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PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR)

SUBMITTED BY:

Department	Biology & Wildlife	College/School	CNSM
Prepared by	Kris Hundertmark	Phone	474-7159
Email Contact	khundert@alaska.edu	Faculty Contact	Kris Hundertmark

See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

PROGRAM IDENTIFICATION:

DEGREE PROGRAM	Wildlife Biology and Conservation
Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.)	B.S.

A. CHANGE IN DEGREE REQUIREMENTS: (Brief statement of program/degree changes and objectives)

Removing a course (WLF F460O/2) from required course list due to loss of teaching expertise within the faculty. Modifying other requirements to maintain consistency with requirements for certification of graduates by The Wildlife Society. Including a newly offered course (NRM F403W,O) as a potential elective. Replacing one course (WLF F460O/2) in minor requirements with another (WLF F322W) due to loss of teaching expertise in program. Also correcting a typo (WLF F420O should be WLF F425O) and removing the asterisk after "Minor."

B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

Major -- B.S. degree

1. Complete the general university requirements. (See p. 127. As part of the core curriculum requirements, complete COMM F141X.)
2. Complete the B.S. degree requirements (page 132).
3. Complete the following program (major) requirements:*
 - a. BIOL F115X--Fundamentals of Biology I***--4 credits
 BIOL F116X--Fundamentals of Biology II***--4 credits
 BIOL F239--Introduction to Plant Biology--4 credits
 BIOL F260--Principles of Genetics--4 credits
 BIOL F310--Animal Physiology--4 credits
 BIOL F331--Systematic Botany (4)
 or BIOL F488--Arctic Vegetation Ecology: Geobotany--3 credits
 BIOL F371--Principles of Ecology--4 credits
 ENGL F314W,O/2--Technical Writing (3)
 or ENGL F414W--Research Writing (3)--3 credits
 WLF F101--Survey of Wildlife Science--1.5 credits
 WLF F301--Design of Wildlife Studies--3 credits
 WLF F322W--Principles and Techniques of Wildlife Management--3 credits
 WLF F410--Wildlife Populations and Their Management--3 credits
 WLF F460O/2--Wildlife Nutrition--4 credits
 - b. Complete at least one of the following:
 BIOL F471--Population Ecology--3 credits
 WLF F305--Wildlife Diseases--3 credits
 WLF F433--Conservation Genetics--3 credits
 WLF F469O--Landscape Ecology and Wildlife Habitat--3 credits
 - c. Complete the following:
 CHEM F105X--General Chemistry**--4 credits
 CHEM F106X--General Chemistry**--4 credits
 Math F251--Calculus (4)**

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College of Natural Science & Mathematics

or MATH F232X--Calculus for Life Sciences (3)**--3-4 credits
PHYS 103X--College Physics (4)
or GEOS F101X--The Dynamics of Earth (4)
or NRM F380W--Soils and the Environment (3)--3-4 credits
STAT F200X--Elementary Probability and Statistics (3)**
or STAT F300--Statistics (3)**--3 credits
STAT F401--Regression and Analysis of Variance--4 credits

- d. Complete at least one from each of the following pairs:
WLF F420O--Ecology and Management of Birds (3)
or BIOL F426W,O/2--Ornithology (3)--3 credits
WLF F421--Ecology and Management of Large Mammals (3)
or BIOL F425--Mammalogy (3)--3 credits
- e. Complete 2 of the following:*
- NRM F204--Public Lands Law and Policy--3 credits
ECON F235--Introduction to Natural Resource Economics--3 credits
NRM F407--Environmental Law--3 credits
HIST F411--Environmental History--3 credits
PS F447--Environmental Politics--3 credits
- f. Complete at least two additional courses at the F300 level or higher (3 or 4 credits) in biology, wildlife biology, fisheries or natural resources management.*--6-8 credits

4. Minimum credits required--120 credits

* *Students must earn a C- grade or better in each course.*

** *Satisfies a core requirement.*

*** *Satisfies a B.S. degree requirement.*

Note: B.S. degree candidates are strongly urged to obtain work experience in wildlife-related positions with public resource agencies or private firms. Faculty members can help students contact potential employers.

