ecology, and behavior of marine mammals from polar bears and sea otters to whales and dolphins. Marine mammal conservation and policy is also a major component of the course; several, lecture sessions are devoted to the issue of whaling, threats to marine mammal populations, and recent conservation issues such as marine mammals and noise pollution.

By the end of this course, you should be a subject matter expert in your paper topic. Be sure you choose something very narrow. I will be approving all chosen topics.

**Honor Code:**

The integrity of the University community is affected by the individual choices made by each of us. Mason has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and simple principles to follow are that:

(1) all work submitted be your own;

(2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and

(3) if you are uncertain about the ground rules on an assignment, ask for clarification.

No grade is important enough to justify academic misconduct. Plagiarism means using the exact words, opinions, or information from another person without giving the person credit. Writers give credit through accepted documentation styles, such as parenthetical citation, footnotes, or endnotes. Paraphrased material must also be cited, using the journal Nature format. A simple listing of books or articles is not sufficient. Plagiarism is the equivalent of intellectual robbery and cannot be tolerated in the academic setting. My advice to you is to use Zotero to help you keep your citations in order. If you have any doubts about what constitutes plagiarism, please see me.

Mason is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously, and violations are treated gravely. In this class, when you are responsible for a task, you perform that task alone. When you rely on someone else’s work in an aspect of the performance of that task, you will give full credit. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

Some lecture slides, notes, or exercises used in this course may be the property of the textbook publisher or other third parties. All other course material, including but not limited to slides developed by the instructor(s), the syllabus, assignments, course notes, course recordings (whether audio or video) and examinations or quizzes are the property of the University or of the individual instructor who developed them. Students are free to use this material for study and learning, and for discussion with others, including those who may not be in this class, unless the instructor imposes more stringent requirements. Republishing or redistributing this material, including uploading it to web sites or linking to it through services like iTunes, violates the rights of the copyright holder and is prohibited. There are civil and criminal penalties for copyright violation. **Publishing or redistributing this material in a way that might give others an unfair advantage in this or future courses may subject you to penalties for academic misconduct.**

**Course Policies:**

All work is due either at the beginning of class in Blackboard or emailed to me by the start of class on the day it is due (only email with prior approval). **No late work** will be accepted. Some assignments are based on attendance. If you are **not present**, you may **not complete** that assignment. The only valid excuse is a medical excuse from a doctor. If you **miss an exam**, you will need to provide medical documentation, expect me to call the doctor’s office, to excuse your absence. You also need to notify me in advance of the exam time. No other absences will be excused.

**Disability Accommodations:**

If you have a documented learning disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Disability Services (SUB I, Rm. 4205; 993-2474; http://ds.gmu.edu) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

If you are a student with a disability and you need academic accommodations, please see me and contact Disability Services at 993-2474, http://ds.gmu.edu. All academic accommodations must be arranged through Disability Services.

**Diversity and Inclusion:**

As a Mason faculty member, I will keep diversity in mind throughout the semester. If English is your second language, you may wish to work closely with me on writing a paper. In this manner you can achieve the highest possible score on that assignment.

**Sexual Harassment, Sexual Misconduct, and Interpersonal Violence:**

As a faculty member and designated “Responsible Employee,” I am required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s [Title IX Coordinator](https://diversity.gmu.edu/sexual-misconduct) per [University Policy 1412](https://universitypolicy.gmu.edu/policies/reporting-of-clery-act-crimes-andor-prohibited-sexual-conduct/). If you wish to speak with someone confidentially, please contact the [Student Support and Advocacy Center](http://ssac.gmu.edu/) (703-380-1434), [Counseling and Psychological Services](https://caps.gmu.edu/) (703-993-2380), [Student Health Services](http://shs.gmu.edu/), or [Mason’s Title IX Coordinator](https://diversity.gmu.edu/sexual-misconduct) (703-993-8730; cde@gmu.edu).

**Privacy:**

Students must use their Mason email account to receive important University information, including communications related to this class. I cannot respond to messages sent from or send messages to a non-Mason email address.

**Undergraduate Course Repetition:**

There is a limit of three graded attempts for this course. A **W** does not count as a graded attempt. Please see AP. 1.3.4 in the University Catalog and consult with your academic advisor if you have any questions.

