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**PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR/MINOR)**

**SUBMITTED BY:**

|               |                            |                 |                     |
|---------------|----------------------------|-----------------|---------------------|
| Department    | <b>Fish Division</b>       | College/School  | <b>SFOS</b>         |
| Prepared by   | <b>Trent Sutton</b>        | Phone           | <b>907-474-7285</b> |
| Email Contact | <b>tmsutton@alaska.edu</b> | Faculty Contact | <b>Trent Sutton</b> |

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

**PROGRAM IDENTIFICATION:**

|  |                                  |
|--|----------------------------------|
| DEGREE PROGRAM   | <b>B.S. in Fisheries Science</b> |
| Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.) | <b>B.S.</b>                      |

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

We removing FISH F101 Introduction to Fisheries (3 credits) from the B.S. in Fisheries Science degree program (as well as the B.A. in Fisheries degree program) and replacing it with FISH F110 Fish and Fisheries in a Changing World. The rationale for this change is that FISH F101 is going to become a non-majors fisheries course and FISH F110 will take its place as the introductory fisheries within the B.S. and B.A. degree programs.

**B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:**

- Major — BS Degree
1. Complete the general university requirements. (See page 131. As part of the core curriculum requirements, complete MATH F200X or F272X.) To graduate, all students must complete 39 upper-division credits.
  2. Complete the BS degree requirements. (See page 136. As part of the BS degree requirements, complete STAT F401 or STAT F402.)
  3. Complete the following:\*
- BIOL F115X—Fundamentals of Biology I\*\* .....4
  - BIOL F116X—Fundamentals of Biology II\*\*.....4
  - BIOL F260—Principles of Genetics.....4
  - BIOL F310—Animal Physiology (4)
  - or BIOL F213X—Human Anatomy and Physiology I (4)
  - and BIOL F214X—Human Anatomy and Physiology II (4)..... 4–8
  - BIOL F371—Principles of Ecology.....4
  - CHEM F105X—General Chemistry I\*\* .....4
  - CHEM F106X—General Chemistry II\*\*.....4
  - ECON F235—Introduction to Natural Resource Economics (3)
  - or ECON F201—Principles of Economics I: Microeconomics (3) .....3
  - ENGL F414W—Research Writing.....3
  - FISH F101—Introduction to Fisheries.....3
  - FISH F102—Fact or Fishin: Case Studies in Fisheries .....1
  - FISH F103—The Harvest of the Sea .....2
  - FISH F261—Introduction to Fisheries Utilization.....3
  - FISH F288—Fish and Fisheries of Alaska.....3
  - FISH F427—Ichthyology(4)
  - or BIOL F305—Invertebrate Zoology (4)
  - FISH F315—Freshwater Fisheries Techniques (3)
  - or FISH F414—Field Methods in Marine Ecology and Fisheries (3).....3
  - FISH F411—Human Dimensions of Environmental Systems (3)
  - or GEOG F312—People, Places, and Environment: Principles of Geography \*\*\*\*(3)
  - or SOC F440—Environmental Sociology \*\*\*\*(3).....3

|  |     |
|--|-----|
| FISH F425—Fish Ecology (3)   |     |
| or FISH F426—Behavioral Ecology of Fishes (3)  |     |
| or FISH F428—Physiological Ecology of Fishes (3).....  | 3   |
| FISH F487W,O—Fisheries Management.....   | 3   |
| FISH F490—Experiential Learning Internship .....   | 1   |
| PHYS F103X—College Physics** (4)   |     |
| or PHYS F115X—Physical Science I** (4)   |     |
| or PHYS F211X—General Physics** (4).....   | 4   |
| STAT F200X—Elementary Probability and Statistics.....  | 3   |
| STAT F401—Regression and Analysis of Variance*** (4)   |     |
| or STAT F402—Scientific Sampling*** (3).....   | 3-4 |
| 4. Complete 9 credits of electives* from Fisheries, Biology, Marine Science and Limnology or Natural Resource Management (of which at least 5 credits must be upper-division). |     |
| 5. Complete 4 credits of electives* from Chemistry, Geology or Physics.  |     |
| 6. Additional electives* to complete minimum credits required.   |     |
| 7. Minimum credits required .....  | 120 |
| * Students must earn a C- grade or better in each course.  |     |
| ** Courses completed in the fisheries core may be used to meet the core natural sciences or BS degree natural science requirements but not both.                               |     |

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 )*

|  |              |
|--|--------------|
| <b>Major — BS Degree</b>   |              |
| 1. Complete the general university requirements. (See page 131. As part of the core curriculum requirements, complete MATH F200X or F272X.) To graduate, all students must complete 39 upper-division credits. |              |
| 2. Complete the BS degree requirements. (See page 136. As part of the BS degree requirements, complete STAT F401 or STAT F402.)  |              |
| 3. Complete the following:*  |              |
| BIOL F115X—Fundamentals of Biology I** .....   | 4            |
| BIOL F116X—Fundamentals of Biology II**.....   | 4            |
| BIOL F260—Principles of Genetics.....  | 4            |
| BIOL F310—Animal Physiology (4)  |              |
| or BIOL F213X—Human Anatomy and Physiology I (4)   |              |
| and BIOL F214X—Human Anatomy and Physiology II (4).....  | 4-8          |
| BIOL F371—Principles of Ecology.....   | 4            |
| CHEM F105X—General Chemistry I** .....   | 4            |
| CHEM F106X—General Chemistry II**.....   | 4            |
| ECON F235—Introduction to Natural Resource Economics (3)   |              |
| or ECON F201—Principles of Economics I:  |              |
| Microeconomics (3) .....   | 3            |
| ENGL F414W—Research Writing.....   | 3            |
| <del>FISH F101—Introduction to Fisheries.....</del>  | <del>3</del> |
| FISH F102—Fact or Fishin: Case Studies in Fisheries .....  | 1            |
| FISH F103—The Harvest of the Sea .....   | 2            |
| <u>FISH F110—Fish and Fisheries in a Changing World.....</u>   | <u>3</u>     |
| FISH F261—Introduction to Fisheries Utilization.....   | 3            |
| FISH F288—Fish and Fisheries of Alaska.....  | 3            |
| FISH F427—Ichthyology(4)   |              |
| or BIOL F305—Invertebrate Zoology (4)  |              |
| FISH F315—Freshwater Fisheries Techniques (3)  |              |
| or FISH F414—Field Methods in Marine Ecology and Fisheries (3).....  | 3            |
| FISH F411—Human Dimensions of Environmental Systems (3)  |              |
| or GEOG F312—People, Places, and Environment:  |              |
| Principles of Geography ****(3)  |              |
| or SOC F440—Environmental Sociology ****(3).....   | 3            |
| FISH F425—Fish Ecology (3)   |              |
| or FISH F426—Behavioral Ecology of Fishes (3)  |              |
| or FISH F428—Physiological Ecology of Fishes (3).....  | 3            |

|  |     |
|--|-----|
| FISH F487W,O—Fisheries Management.....   | 3   |
| FISH F490—Experiential Learning Internship .....   | 1   |
| PHYS F103X—College Physics** (4)   |     |
| or PHYS F115X—Physical Science I** (4)   |     |
| or PHYS F211X—General Physics** (4).....   | 4   |
| STAT F200X—Elementary Probability and Statistics.....  | 3   |
| STAT F401—Regression and Analysis of Variance*** (4)   |     |
| or STAT F402—Scientific Sampling*** (3).....   | 3-4 |
| 4. Complete 9 credits of electives* from Fisheries, Biology, Marine Science and Limnology or Natural Resource Management (of which at least 5 credits must be upper-division). |     |
| 5. Complete 4 credits of electives* from Chemistry, Geology or Physics.  |     |
| 6. Additional electives* to complete minimum credits required.   |     |
| 7. Minimum credits required .....  | 120 |

\* Students must earn a C- grade or better in each course.  
 \*\* Courses completed in the fisheries core may be used to meet the core natural sciences or BS degree natural science requirements but not both.

**D. ESTIMATED IMPACT**

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

There is no anticipated impact of these changes on budgets, facilities, space, and faculty. FISH F110 Fish and Fisheries in a Changing World (3 credits) is a course that is to be taught every fall semester by Fisheries faculty member Peter Westley as part of his annual workload. FISH F101 Introduction to Fisheries (3 credits) will be taught strictly as an online, asynchronous web course during the spring semester by Fisheries faculty member Shannon Atkinson as part of her annual workload. FISH F110 will require video conferencing, which is available in SFOS, whereas the asynchronous FISH F101 course will be taught the same as it has been taught the previous four spring semesters. There are no additional resources required for these courses.

**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)*

The addition of FISH F110 to and removal of FISH F101 from the B.S. in Fisheries Science degree program will have no impact on any other degree programs at UAF.

**F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:**

*Description of the student learning outcomes assessment process.)*

Because FISH F110 will replace FISH F101 in the B.S. in Fisheries Science program, there exists a metric already in place to that will assess the impact of this change:

Compare individual scores of students in similarly-scored evaluations of term papers in the introductory and capstone courses; 80% of students who complete both courses will improve scores.

In this case, the introductory course in the assessment will switch from FISH F101 to FISH F110 while the capstone course will remain FISH F487 Fisheries Management.


**JUSTIFICATION FOR ACTION REQUESTED**

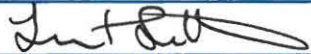
The purpose of the department and campus-wide curriculum committees is to scrutinize program/degree change applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. If 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.

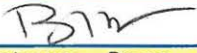
FISH F110 is being added to the program in place of FISH F101 because there is a new instructor (Peter Westley) that wants to make the course more interactive and discussion based, which should facilitate undergraduate student retention. Because FISH F101 existed as both a live, in-person class taught in Fairbanks (taught during the fall semester) and an asynchronous, web-based course (taught in the spring semester), it was not possible to meet the new interactive, discussion-based needs and coordinate content delivery easily given the different modalities of instruction (in person versus asynchronous web). Further, the asynchronous web version of FISH F101 has primarily attracted nonmajors, and these students often have very different backgrounds than students within the fisheries degree programs. As a result, the

Undergraduate Fisheries Program Committee supported the discussion between the two instructors (Westley and Atkinson) to develop a new fisheries major introductory course that is highly interactive (FISH F110) that is a requirement in the B.S. in Fisheries Science program (as well as the B.A. in Fisheries program). FISH F101 will still exist and will be taught strictly as an asynchronous web course to non-fisheries majors.

APPROVALS:

|   |           |         |
|---|-----------|---------|
|  | Date      | 3/22/14 |
| Signature, Chair,<br>Program/Department of:                                       | Fisheries |         |

|   |           |         |
|---|-----------|---------|
|  | Date      | 8/22/14 |
| Signature, Chair, College/School Curriculum<br>Council for:                       | Fisheries |         |

|   |                                      |         |
|---|--------------------------------------|---------|
|  | Date                                 | 8/22/14 |
| Signature, Dean, College/School<br>of:  | School of Fisheries & Ocean Sciences |         |

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

|   |      |  |
|---|------|--|
|   | Date |  |
| Signature, Chair, UAF Faculty Senate Curriculum<br>Review Committee |      |  |