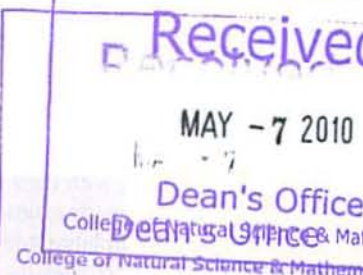


Submit originals and two copies and electronic copy to Governance/Faculty Senate Office
See <http://www.uaf.edu/uafgov/faculty/cd> for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

SUBMITTED BY:

Department	Biology and Wildlife	College/School	CNSM
Prepared by	Christine Hunter and Mark Lindberg	Phone	Hunter x6743 Lindberg x6598
Email Contact	Christine.hunter@alaska.edu mslindberg@alaska.edu	Faculty Contact	



1. CURRENT COURSE IDENTIFICATION:

Dept **WLF** Course # **625** No. of Credits **3**

COURSE TITLE **Analysis of Vertebrate Populations Survival and Movement**

2. ACTION DESIRED:

Change Course ☒ If Change, indicate below what changes are being requested. Drop Course ☐

NUMBER		TITLE	<input checked="" type="checkbox"/>	DESCRIPTION	<input checked="" type="checkbox"/>
PREREQUISITES				FREQUENCY OF OFFERING	
CREDITS (including credit distribution)	<input checked="" type="checkbox"/>			COURSE CLASSIFICATION	
CROSS-LISTING		Dept.		(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)	
STACKING (400/600)		Dept.		Course #	
OTHER (please specify)					

3. 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 all that apply) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☒ 6 weeks to full semester

OTHER FORMAT (specify all that apply) _____

Mode of delivery (specify lecture, field trips, labs, etc) **Lecture and Lab**

4. 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? ☐ YES ☐ NO

IF YES, check which core requirements it could be used to fulfill:
O = Oral Intensive, Format 6 ☐ W = Writing Intensive, Format 7 ☐ Natural Science, Format 8 ☐

5. COURSE REPEATABILITY:

Is this course repeatable for credit? ☐ YES ☒ 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

6. CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG: including dept., number, title and credits

WLF F625 Analysis of Vertebrate Population Survival and Movement, 3 credits, Offered Spring Odd-numbered Years

Contemporary methods of estimation of fundamental population parameters, survival and movement, with their implication for management. Focus will be on assumptions and methodology of estimation techniques. State-of-the-art computer applications will be employed in laboratory exercises of actual and simulated data. Prerequisites: BIOL 271, STAT 401. (Cross-listed with FISH F625). (2+3)

7. COMPLETE CATALOG DESCRIPTION AS IT WILL APPEAR WITH THESE CHANGES: (Underline new wording strike through old wording and use complete catalog format including dept., number, title, credits and cross-listed and stacked.) PLEASE SUBMIT NEW COURSE SYLLABUS. For stacked courses the syllabus must clearly indicate differences in required work and evaluation for students at different levels.

WLF F625 Population Dynamics of Vertebrates, 4 credits, Offered Spring Odd-numbered Years

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. State-of-the-art computer applications will be employed in laboratory exercises of actual and simulated data. Prerequisites: BIOL 271, STAT 401. (Cross-listed with FISH F625). (3+3)

Deleted: Analysis

Deleted: Population Survival and Movement

Deleted: 3

Deleted: estimation of fundamental population parameters, survival and movement,

Deleted: and

Deleted: with

Deleted: their

Deleted: and methodology of

Deleted: techniques

Deleted: 2

8. IS THIS COURSE CURRENTLY CROSS-LISTED?

YES/NO ☒ YES ☐ NO

If Yes, DEPT

NUMBER

(Requires written notification of each department and dean involved. Attach a copy of written notification.)

9. GRADING SYSTEM:

LETTER: ☒ LETTER ☐ PASS/FAIL: ☐

PASS/FAIL: ☐

10. ESTIMATED IMPACT

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

This change will allow us to capitalize on the complementary skills of faculty. We could offer separate courses, but presenting the material in a single course will allow us to build on material throughout the semester. Students will receive a better overall understanding of the context for and what can be achieved in analysis of vertebrate populations.

11. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (lflklj@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 ☒ Yes ☐

12. 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)

Impacts will be for our department and possibly for fisheries where the course is cross-listed. However, the changes to the course content are minor enough that we didn't contact fisheries.

13. POSITIVE AND NEGATIVE IMPACTS

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


Again, we think students will benefit by having complimentary material presented in a single class rather than 2 separate classes presented at different times.

14. 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. If you ask for a change in # of credits, explain why; are you increasing the amount of material covered in the class? If you drop a prerequisite, is it because the material is covered elsewhere? If course is changing to stacked (400/600), explain higher level of effort and performance required on part of students earning graduate credit. Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the course is not compromised as a result.

We are requesting a name change to reflect the broader content of the class. Similarly, we are requesting an increase in the number of credits because we are covering most of the material in a single class that we would normally cover if we taught this material in 2 separate 3 credit classes. By combining this material in a single class, we can more efficiently cover the material with a more synthetic approach. We also think that students would most benefit if they were exposed to the range of material on this topic, which they might not be if they only took 1 of the classes if this material was offered in separate classes.

