1. Course information: title, number, credits, prerequisites, location, meeting time.

Course: Ecology and Management of Birds; WLF 425; 3 credits
Prerequisites: BIOL F271 Principles of Ecology, COMM F131X Fundamentals of Oral Communication (FOC)-Group Context, or COMM F141X FOC-Public Context, WLF F222 Principles and Techniques of Wildlife Management, or permission of instructor
Location/Time: Irving 1, room 103; Tue, Thu 9:45 am-11:15 am

2. Instructor (and if applicable, Teaching Assistant) information: name, office location, office hours, telephone, email.

Dan Rizzolo; Office Irving 1 Rm 307; office hours: by appointment; 474-6602; djrizzolo@alaska.edu

3. Course readings/materials: course textbook, author, publisher. Supplementary readings (indicate whether required or recommended) and any supplies required.

There is no suitable textbook that follows the content of this course well. Therefore, course materials will be taken from chapters from several avian ecology textbooks, peer reviewed journal articles, and published management plans (e.g., North American Waterfowl Management Plan, US Shorebird Conservation Plan). All course materials will be listed on the class syllabus and available in electronic format through eRES (http://eres.uaf.edu/eres) under course WLF425 and accessed using the course page password WLF425.

4. Course description: content of the course and how it fits into the broader curriculum; expected proficiencies required to undertake the course, if applicable. May include, and must be consistent with, catalog course description.

This course will examine the ecology of avian populations with a focus on harvest and habitat management for North American birds. Topics covered will include: distributions, life-history, population dynamics, and monitoring and research techniques, all in the context of species management. The course will proceed through 6 species groups (waterfowl, upland game birds, raptors, seabirds, shorebirds, and songbirds) and will address ecological attributes, conservation and management issues, status of North American populations, and current research and monitoring programs. This course requires a proficient background in ecology, a familiarity with the principles of wildlife management, and is most appropriate for advanced undergraduate students majoring in the natural sciences. I will start the course with an overview lecture on avian management issues and a review of the basics of population biology. We will then proceed through the species groups and review management plans for each group. A portion of the Thursday lecture time will be dedicated to reviewing and discussing a scientific article relevant to the current topic being covered in lecture. At these discussions, be prepared for an in-depth analysis of the reading material.

5. Course goals (more general) and Student Learning Outcomes (provide examples).

The major goal of this course is to provide students with an understanding of the status of bird populations in North America, how information on populations is obtained, and how specific research and monitoring methods relate to the specific ecology of the species of interest. This will be achieved through an understanding of avian ecology and how the principles of ecology are applied
to management practices for bird populations and habitats. This course will help students develop skills in critical thinking and synthesis. Concepts covered in this course will be linked to the process of adaptive management for developing, implementing, and evaluating management plans.

6. Instructional methods: describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conference, etc.).

The course will be a mix of lecture and discussion (2/3 lecture, 1/3 discussion). In lectures, I will use case studies to demonstrate how ecological principles are applied to avian management issues. Lecture material will be presented as PowerPoint presentations that will be posted on eRES following each lecture. The discussion part of the class has 2 components: 1) weekly discussions of journal articles I assign, and 2) an oral presentation.

Weekly discussions will be based on current scientific literature and will be student-lead. All students are expected to prepare and contribute equally to the discussion each week. To facilitate this, one student will be designated to lead the discussion each week, and discussion leaders will be determined at the start of the discussion each week by random selection with replacement (i.e., some students may be selected multiple times, while others not at all). Discussion leaders should give a brief summary of the article, and stimulate conversation with questions and critiques related to the article. All students come to each discussion prepared to be the discussion leader, having read the material carefully and with a list of questions and discussion points. The portion of the overall grade for the course related to participation in the weekly discussion will not be based on the discussion leader’s performance, but on each student’s contribution each week.

