Title: Introduction to Analysis of Vertebrate Populations  
Credits: 1  
Prerequisites: Permission of the Instructor  
Location: TBD  
Meeting Time: 1 hour/day week TBD  
Course Type: in person  
Instructor: Mark Lindberg  
411 Irving I  
907-474-6598  
mslindberg@alaska.edu  
Office Hours: TBD  

Course Description: Introduction to sampling vertebrate populations, modeling their population dynamics and the implications for management. Focus will be on study design, model assumptions, estimation of population parameters, and population projections.

Readings/Material:  
- Program MARK a Gentle Introduction  
- Lecture Notes from WLF 625

Student Learning Outcome:  
- Students will be able to describe the designs used for capture-mark-recapture (CMR) studies and apply that understanding to a field studies  
- Students should be able to prepare an input file for analysis in program MARK or RMARK

Instructional Methods: Lecture and small group discussion

Course Calendar:  
Week 1 – Overview of Designs (Lindberg 2010)  
Week 2 – Survey Sampling and Experimental Design (WLF625 Lecture Notes)  
Week 3 – CMR Designs in program MARK (MARK Book Chap 1)  
Week 4 – Index and Detection Probability (WLF 625 Lecture Notes)  
Week 5 – Binomial Probability and Likelihood Theory (MARK Book Chap 2)  
Week 6 – Maximum Likelihood Estimation (WLF 625 Lecture Notes)  
Week 7 – Sampling and Process Variance (WLF 625 Lecture Notes)  
Week 8 – MARK input files (MARK Book Chap 2)  
Week 9 – Known Fate Models (MARK Book Chap 16)  
Week 10 – Nest Survival Models (MARK Book Chap 17)  
Week 11 – Goodness of Fit (MARK Book Chap 5)  
Week 12 – Linear Models (MARK Book Chap 6)
Week 13 – Comparing Groups (MARK Book Chap 7)
Week 14 – Using the Parameter Index Matrix
Week 15 – Summary

Grades

- Grade will be determined based on 5 assignments throughout the semester with equal weighting for each assignment
- A >90%
- B 89.9-80%
- C 79.9-70%
- D 69.9-60%
- F <60%
- “C” (including C+ and C-) indicates a satisfactory level of acquired knowledge and performance in completion of course requirements.
- C– (1.7) is the minimum acceptable grade that undergraduate students may receive for courses to count toward the major or minor degree requirements, or as a prerequisite for another course. A minimum grade of C (2.0), however, MAY be required by specific programs for prerequisite and/ or major / minor courses. Please consult specific program listings in the UAF Catalog.
- C– (1.7) is the minimum acceptable grade required for all Core (X) Courses.
- “D” (including D+ and D-) indicates a minimal level of acquired knowledge and minimal performance in completion of course requirements. This grade does not satisfy requirements for courses in the major, minor, Core, or graduate programs.

Explanation of NB/I/W Grades

This course adheres to the UAF regarding the granting of NB Grades. The NB grade is for use only in situations in which the instructor has No Basis upon which to assign a grade. In general, the NB grade will not be granted.

Your instructor follows the University of Alaska FairbanksIncomplete Grade Policy:
“The letter “I” (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, he has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I” grade.”

Successful, timely completion of this course depends on committing yourself early and maintaining your effort. Failure to submit assignments in a timely manner may result in faculty-initiated Withdrawal from the course, which can result in a W on your transcript.

Academic Integrity

As described by UAF, scholastic dishonesty constitutes a violation of the university rules and regulations and is punishable according to the procedures outlined by UAF. Scholastic dishonesty includes, but is not limited to, cheating on an exam, plagiarism, and collusion. Cheating includes providing answers to or taking answers from another student. Plagiarism includes use of another author’s words or arguments without attribution. Collusion includes unauthorized collaboration with another person in preparing
written work for fulfillment of any course requirement. Scholastic dishonesty is punishable by removal from the course and a grade of “F.” For more information go to Student Code of Conduct.

Instructor Response Time

This is the first time this course is being taught on-line so we appreciate your patience as we work out the kinks this semester. We will strive to respond to emails within 24 hours unless we otherwise note and we will attempt to return graded material in 48 hours, but no longer than a week.

How to Check Your Grades

To check your grades for assignments/quizzes and find comments from your instructor, click on the My Grades link in the sidebar menu. All assignments and any due dates are listed. If your instructor has left overall assessment comments, Click on the speech bubble icon to view overall comments and feedback. If the score is for a test or quiz, the title of the test is a link. Then click on the check mark or your score to see results and feedback.

If the score is for an assignment, the title of the assignment is a link and by clicking this link you’ll be taken to your submission, grade and comments.

If you see a green exclamation point, your assignment has not been graded yet.

Expectation of Student Effort

Students should expect to spend 2.5-4 hours per week on this class. Students are expected to complete the weekly assignments by their due dates. If circumstances arise that cause you to need extra time on any assignment(s), email your instructor for guidance. Extensions of due dates may be granted, but your instructor expects to be informed in advance if you are not able to submit your assignment on time. (Emergency situations will be dealt with as needed.) Students are expected to maintain a working backup plan to be implemented in the event of a computer malfunction or interruption of their normal Internet service during the course.

Student Protections and Services

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans’ services, rural student services, etc to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. As required, if I notice or am informed of certain types of misconduct, then I am required to report it to the appropriate authorities. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: www.uaf.edu/handbook

Support Services

Go to the Student Handbook (www.uaf.edu/handbook) for things like: academic advising, tutoring, library and academic support, disability services, computing and technology, veteran and military support, academic complaint and appeals, late withdrawals, “classroom” behavior expectations and more.
UAF Help Desk

Go to http://www.alaska.edu/oit/ to see about current network outages and technology news. For technical questions, contact the Help Desk at:

- e-mail at helpdesk@alaska.edu
- phone: 450.8300 (in the Fairbanks area) or 1.800.478.8226 (outside of Fairbanks)

Effective Communication

Students who have difficulties with oral presentations and/or writing are strongly encouraged to get help from:

- UAF Department of Communication’s Speaking Center (907.474.5470, speak@uaf.edu)
- UAF English’s Department’s Writing Center (907.474.5314, Gruening 8th floor)
- CTC’s Learning Center (604 Barnette st, 907.455.2860).

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