**Grading:**

Grades above 0.5 will be rounded up.  The Undergraduate Regular grading scale is:

|  |  |  |  |
| --- | --- | --- | --- |
| **Letter Grade** | **Percentage** | **Registrar’s Equivalent on a Scale of 0-4.0** | **Undergraduate Courses** |
| A+ | > 98 | 4.0 | Passing |
| A | 92.0-98.0 | 4.0 | Passing |
| A- | 90.0-91.99 | 3.67 | Passing |
| B+ | 88.0-89.99 | 3.33 | Passing |
| B | 82.0-87.99 | 3.00 | Passing |
| B- | 80.0-82.0 | 2.67 | Passing |
| C+ | 78.0-79.99 | 2.33 | Passing |
| C | 70.0-77.99 | 2.00 | Passing |
| D | 60.0-69.99 | 1.00 | Passing |
| F | 0-59.99 | 0.00 | Failing |

The Graduate Regular grading scale is:

|  |  |  |  |
| --- | --- | --- | --- |
| **Letter Grade** | **Percentage** | **Registrar’s Equivalent on a Scale of 0-4.0** | **Graduate Courses** |
| A+ | > 98 | 4.0 | Satisfactory/Passing |
| A | 92.0-98.0 | 4.0 | Satisfactory/Passing |
| A- | 90.0-91.99 | 3.67 | Satisfactory/Passing |
| B+ | 88.0-89.99 | 3.33 | Satisfactory/Passing |
| B | 82.0-87.99 | 3.00 | Satisfactory/Passing |
| B- | 80.0-82.0 | 2.67 | Satisfactory/Passing |
| C | 70.0-77.99 | 2.00 | Unsatisfactory/Passing |
| F | 0-69.99 | 0.00 | Unsatisfactory/Failing |

**Points Available\*\*:**

Three Exams 300 points

 Paper 100 points

 Paper Presentation 100 points

 Presentation Reviews 50 points

\*\*Other assignments may be added and final points for the class are sometimes higher than shown here.

**Exams:**

Three exams will be given worth 300 points of your grade. All exams will include a mixture of interpretation of diagrams, matching of terms/concepts, multiple choice and short essays. Many questions will be interpretative and analytical in nature. Each exam will stress the section covered immediately before the exam. **Missed exams will be counted as a zero unless there has been prearrangement with me.**  The exams will be closed notes, brain only exams.

**Paper and Presentation:**

You will be required to write a paper on a topic of your choice, which I will approve. The paper will be cited in the style of the journal *Nature* using Zotero. If you have not done this before, please seek help from me sooner rather than later. I will be delighted to review your paper before you turn it in. Your paper MUST be between 1800 and 2000 words.

Your final presentation will cover the information in your paper. You will create a short video (LESS than 5 minutes) describing your solution to the protection of your species. If you have questions, please ask me.

**Class Schedule:**

|  |  |  |
| --- | --- | --- |
| **Date** | **Topic** | **Chapter Readings** |
| January 23 | 1-What is a Marine Mammal? Marine Mammal Classification and Diversity Adaptations to the Marine Environment Underwater Sound | Chapter 1, 3, 4 and 5 |
| January 30 | 2-Order Carnivora –  Polar bears, sea otters and seals Ancient Organisms3-Order Carnivora – Polar Bears | Chapter 6 |
| February 6 | 4-Order Carnivora – Sea Otters | Chapter 7 |
| **February 13** | 5-Order Carnivora – Pinnipeds Otariidae, Phocidae, Odobenidae**Exam on Lectures 1-5** | Chapter 9**Exam will open at midnight on 2/13/2023 and close at 1159pm on 2/19/2023.** |
| February 20 | 6-Order Cetacea –  Whales, Ancient Organisms7-Mysticeti | Chapter 10 and 15 |
| February 27 | 7-Mysticeti (cont.) | Chapter 11 and 15 |
| March 6 | 8-Odontoceti  | Chapter 11 |
| **March 13** | **Spring Break** | **NO class** |
| March 20 | 9-Porpoises and Dolphins | Chapter 11 |
| March 27 | 10-Order Sirenia –  Sirenians, Ancient Organisms | Chapter 8 |
| April 3 | 11-Dugongidae and Hydrodamalidae 12-Trichechidae | Chapter 8 |
| April 10 | Video: Spy in the Pod**Exam on Lectures 6-12****MUST ATTEND CLASS TO GET POINTS!** | **Exam 2 will open at midnight on 4/11/2023 and close at 1159pm on 4/16/2023.** |
| April 17 | 13-Marine Mammal Protection14-Marine Mammal Tourism | Chapter 17Chapter 18 |
| April 24 | 15-Species Recovery Plans Humans and Marine Mammals | Chapter 13 **Paper Due (100 points)** |
| May 1 | Presentation Reviewing (50 points) | **Presentation (100 points) due before 430pm.** |
| January 23 | **Exam 3 (Lectures 13-15)**Must be taken during this time. | **4:30 – 7:10 pm (100 points)****Presentation Reviews Due** |