SUBMITTED BY:

Department: Biology and Wildlife
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See [http://www.uaf.edu/uafgov/faculty/cd/cdman.html](http://www.uaf.edu/uafgov/faculty/cd/cdman.html) for a complete description of the rules governing curriculum & course changes.

PROGRAM IDENTIFICATION:

DEGREE PROGRAM: Biological Sciences

Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.) B.A.

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

Introduction to Cell and Molecular Biology (BIOL F261) will be required for the B.A. degree in Biological Sciences.

B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

Major--B.A. Degree

1. Complete the general university requirements. (As part of the core curriculum requirements, complete: CHEM 105X* and 106X**.)

2. Complete the B.A. degree requirements.

3. Complete the following program (major) requirements:*
   - BIOL 105X--Fundamentals of Biology I--4 credits
   - BIOL 106X--Fundamentals of Biology II--4 credits
   - BIOL 271--Principles of Ecology--4 credits
   - BIOL 303--Principles of Metabolism and Biochemistry (4) or CHEM 321--Organic Chemistry (3) and CHEM 322--Organic Chemistry (3)--4-6 credits
   - BIOL 310--Animal Physiology (4) or BIOL 111X and 112X--Human Anatomy and--Physiology I & II (8)
   - BIOL 334W--Structure and Function of Vascular Plants (4) or BIOL 342--Microbiology (4)--4-8 credits
   - BIOL 362--Principles of Genetics--4 credits
   - BIOL 481--Principles of Evolution--4 credits
   - BIOL elective--3 credits
   - STAT 200X--Elementary Probability and Statistics--3 credits

4. Minimum credits required--130 credits

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

** A maximum of 6 credits of independent study (course numbers ending in 97) may be applied to this requirement. Students may petition to substitute chemistry courses (up to 10 credits for the biology electives required for the B.S. degree.)

Note: A foreign language is encouraged by the department in meeting requirements of the core curriculum.

Note: Biology foundation courses may be used toward partial fulfillment of the natural science requirement for the B.S. degree with a major in biological sciences.

Note: Candidates for the bachelor of science degree in general science wishing to major in biological sciences must satisfy both the requirements of their major curriculum and those listed above for a B.A. degree with a major in biological sciences.
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.A. Degree

5. Complete the **general university requirements**. (As part of the core curriculum requirements, complete: CHEM 105X* and 106X*.)

6. Complete the **B.A. degree requirements**.

7. Complete the following program (major) requirements:* 
   - BIOL 105X—Fundamentals of Biology I—4 credits
   - BIOL 106X—Fundamentals of Biology II—4 credits
   - BIOL 261—Introduction to Cell and Molecular Biology—4 credits
   - BIOL 271—Principles of Ecology—4 credits
   - BIOL 303—Principles of Metabolism and Biochemistry (4) or CHEM 321—Organic Chemistry (3) and CHEM 322—Organic Chemistry (3)—4-6 credits
   - BIOL 310—Animal Physiology (4) or BIOL 111X and 112X—Human Anatomy and—Physiology I & II (8)
   - BIOL 334W—Structure and Function of Vascular Plants (4) or BIOL 342—Microbiology (4)—4-8 credits
   - BIOL 362—Principles of Genetics—4 credits
   - BIOL 481—Principles of Evolution—4 credits
   - BIOL elective—3 credits
   —STAT 200X—Elementary Probability and Statistics—3 credits

8. **Minimum credits required**—130 credits

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

** A maximum of 6 credits of independent study (course numbers ending in 97) may be applied to this requirement. Students may petition to substitute chemistry courses (up to 10 credits for the biology electives required for the B.S. degree.)

Note: A foreign language is encouraged by the department in meeting requirements of the core curriculum.

Note: Biology foundation courses may be used toward partial fulfillment of the natural science requirement for the B.S. degree with a major in biological sciences.

Note: Candidates for the bachelor of science degree in general science wishing to major in biological sciences must satisfy both the requirements of their major curriculum and those listed above for a B.A. degree with a major in biological sciences.

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D. ESTIMATED IMPACT

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

There will be no impact on budget, facilities, space, and faculty resources. Initially the lab will be a recitation. In roughly 2 years we do anticipate using the lab for lab practicals. At that time we will add a lab fee to the course to cover laboratory costs.

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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)

**None**
F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:

Inclusion of Introduction to Cell and Molecular Biology (BIOL F261) will not affect our assessment plan. We will continue to use the assessment plan currently in place.

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.

Cell and molecular biology are fundamental topics in biology today and also serve as a foundation for several upper division Biology & Wildlife courses. The Biology & Wildlife Department currently does not offer introductory courses in either cell biology or molecular biology. The offering of Molecular Biology (BIOL F435) and other upper division courses has been compromised because instructors cannot presuppose that students have a good understanding of the fundamentals of cell biology and molecular biology. Adoption of Introduction to Cell and Molecular Biology (BIOL F261) will provide our students with a more complete education in biology and better prepare them for a career in the biological sciences.

To offset the addition of BIOL F261 (4cr) as a requirement, the number of required elective credits in Biology will be reduced from 24 to 20.

Adoption of Introduction to Cell and Molecular Biology (BIOL F261) was endorsed unanimously by the Biology and Wildlife faculty and strongly supported by the Department’s Teaching Advisory Committee.

APPROVALS:

R.C. Boone  
Signature, Chair,  
Program/Department of: Biology & Wildlife, Richard Boone  
Date 9/29/05

Date 9/30/08

CNSM, Diane Wagner  
Signature, Chair, College/School Curriculum Council for:  
Date 10/21/08

Dean, College/School of: College of Natural Science & Mathematics, Jan Broaddock