**BIOLOGY 393: COASTAL ORNITHOLOGY**

**Chincoteague Bay Field Station- Summer Term 2**

**Instructor: Dr. Nathan E. Thomas Email:** **nethomas@ship.edu**

**Meeting Time**

Due to the nature of this course, we will have meeting times that change every day. It is your responsibility to make sure you know when we are supposed to meet and what we will be doing during that time. In general, we will meet from Monday through Friday for the duration of this course.

**Books**

 **Required:**

Dunn, J. L., J. Alderfer. 2017. *National Geographic Field Guide to the Birds of North*

*America, 7th ed.* National Geographic. ISBN: 9781426218354

 **Recommended:**

Scott, G. 2010. *Essential Ornithology*. Oxford. ISBN: 0198569971

**Prerequisites**

 One year of introductory biology or consent of the instructor.

**Course Goals**

 This course is designed so that the student will achieve a strong understanding of a variety of aspects in ornithology with the strongest focus on field techniques, including identification and avian survey techniques. Material covered will include evolution, anatomy, physiology, behavior and ecology. A portion of the course will include an overview of the avian families of North America, especially those found in coastal regions along the mid-Atlantic seaboard. The field component for this course may include mist netting, census techniques and field identification. Emphasis will be placed on field research and a portion of the course will involve the development of a novel research idea in ornithology.

**Course Structure**

Each day will be split into three different sections; lecture topic discussion, lab identification, and field activities. During lecture I will talk about the topics shown in the Schedule of Activities below. Please be prepared to discuss these topics and have your own thoughts about the subject matter ready for inclusion in the lecture. Lectures will cover material in the text, but will also include outside material. Your lecture notes are of vital importance. Anything said in lecture could appear on an exam. You may with to bring your books to lecture, as we will often reference points made in the book and discuss them further.

**Species Accounts**

In addition to our normally covered lecture material we will regularly be using information found on our iPads. At the end of each day every student will choose a bird that we have seen and make a brief summary by reading about species details through the apps provided on their device. Sometime during the next day, likely while we are in the field or *en route*, every student will inform the others about the bird that they investigated the night before. This will provide more detailed information for every student about each bird that we see. Over the course of the semester we will cover many of the birds we see, but may not cover all of them.

**Project**

 Reading and familiarity of primary literature in ornithology are important in structuring a sound understanding of fundamental concepts. Each student is required to use a variety of sources, including primary literature, to generate a brief presentation for the class. The topic will be one group of coastal birds that you will investigate on your own. You are responsible for understanding when the birds use a coastal environment, what resources are used, their current conservation status and what the current and potential future major conservation threats are for each group as well as how to mitigate each. As part of this project you are expected to have field observations of your group of birds that you can incorporate into your presentation. These will be presentations that are approximately 15 minutes long with a few more minutes for questions. Presentations will be graded by your instructor as well as your peers. This project may be substituted for an alternative assignment depending upon class size, information will be provided by your instructor.

**Tentative Schedule of Activities**

This syllabus is approximate with regard to timing. We will almost certainly diverge from the information listed here and adjust the pace of the course, as well as the material, as necessary. If I go faster or slower than the schedule indicates, I will make an adjustment and only the information covered will be on each respective exam.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week Day** | **Topic** | **Reading** | **Laboratory Identification** | **Field** |
| Wk 1 Mon | Birding, Flight and Avian Evolution | 1, 2 | Anseriformes, Galliformes | Birding Etiquette, Bird Parts, Easy ID, Mist Nets |
| Wk 1 Tue | Finish Avian Evolution and Evolution of Flight | 2 | **Topo Quiz;** Gaviiformes, Podicipediformes, Procellariiformes, Suliformes, Pelecaniformes | Sunrise Assateague |
| Wk 1 Wed | Avian Physiology |  | Accipitriformes, Falconiformes, Gruiformes | AM Monitor |
| Wk 1 Thur | More Physiology and Foraging |  | Charadriiformes (Charadriidae, Haematopodidae, Recurvirostridae, Scolopacidae) | All Day Trip- Kiptopeke State Park |
| Wk 1 Fri | Energetics and Metabolism; Start Behavior and Vocalizations | 6 | **Quiz 1** |  |
| Wk 2 Mon | All Day Trip | 5, 6 | Charadriiformes (Laridae, Stercorariidae) | AM Wallops |
| Wk 2 Tue | Finsish Behavior and Vocalizations | 5, 6 | Columbiformes, Cuculiformes, Strigiformes, Caprimulgiformes, Apodiformes, Coraciiformes, Piciformes | AM/All Day Parker |
| Wk 2 Wed | **Exam 1** and Start Breeding Strategies |  | Passeriformes (Tyrannidae, Vireonidae, Corvidae, Alaudidae, Hirundinidae) | Warblers |
| Wk 2 Thur | Breeding and Breeding Systems | 4 | Passeriformes (Paridae, Sittidae, Certhiidae, Troglodytidae, Polioptilidae, Regulidae, Turdidae, Mimidae, Sturnidae, Motacillidae, Calcariidae) | **Field Exam** |
| Wk 2 Fri | Nests, Incubation and Parental Care |  | **Presentations** |  |
| Wk 3 Mon | Migration and Habitat Use | 5 | Passeriformes (Parulidae) | Shoreline |
| Wk 3 Tue | Ecology and Conservation | 3, 7 | Passeriformes (Emberizidae, Cardinalidae, Icteridae, Fringillidae, Passeridae) | **Field Exam** |
| Wk 3 Wed | **Exam 2** | 7 |  |  |
| Wk 3 Thur |  | 7 | **Quiz 2** | AM Monitor |
| Wk 3 Fri | Summary, Final Activity and Clean-up | 7 |  |  |

