Submit original with signatures + 1 copy + electronic copy to UAF Governance. See http://www.uaf.edu/uafgov/faculty/cd for a complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:

Department: Biology and Wildlife
Prepared by: Mark Lindberg
Email Contact: mslindberg@alaska.edu

College/School: CNSM
Phone: 474-6598
Faculty Contact: same

1. ACTION DESIRED
   (CHECK ONE):
   Trial Course
   New Course [X]

2. COURSE IDENTIFICATION:
   Dept. WLF  Course #: 301  No. of Credits: 3

   Justify upper/lower division status & number of credits:
   Course is 301 level because it includes advanced topics about wildlife biology and conservation and it is an introduction for WLF410. The course includes a 3 hour computer lab and 2 hours of lecture/week.

   3. PROPOSED COURSE TITLE:
   Design of Wildlife Studies

4. CROSS LISTED?
   YES/NO
   Course #: [ ]
   Dept. [ ]
   If yes, [ ]
   (Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

5. STACKED?
   YES/NO
   Course #: [ ]
   Dept. [ ]
   If yes, [ ]

6. FREQUENCY OF OFFERING:
   Every Spring
   [Every or Alternate] Fall, Spring, Summer - or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (if approved) Spring 2011

8. COURSE FORMAT:
   NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

   COURSE FORMAT:
   (check one)
   Full semester

   OTHER FORMAT
   (specify)
   Mode of delivery
   (specify lecture, field trips, labs, etc)
   Lecture and lab.

9. CONTACT HOURS PER WEEK:
   2 LECTURE hours/week
   3 LAB hours/week
   PRACTICUM hours/week

   Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 1600 minutes of lab in a science course=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See http://www.uaf.edu/uafgov/faculty/cd/credits.html for more information on number of credits.

   OTHER HOURS (specify type)

10. COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):

   WLF301. Design of wildlife studies. Study designs for wildlife populations and their habitats. Probability theory, finite population sampling, capture-mark-recapture sampling, survey sampling, and research design will be examined.
through lectures, labs, and a term project.

11. **COURSE CLASSIFICATIONS:** (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

   H = Humanities  N = Natural Science  S = Social Sciences

   Will this course be used to fulfill a requirement for the baccalaureate core?  X YES  NO

   IF YES, check which core requirements it could be used to fulfill:
   O = Oral Intensive, W = Writing Intensive, Natural Science, Format 6 X

12. **COURSE REPEATABILITY:**
   Is this course repeatable for credit?  X NO

   Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

   How many times may the course be repeated for credit?  TIMES

   If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course? CREDITS

13. **GRADING SYSTEM:**

   LETTER:  X  PASS/FAIL: 

14. **PREREQUISITES**

   WLF101, W1201, MATH107X or MATH161X, or permission of the instructor

   These will be required before the student is allowed to enroll in the course.

   **RECOMMENDED**

   STAT 200 or 300

   Classes, etc. that student is strongly encouraged to complete prior to this course.

15. **SPECIAL_RESTRICTIONS, CONDITIONS**

16. **PROPOSED COURSE FEES**

   Has a memo been submitted through your dean to the Provost & VCAS for fee approval? Yes/No

17. **PREVIOUS HISTORY**

   Has the course been offered as special topics or trial course previously? Yes/No

   If yes, give semester, year, course #, etc.:

18. **ESTIMATED IMPACT**

   WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

   None

19. **LIBRARY COLLECTIONS**

   Have you contacted the library collection development officer (ffk1j@uaf.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

   No  X  Yes 

   This course includes concepts that are covered in our
20. **IMPACTS ON PROGRAMS/DEPTS**

What programs/departments will be affected by this proposed action? Include information on the Programs/Departments contacted (e.g., email, memo).

May affect course enrollment in resources management (SNRAS) and math and statistics. I contacted and discussed this course with John Rhodes in math and statistics and Susan Todd in resources management.

21. **POSITIVE AND NEGATIVE IMPACTS**

Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

Students will have a more logical sequence of topics in the wildlife core classes. These may mean reduced enrollment in stats402, but few of our students were electing this course when we allowed it as an alternative to stat401, so we think impacts on 402 will be minimal.