Requirements for biology teachers (grades 7-12)

1. Complete all the requirements of the wildlife biology B.S. degree
2. All prospective biology teachers must complete the following:
BIOL F342--Microbiology--4 credits
BIOL F481--Principles of Evolution--4 credits
BIOL F303--Principles of Metabolism and Biochemistry (4)
or CHEM F321 and CHEM F325--Organic chemistry--4-7 credits
3. All prospective science teachers must complete the following:
PHIL F481--Philosophy of Science (3)--3 credits

** We strongly recommend that prospective secondary science teachers seek advising from the UAF School of Education early in your undergraduate degree program, so that you can be appropriately advised of the State of Alaska requirements for teacher licensure. You will apply for admission to the UAF School of Education's postbaccalaureate teacher preparation program, a one-year intensive program, during your senior year. Above requirements apply to all candidates who apply to the UAF School of Education Spring 2006 or later for licensure in biology.*

Minor*

1. Complete the following:
WLF F301--Design of Wildlife Studies--3 credits
WLF F410--Wildlife Populations and Their Management--3 credits
WLF F460O/2--Wildlife Nutrition--4 credits
Approved biology and wildlife electives*--6 credits

2. Minimum credits required--15 credits

**Only biology or wildlife electives that are not required for the student's major.*

Note: Prerequisites for required courses include BIOL F115X-116X, BIOL F371, BIOL F310, STAT F200X or F300, and WLF F322W. Depending upon a student's major, some of these prerequisites may satisfy the 6 elective credits in biology and wildlife required for this minor.

C. PROPOSED REQUIREMENTS AS IT WILL APPEAR IN THE CATALOG WITH THESE CHANGES:
(Underline new wording ~~strike through old wording~~ and use complete catalog format)

Major -- B.S. degree

1. Complete the general university requirements. (See p. 127. As part of the core curriculum requirements, complete COMM F141X.)
2. Complete the B.S. degree requirements (page 132).
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ENGL F314W,O/2--Technical Writing (3)
or ENGL F414W--Research Writing (3)--3 credits
WLF F101--Survey of Wildlife Science--1.5 credits
WLF F301--Design of Wildlife Studies--3 credits
WLF F322W--Principles and Techniques of Wildlife Management--3 credits
WLF F410--Wildlife Populations and Their Management--3 credits
~~WLF F4600/2--Wildlife Nutrition--4 credits~~ *as long as credits add up should be ok.*
 - b. Complete at least one of the following:
BIOL F471--Population Ecology--3 credits
WLF F305--Wildlife Diseases--3 credits
WLF F433--Conservation Genetics--3 credits
WLF F4690--Landscape Ecology and Wildlife Habitat--3 credits
~~WLF F4600/2--Wildlife Nutrition--4 credits~~
 - c. Complete the following:
CHEM F105X--General Chemistry***--4 credits
CHEM F106X--General Chemistry***--4 credits
Math F251--Calculus (4)**
or MATH F232X--Calculus for Life Sciences (3)**--~~3~~4 credits
PHYS 103X--College Physics (4)
or GEOS F101X--The Dynamics of Earth (4)
or NRM F380W--Soils and the Environment (3)--~~3~~4 credits
STAT F200X--Elementary Probability and Statistics (3)***
or STAT F300--Statistics (3)***--3 credits
STAT F401--Regression and Analysis of Variance--4 credits
 - d. Complete at least ~~one from each of the following pairs~~ three of four:
WLF ~~F4200~~F4250--Ecology and Management of Birds--~~3~~3 credits

~~or BIOL F426W, O/2--Ornithology (3)~~
~~BIOL F426W, O/2--Ornithology--3 credits~~
WLF F421--Ecology and Management of Large Mammals ~~(3)~~--3 credits ✓
~~or BIOL F425--Mammalogy (3)--3 credits~~
~~BIOL F425--Mammalogy--3 credits~~

- e. Complete 2 of the following:*
- NRM F204--Public Lands Law and Policy--3 credits
 - ECON F235--Introduction to Natural Resource Economics--3 credits
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 - HIST F411--Environmental History--3 credits
 - PS F447--Environmental Politics--3 credits
 - NRM F403W, O--Environmental Decision Making--3 credits
- f. Complete at least two additional courses at the F300 level or higher (3 or 4 credits) in biology, wildlife biology, fisheries or natural resources management.*--6-8 credits
4. Minimum credits required--120 credits
- * *Students must earn a C- grade or better in each course.*
- ** *Satisfies a core requirement.*
- *** *Satisfies a B.S. degree requirement.*

Note: B.S. degree candidates are strongly urged to obtain work experience in wildlife-related positions with public resource agencies or private firms. Faculty members can help students contact potential employers.

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Minor*

1. Complete the following:
 - WLF F301--Design of Wildlife Studies--3 credits
 - WLF F322W--Principles and Techniques of Wildlife Management--3 credits
 - WLF F410--Wildlife Populations and Their Management--3 credits
 - ~~WLF F460O/2--Wildlife Nutrition--4 credits~~
 - Approved biology and wildlife electives*--6 credits
2. Minimum credits required--15 credits

**Only biology or wildlife electives that are not required for the student's major.*

Note: Prerequisites for required courses include BIOL F115X-116X, BIOL F371, BIOL F310, and STAT F200X or F300, ~~and WLF F322W~~. Depending upon a student's major, some of these prerequisites may satisfy the 6 elective credits in biology and wildlife required for this minor.

ask for clarification - what does this mean? are these requirements? they are if they have to take these and the minor requirements.