APPROVALS:

 **Perry S. Barboza** Date 26 Apr / 2010
Signature, Chair, Program/Department of: **Chair, Wildlife Program**

 Date 3 May 2010
Signature, Chair, College/School Curriculum Council for: **CNSM**

John D Craven for PL Date 7 May 2010
Signature, Dean, College/School of:

 Date
Signature of Provost (if applicable)

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

At what point in a curriculum change should the course number be altered?
JDC.

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

<div></div>	Date	<div></div>
Signature, Chair, UAF Faculty Senate Curriculum Review or Graduate Academic & Advisory Committee		

ADDITIONAL SIGNATURES: (If required)

<div></div>	Date	<div></div>
Signature, Chair, Program/Department of: <div></div>		

<div></div>	Date	<div></div>
Signature, Chair, College/School Curriculum Council for: <div></div>		

<div></div>	Date	<div></div>
Signature, Dean, College/School of: <div></div>		

ATTACH COMPLETE SYLLABUS (as part of this application).

Note: The guidelines are online: <http://www.uaf.edu/uafgov/faculty/cd/syllabus.html>

The department and campus wide curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course change will be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES

During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course Information:

- ☐ Title, ☐ number, ☐ credits, ☐ prerequisites, ☐ location, ☐ meeting time
(make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) Information:

- ☐ Name, ☐ office location, ☐ office hours, ☐ telephone, ☐ email address.

3. Course readings/materials:

- ☐ Course textbook title, ☐ author, ☐ edition/publisher.
- ☐ Supplementary readings (indicate whether ☐ required or ☐ recommended) and
- ☐ any supplies required.

4. Course description:

- ☐ Content of the course and how it fits into the broader curriculum;
- ☐ Expected proficiencies required to undertake the course, if applicable.
- ☐ Inclusion of catalog description is *strongly* recommended, and
- ☐ Description in syllabus must be consistent with catalog course description.

5. ☐ Course Goals (general), and (see #6)

6. ☐ Student Learning Outcomes (more specific)

7. 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 conferencing, etc.).

8. Course calendar:

- ☐ A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g. it is not adequate to say "lab". Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:

- ☐ Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:

- ☐ Specify how students will be evaluated, ☐ what factors will be included, ☐ their relative value, and
- ☐ how they will be tabulated into grades (on a curve, absolute scores, etc.)

11. Support Services:

- ☐ Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services: NOTE UPDATED ADDRESS AND PHONE NUMBER BELOW

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 (208 WHIT, 474-5655) to provide reasonable accommodation to students with disabilities."

WLF F625 Population Dynamics of Vertebrates, 4 credits, Offered Spring Odd-numbered Years

Sampling vertebrate populations and modeling their population dynamics with implication for management. Focus will be on study design, model assumptions, estimation of population parameters, and population projections. State-of-the-art computer applications will be employed in laboratory exercises of actual and simulated data. Prerequisites: BIOL 271, STAT 401. (Cross-listed with FISH F625). (3+3)

Meeting place/time: lecture/lab MW for 3 hour each, Irving I, room 303

Instructors:

Christine Hunter

Office: 415A Irving I, 907.474.6743

Christine.hunter@alaska.edu

Mark Lindberg

Office 411 Irving I, 907.474.6598

mrlindberg@alaska.edu

Text:

Williams, Nichols, and Conroy 2001. Analysis and Management of Animal Populations. Analysis and Management of Animal Populations. Academic Press. ISBN 0-12-754406-2.

Caswell, H. 2000. Matrix Population Models: construction, analysis and interpretation. Sinauer Associates. ISBN 978-0878930968

Course goals and learning outcomes:

Provide students with broad exposure to the theory and concepts for modeling dynamics of vertebrate populations. By the end of the course, students will have an extensive understanding of approaches available for modeling population ecology, they will be able to use tools necessary to complete analysis, and they will have sufficient knowledge to appropriately interpret results. This course will provide skills essential for completing population assessments required in many professional job appointments.

Instructional Methods

Lectures with material posted on blackboard or the www and hands-on labs using actual or simulated data sets.

Course Calendar

Week 1: Fundamentals of Population Ecology

Week 2: Sampling and Probability Theory/ Maximum Likelihood Estimation

Week 3: Survey of Approaches for Capture-Mark-Recapture Studies

Week 4: Generalized Linear Models/Information Theory

Week 5: Abundance Estimation

Week 6: Survival and Movement

Week 7: Occupancy Modeling
Week 8: Unstructured Population Models
Week 9: Age and Stage based Population Models
Week 10: Perturbation Analyses
Week 11: Environmental Stochasticity
Week 12: Demographic Stochasticity
Week 13: Density Dependence
Week 14: Metapopulation Models

Policies:

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 - 50%

Exams (4) - 50%

Grades will be based on a straight percentage >89% A, >79% B, >69% C, and >59% D.

Support Services:

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