**Exam and Grading Policy**

The exams may include multiple choice, fill-in-the-blank, definitions, short answer, and essay questions. Lab exams will be fill-in-the-blank questions. Exams and quizzes will be given only at the scheduled times, but these dates may change. Any change to the schedule will be announced to the class. For exams, if you have any questions, they must be presented to me within two days of when the exams are returned. In addition, if you feel your answer was correct you may present this in writing, documenting the correctness of your answer. Discussions concerning your request will be made at an agreeable time outside of the scheduled class period. I will not debate the correctness of your answer in the classroom. You may see me after class or by appointment. All assignments are due at the start of the lecture or lab period on the due date or they are considered to be late. LATE WORK will lose 20% of the total points available for each day it is late. If you miss more than one lab/field activity, I will mark your final grade down 15% for each class missed. If you miss three or more class or lab periods you will receive an F for the course.

**Point Allocation in the Course**

|  |  |  |
| --- | --- | --- |
| **Assignment** | **Points** | **My Points** |
| Exam 1 | 100 |  |
| Exam 2 | 100 |  |
| Quiz 1 | 50 |  |
| Quiz 2 | 50 |  |
| Field Exam 1 | 25 |  |
| Field Exam 2 | 25 |  |
| Project/Presentation | 50 |  |
| **Total** | **400** |  |

**Approximate Grade Scale:** 90-100% = A, 80-89 = B, 70-79% = C, 60-69% = D, 59% or lower = F

 **I may use the full grading scale for final grades:** A, A-, B+, B, B-, C+, C, D, F.

**Miscellaneous course policies**

**Course completion policy:** To receive credit for this course you must complete the full course. If you are unable to complete the course for any reason (medical reasons included) you should withdraw from the course. If you do not complete the course and you do not withdraw you will receive an F as your final grade.

**Academic Honesty:** All work must be your own. Read and understand the SU Academic Dishonesty policies (www.ship.edu/~senate/AcademicPolicies\_000.swf). Cheating or plagiarism will result in an F for the course, and referral to the Dean of Students at your home institution.

**E-communications:**  I will use email and D2L regularly throughout the semester. Official SU policy is that students will use their SU provided e-mail accounts.

**Title IX:** Shippensburg University and its faculty are committed to assuring a safe and productive educational environment for all students.  In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator.  The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project.  Faculty members are obligated to report allegations of sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred.  Such reporting must be made to the Shippensburg University Police at 477-1444, the Department of Human Services (DHS) at 800-932-0313, and the University’s Office of the Vice President of Student Affairs at 477-1308.  Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence can be found at: [www.ship.edu/No\_More/Sexual\_Misconduct/Sexual\_Misconduct\_Information/](http://www.ship.edu/No_More/Sexual_Misconduct/Sexual_Misconduct_Information/)

**Your Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Presenter’s Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- | --- | --- | --- | --- |
|  | **0-2** | **3-4** | **5-6** | **7-8** | **Points** | **Comment(s)** |
| **Organization** | Audience cannot understand presentation because there is no sequence of information. | Audience has difficulty following presentation because student jumps around | Student presents information in logical sequence which audience can follow | Student presents information in logical, interesting sequence which audience can follow |  |  |
| **Subject knowledge** | Student does not have grasp of information; student cannot answer questions about subject | Student is uncomfortable with information and is able to answer only rudimentary questions. | Student is at ease with expected answers to most questions, but fails to elaborate | Student demonstrates full knowledge by answering all class questions with explanations and elaboration |  |  |
| **Graphics** | Student uses superfluous graphics or no graphics | Student occasionally uses graphics that rarely support text and presentation | Student’s graphics relate to text and presentation | Student’s graphics explain and reinforce screen text and presentation |  |  |
| **Mechanics** | Student’s presentation has four or more spelling errors and/or grammatical errors | Presentation has three misspellings and/or grammatical errors. | Presentation has no more than two misspellings and/or grammatical errors. | Presentation has no misspellings or grammatical errors |  |  |
| **Eye Contact** | Student reads all of presentation with no eye contact | Student occasionally uses eye contact, but still reads most of report | Student maintains eye contact most of the time but frequently returns to notes | Student maintains eye contact with audience, seldom returning to notes |  |  |
| **Elocution** | Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in the back of class to hear | Student’s voice is low. Student incorrectly pronounces terms. Audience members have difficulty hearing presentation | Student’s voice is clear. Student pronounces most words correctly. Most audience members can hear presentation. | Student uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation. |  |  |
|  |  |  |  | **Total Points:** |  |  |

Positive Comment(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Advice for improvement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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