Each student will give a 15 minute oral presentation to the class that summarizes and critically evaluates an issue in avian management. The presentation should describe the specific problem, the methods used to evaluate and address the problem, and how well those methods served/are serving to meet management goals. There will be a 5 minute question and answer period at the end of each presentation.

Your presentation will be on a topic of your choosing. I expect you will do an exhaustive job of researching the topic. For most topics, this will require that you read and understand the content of 10+ scientific papers.

You will be graded based on your performance researching your topic and presenting your findings. I will use the following criteria for grading:

- knowledge of topic
- ability to synthesize material
- organization of presentation
- use of visual aids
- clarity

I encourage you to use PowerPoint as a visual aid in your presentation. However, a good presentation starts with the presenter, visual aids only enhance it.
7. Course calendar: a schedule (daily or weekly major topics or assignments). You may call the outline Tentative or Work in progress to allow modifications during the semester.

*Tentative Syllabus:*

19 Jan (R): Lessons from the Eskimo Curlew, survey of course topics (population biology, life history theory)

24 Jan (T): Waterfowl 1-Classification and ecology

26 Jan (R): Waterfowl 2-Monitoring methods

31 Jan (T): Waterfowl 3-Populations

02 Feb (R): Waterfowl 4-Adaptive management/discussion (Meixell 2009, Smith 1995)

07 Feb (T): Raptors 1-Classification and ecology (guest lecturer John Shook, ABR Inc.)

09 Feb (R): Raptors 2-Populations/discussion (guest lecturer Carol McIntyre, NPS)

14 Feb (T): Raptors 3-discussion Dugger et al. 2011/Van Lanen et al. 2011/ Hamer et al. 2007 (Carol McIntyre)(NB this discussion is on Tue and NOT Thu)

16 Feb (R): Upland game birds 1-Classification and ecology

21 Feb (T): Upland game birds 2-Populations

23 Feb (R): Upland game birds 3-discussion (Sandercock et al. 2011)

28 Feb (T): Upland game birds 4-Management

01 Mar (R): Shorebirds 1-Classification and ecology

06 Mar (T): Shorebirds 2-discussion (McCaffery et al. 2006)

08 Mar (R): MIDTERM EXAM

13 Mar (T): Spring break

15 Mar (R): Spring break

20 Mar (T): Shorebirds 3-Populations

22 Mar (R): Shorebirds 4-Management, discussion (Lanctot et al. 2008)

27 Mar (T): Seabirds 1-Classification and ecology

29 Mar (R): Seabirds 2-Seabirds & the Marine Environment

03 Apr (T): Seabirds 3-Management

05 Apr (R): Seabirds 4-discussion (Piatt et al. 2007, Votier et al. 2005)

10 Apr (T): Songbirds 1-Classification and ecology

12 Apr (R): Songbirds 2-Populations

17 Apr (T): Songbirds 3-Management


24 Apr (T): Presentations

26 Apr (R): Presentations

01 May (T): Presentations

03 May (R): Course synthesis/ Final exam review

08 May (T): FINAL EXAM

8. Course policies: specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

*Students are expected to attend each class. Attendance will not be recorded, but missing class will negatively impact your understanding of the material and performance on exams due to importance of lecture material in this course and the discussion component of the final grade. Grading will be based on a mid-term exam (100 points, 30%), a final exam (100 points, 30%),*
participation in class discussions (60 points, 18%), and an oral presentation (75 points, 22%).
Grading: A=90-100%, B=80-89%, C=70-79%, D=60-69%. Exam questions will use a mixture of
formats, including: short essay, fill-in-the-blank, and statement critiques. Students will be held to
the UAF Student Code of Conduct: http://www.uaf.edu/catalog/current/academics/regs3.html

10. Support services: describe the student support services (local and/or regional) appropriate for the
course. Not applicable.

11. Disabilities Services: The Office of Disability Services implements the Americans with Disabilities
Act (ADA), and insures that UAF students have equal access to the campus and course materials. State
that you “will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable
accommodations to students with disabilities.”