**JUSTIFICATION FOR ACTION REQUESTED**

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

Study design and statistical skills in general are essential to our graduates. We already require that our majors take stat 200 or 300 and stat 401. None of these classes specifically cover study design. We could require students to take stat402, scientific sampling, but this would compete with stat401 and our analysis class, wlf410. In the past when stat402 was offered as elective, few students selected this as an alternative to stat401. Furthermore, some of our majors are ill-prepared for math and statistics and some study design concepts are specific to our field. By offering a design class in our discipline, we can ease student difficulties by using examples common to our field and we can also more fully develop concepts that are specific to our discipline.

This new course is being proposed in conjunction with a proposed change to wlf201 and wlf303. Generally speaking, design concepts that were taught in 201 will be moved to 301 and field techniques that were emphasized in 303 will be incorporated into 201. Wlf201 will be expanded from 3 to 4 credits to now include concepts that were previously taught in 303, and 303 will be canceled. Overall, we think this would bring a more logical flow to our curriculum with concepts and techniques developed early (wlf101, revised 201), data collection skills developed in 301, and analysis and synthesis skills emphasized in stat401 and wlf410.
APPROVALS:

Signature, Chair, Program/Department of: ___________________________ Date: 25 March 2010

Signature, Chair, College/School Curriculum Council for: CNSM Date: 26 Mar 10

Signature, Dean, College/School of: CNSM Date: April 7, 2010

Signature of Provost (if applicable)

Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

Signature, Chair, UAF Faculty Senate Curriculum Review Committee Date: ___________________________

ADDITIONAL SIGNATURES: (If required)

Signature, Chair, Program/Department of: ___________________________ Date: __________________________

Signature, Chair, College/School Curriculum Council for: ___________________________ Date: __________________________

Signature, Dean, College/School of: ___________________________ Date: __________________________
WLF 301 – Design of Wildlife Studies
3 Credits
Prerequisites: WLF101, WLF201, Math 107X or Math 161X; or permission of the instructor
Meeting place/time: lecture MW for 1 hour each, place and time TBD, lab Irving I, room 303, T
for 3 hours
Instructor: Mark Lindberg, 411 Irving I, x6598, mslindberg@alaska.edu
TA and office hours: TBA
Additional Reading Available through ERES
Description: Study designs for wildlife populations and their habitats. Probability theory, finite
population sampling, capture-mark-recapture sampling, survey sampling, and research design
will be examined through lectures, labs, and a term project.
Goals, Learning Outcomes, and Methods: The goal of this course is to expose students to a
broad range of fundamental concepts in statistical inference in wildlife ecology. Students will
develop skills need to complete a basic study design and preliminary analysis of data. Lectures
will use examples in wildlife ecology and emphasize application to wildlife management.
Computer exercises will expose students to common software used to complete analysis.
Tentative Calendar:
Week 1: A basis for inference, types of data
Week 2: Probability Theory
Week 3: Sampling Designs I: Measures of Central Tendency/Precision
Week 4: Sampling Designs II: Replication, Randomization, and Stratification
Week 5: Advanced Sampling Designs
Week 6: Indices and Census
Week 7: Detection Probability
Week 8: Estimation, Maximum Likelihood
Week 9: Distance Sampling
Week 10: Capture-Mark-Recapture Sampling
Week 11: Habitat Sampling
Week 12: Research Design I
Week 13: Research Design II
Week 14: Hypothesis Testing and Information Theory

Policies:
Class participation and attendance are a fundamental component of this class and will constitute
10% of your grade. You will lose 25% of the possible points for each day an assignment is late.
Make-up exams will only be provided if prior arrangements are made. Plagiarism and cheating
will not be tolerated

Evaluation:
Homework assignments - 25%
Exams (2) - 20% each
Term Project - 25%
Class Attendance/Arrival Time and Participation - 10%
Grades will be based on a straight percentage >89% A, >79% B, >69% C, and >59% D.

Support Services:
Disability Services: I will work with the Office of Disabilities Services (203 WHIT, 474-7043)
to provide reasonable accommodation to students with disabilities.