D. ESTIMATED IMPACT

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

No impact on budget, or facilities/space. Some faculty may see increased enrollment in their courses as students seek alternatives to WLF 460O/2.

E. 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)

No programs/departments will be affected by this action.

F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:

Description of the student learning outcomes assessment process.)

This is a relatively minor change in required courses that will not significantly affect our assessment process for student learning outcomes for the program. As WLF F460 is an O/2 course, however, students will have to be assessed for oral communication skills in another course, such as BIOL F426W,O/2 or WLF F425O (students must take either one or both of those classes under the proposed curriculum) or WLF F469O or NRM F403W,O (electives that can qualify as required courses). Our current assessment process is attached.

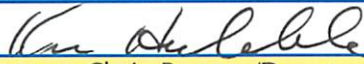

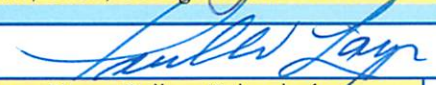
JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize program/degree change 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 drop a course, is it because the material is covered elsewhere? 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 program is not compromised as a result.

This action is being taken because we lost a faculty member who was the only one who had the expertise to teach Wildlife Nutrition (WLF F460O/2) and he may not be replaced soon. We therefore had to remove that course from our list of required courses for the Wildlife Biology and Conservation B.S. degree and the Wildlife Biology and Conservation minor. The minor program was modified by adding Principles and Techniques of Wildlife Management (WLF F322W) as a replacement course, which actually makes the minor more comprehensive. For the major, we added an additional 400-level course in the ecology and management of either birds or mammals (student's choice) as a replacement. WLF F460O/2 was placed on a "choose one of the following courses" list so that if we hire another physiological ecologist the course will still be a part of the program. We also took this opportunity to add a potential elective course in wildlife law and policy (NRM F403W,O—Environmental Decision Making) that is newly offered at the university. Under our current curriculum, graduates will have taken a minimum of 113.5 required credits with a minimum of 46 credits in upper-division courses whereas under the proposed curriculum they will have taken a minimum of

112.5 required credits with a minimum of 45 credits in upper-division courses. Moreover, our curriculum still allows our graduates to meet the academic requirements to become certified wildlife biologists by The Wildlife Society, the primary professional organization of wildlife managers, researchers, and educators. Therefore, we believe that the quality of the program is not compromised as a result of these changes.

APPROVALS: SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

	Date	9/21/15
Signature, Chair, Program/Department of:	Wildlife Biology & Conservation	
	Date	10-1-15
Signature, Chair, College/School Curriculum Council for:	CNSM	
	Date	10/2/15
Signature, Dean, College/School of:	Wildlife CNSM	

CHAIR SIGNATURE OBTAINED FOLLOWING APPROVAL BY FACULTY SENATE COMMITTEE

	Date	
Signature, Chair, UAF Faculty Senate		
___Curriculum Review Committee		
___Graduate Academic and Advisory Committee		

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment Plan
BS Wildlife Biology and Conservation

Department of Biology and Wildlife, College of Natural Sciences and Mathematics

Date: 1 November 2014

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
<p>MISSION STATEMENT: We give students an education in the biology of animals that includes an understanding of the structure and function of individual organisms, the interactions among populations and communities of animals, plants, people and their environment, and the principles of monitoring and managing animals and their habitats.</p>	<p>Graduates in wildlife biology should demonstrate a broad knowledge of the biology of animals that includes an understanding of the structure and function of individual organisms, the interactions among populations and communities of animals, plants, people and their environment, and the principles of monitoring and managing animals and their habitats.</p>	<p>Time to completion of the curriculum in the catalog. Completion of the Math Bridge program as part of the introductory course WLF 101.</p>	<p>Faculty advise students on their selection of courses in the core curriculum as well as those required for completion of the major.</p>
<p>GOAL STATEMENT: Provide courses of study that meet the criteria for certification as an associate wildlife biologist in The Wildlife Society. Provide opportunities to develop the skills and attributes for postgraduate studies and employment in wildlife science.</p>	<p>Graduates in wildlife biology should be able to effectively communicate scientific evidence in both oral and written form. They should be able to make cogent scientific arguments for specialist audiences in the sciences but should also be able to present their arguments and evidence to general audiences. Students should be able to develop skills and attributes that are required in the profession.</p>	<p>Students will write and present technical information in courses that are required in each year of the degree program from introductory biology (BIOL 115/ 116) to upper division courses in wildlife populations (WLF 410) and wildlife nutrition (WLF 460). Students will be introduced to practical skills in courses and through professional societies.</p>	<p>Faculty teaching core courses in biology and wildlife, especially those that offer activities and active learning in WLF 101, WLF 322, WLF 301. Faculty mentoring the student chapter of The Wildlife Society.</p>

Submitted by: