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PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR)

SUBMITTED BY:

Department	Biology & Wildlife	College/School	CNSM
Prepared by	Perry Barboza	Phone	474-7142
Email Contact	psbarboza@alaska.edu	Faculty Contact	

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)

Comparative Anatomy of Vertebrates (4 credits; BIOL 317) is being removed as a requirement for the program. This course describes the structure of fish, reptiles, birds and mammals. The material is covered in parts through several courses that are already included in the program, which includes Fundamentals of Biology I, Ornithology, Mammalogy and Principles and Techniques of Wildlife Management.

B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

Wildlife Biology and Conservation

College of Natural Science and Mathematics □ Department of Biology and Wildlife □ 907-474-7671 □ www.bw.uaf.edu

BS, MS DEGREES; MINOR

Downloadable PDF

Minimum Requirements for Degree: 120 credits

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OCT - 1 2014

Dean's Office

College of Natural Science & Mathematics

The undergraduate wildlife program provides basic education and training. This degree is designed for students whose objective is to accomplish the research needed to provide additional information on wild animal populations, their habitat and habitat-animal relationships. This degree is also for students whose primary interests involve interpreting, applying or disseminating research findings, rather than their acquisition. A wildlife BS degree is appropriate for students contemplating careers in wildlife agency administration, in developing and implementing wildlife management plans and in public information and education. The curriculum provides a solid foundation for graduate study and meets requirement for certification by The Wildlife Society.

The geographic location of the university is particularly advantageous for the study of wildlife biology. Spruce forest, aspen-birch forest, alpine tundra, bogs and several types of aquatic habitats are within easy reach. Studies can be made in many other habitats ranging from the dense forests of southeastern Alaska to arctic tundra.

Adequate study collections of plants and animals are available, and a 2,000-acre study area is near the campus. Wildlife biology students have ample opportunity for close association with the personnel of the Alaska Cooperative Fish and Wildlife Research Unit, Institute of Arctic Biology and several local offices of the federal and state conservation agencies. These agencies often provide support for graduate student projects, and

Governance TRP 10/3/14

program faculty usually hire a number of students for summer fieldwork. Thus, an unusually good opportunity is available for students to gain experience and to make job connections.

Major -- BS Degree

1. Complete the [general university requirements](#). (As part of the core curriculum requirements, complete COMM F141X.)
2. Complete the [BS degree requirements](#).
3. Complete the following program (major) requirements: *
 1. Complete the following: □
 - 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 F317--Comparative Anatomy of Vertebrates--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
 2. 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
 3. Complete the following: □
 - CHEM F105X--General Chemistry**--4 credits □
 - CHEM F106X--General Chemistry**--4 credits □
 - MATH F200X--Calculus (4)** □
 - or MATH F272X--Calculus for Life Sciences (3)**--3-4 credits □
 - PHYS F103X--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
 4. Complete at least one from each of the following pairs: □
 - WLF F4200--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
 5. Complete two of the following: * □
 - NRM F204--Public Lands Law and Policy--3 credits □
 - ECON F235--Introduction to Natural Resources Economics--3 credits □
 - NRM F407--Environmental Law--3 credits □
 - HIST F411--Environmental History--3 credits □
 - PS F447--Environmental Politics--3 credits
 6. Complete at least one additional course at the F300 level or higher (3 or 4

credits) in biology, wildlife biology, fisheries or natural resources management.*--3-4 credits

4. Minimum credits required--120 credits

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

** Satisfies a core requirement.

*** Satisfies a BS degree requirement.

Note: BS 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 BS 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 F322--Organic Chemistry (7)--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 F4600/2--Wildlife Nutrition--4 credits□

Approved BIOL and WLF 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 - F116X, 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)

Wildlife Biology and Conservation

College of Natural Science and Mathematics □ Department of Biology and Wildlife □ 907-474-7671 □ www.bw.uaf.edu

BS, MS DEGREES; MINOR

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- WLF F4600/2--Wildlife Nutrition--4 credits□
- Approved BIOL and WLF electives*--6 credits
- 2. Minimum credits required--15 credits

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Note: Prerequisites for required courses include BIOL F115X - F116X, 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.

D. ESTIMATED IMPACT

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

The removal of this requirement will give students more flexibility to take electives at the upper division. The deletion of the course will allow 8 contact hours per week (including 2 x 3h labs) to be used for other courses at the upper division.

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)

Removal of Comparative Anatomy (BIOL F317) from the Wildlife Biology and Conservation Program removes most of the demand for this course. The course is a prerequisite for two other courses taught in Biology: Ichthyology (BIOL F427/ FISH F427) and Mammalogy (BIOL F425). BIOL 371 is also listed as one of three interchangeable prerequisites for Vertebrate Paleontology (BIOL 686) and is recommended for Biology of Fishes (BIOL F301/ FISH F301). Removal of this requirement will not affect other degree programs because BIOL 317 is only listed as an elective for BS Biological Sciences.

F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:

Description of the student learning outcomes assessment process.)

Removal of Comparative Anatomy does not affect the breadth of coverage in zoology because we have retained courses in birds and mammals in the program. Students may also take Ichthyology and Vertebrate Paleontology as electives. Our curriculum continues to satisfy the requirements for certification of wildlife biologists by The Wildlife Society. Removal of Comparative Anatomy from the program deletes 4 credit hours from the Zoology section of the criteria to bring our total credits in the area to 15, which still exceeds the minimum number of 9 credits desired in Zoology.

Wildlife Biology & Conservation BS

	Required by major
	Required by core or BS degree

	Fall	Spring
Year 1	BIOL 115X, Fund Biol I	BIOL 116X, Fund Biol II
	CHEM 105X, Gen Chem I	CHEM 106X, Gen Chem II
	ENGL 111X, Intro Writing	COMM 131/141X, Oral Comm
	Core	
	Wildlife 101, Surv Wlf Sci	LS 101X, Library Sci
Year 2	BIOL 310, An Physiology	BIOL 239, Intro Plant Biol
	BIOL 371, Prin Ecology	BIOL 260, Prin Genetics
	ENGL 211/213X, Acad	STAT 200X, Statistics
	Core	Core
Year 3	WLF 322W, Prin Tech Wlf	BIOL 317, Comp Anat
	WLF 460 O/2, Wildlife Nutrition	STAT 401, Regression
	PHYS 103X/GEOS 101X/NRM 380	WLF 301, Design Wlf Studies
	ENGL 314/414, Tech/Res Writing	NRM 2014 or other, Nat Resourc
	NRM 2014 or other, Nat Resourc	Core
Year 4	BIOL 425W/WLF 421, Mammals	BIOL 226WO/2/WLF 425 Birds
	WLF 410, Populations	BIOL 331/BIOL 488 Plant
	Wlf, Biol, or NRM	BIOL 471 Pop, or other
	Core	Core


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.

Comparative Anatomy (BIOL F317) was taught for many years by Professor Erich Follmann. We have not been able assign this course to another qualified faculty member since Dr. Follmann died in 2010. The deletion of the course from the program will allow us to better allocate our efforts to other parts of the curriculum because the essential material from this course is now covered in other offerings.

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

	Date	10/1/2014
Signature, Chair, Program/Department of:		

	Date	10-2-14
Signature, Chair, College/School Curriculum Council for:	CNSM	

	Date	10/2/14
Signature, Dean, College/School of:	CNSM	

CHAIR SIGNATURE OBTAINED FOLLOWING APPROVAL BY FACULTY SENATE COMMITTEE

	Date	
Signature, Chair, UAF Faculty Senate		
___ Curriculum Review Committee		
___ Graduate Academic and Advisory Committee		