Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500). See http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/ for a complete description of the rules governing curriculum & course changes.

**TRIAL COURSE OR NEW COURSE PROPOSAL**
(Attach copy of syllabus)

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>FISH</th>
<th>College/School</th>
<th>SFOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared by</td>
<td>Brian Himelbloom</td>
<td>Phone</td>
<td>486-1529</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:bhhimelbloom@alaska.edu">bhhimelbloom@alaska.edu</a></td>
<td>Faculty Contact</td>
<td>Brian Himelbloom</td>
</tr>
</tbody>
</table>

**1. ACTION DESIRED**
(CHECK ONE):

- Trial Course [X]
- New Course

**2. COURSE IDENTIFICATION:**

<table>
<thead>
<tr>
<th>Dept</th>
<th>FISH</th>
<th>Course #</th>
<th>494</th>
<th>No. of Credits</th>
<th>2</th>
</tr>
</thead>
</table>

Justify upper/lower division status & number of credits:

**3. PROPOSED COURSE TITLE:**

Fish Diseases and Pathology

**4. To be CROSS LISTED?**

<table>
<thead>
<tr>
<th>YES/NO</th>
<th>If yes, Dept:</th>
<th>Course #</th>
</tr>
</thead>
</table>

NOTE: Cross-listing requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.

**5. To be STACKED?**

<table>
<thead>
<tr>
<th>YES/NO</th>
<th>If yes, Dept:</th>
<th>Course #</th>
</tr>
</thead>
</table>

How will the two course levels differ from each other? How will each be taught at the appropriate level?

* Use only one Format 1 form for the stacked course (not one for each level of the course) and attach syllabi. Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi (undergraduate and graduate versions) will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online – see URL at top of this page.

**6. FREQUENCY OF OFFERING:**

- Fall, Odd-Numbered Years
- Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

**7. SEMESTER & YEAR OF FIRST OFFERING**
(Effective AY2015-16 if approved by 3/31/2015; otherwise AY2016-17)

- AY2015-16

**8. 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.

<table>
<thead>
<tr>
<th>COURSE FORMAT:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>X</th>
<th>6 weeks to full semester</th>
</tr>
</thead>
</table>

OTHER FORMAT (specify)

Mode of delivery (specify lecture, field trips, labs, etc) lecture
9. **CONTACT HOURS PER WEEK:**

<table>
<thead>
<tr>
<th></th>
<th>LECTURE</th>
<th>LAB</th>
<th>PRACTICUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>hours/week</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See [http://www.uaf.edu/aa/gov/faculty-senate/curriculum/course-degree-procedures/guidelines-for-computing/](http://www.uaf.edu/aa/gov/faculty-senate/curriculum/course-degree-procedures/guidelines-for-computing/) for more information on number of credits.

OTHER HOURS (specify type) ________________________________

10. **COMPLETE CATALOG DESCRIPTION** including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):

*Example of a complete description:*

**FISH F487 W, O** Fisheries Management

3 Credits  Offered Spring

Theory and practice of fisheries management, with an emphasis on strategies utilized for the management of freshwater and marine fisheries. Prerequisites: COMM F131X or COMM F411X; ENGL F111X; ENGL F211X or ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0)

**FISH 494 Fish Diseases and Pathology**

2 Credits  Offered Fall, Odd-Numbered Years

From viruses to parasites, fish are constantly challenged in their aquatic environs. Students will learn the various agents that afflict fishes, the symptoms expressed, and the methods used for diagnosing diseases.

Prerequisites: FISH 228 and ENC 111 (2+0)

11. **COURSE CLASSIFICATIONS:** Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.

<table>
<thead>
<tr>
<th></th>
<th>S = Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>H = Humanities</td>
<td>YES</td>
</tr>
</tbody>
</table>

Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form.

IF YES, check which core requirements it could be used to fulfill:

- O = Oral Intensive, Format 6
- W = Writing Intensive, Format 7
- X = Baccalaureate Core

11A. Is course content related to northern, arctic or circumpolar studies? If yes, a “snowflake” symbol will be added in the printed Catalog, and flagged in Banner.

YES | X |

12. **COURSE REPEATABILITY:**

Is this course repeatable for credit? YES | NO | X |

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?

If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?

13. **GRADING SYSTEM:** Specify only one. Note: Changing the grading system for a course later on constitutes a Major Course Change – Format 2 form.

LETTER: X | PASS/FAIL: |
RESTRICTIONS ON ENROLLMENT (if any)

14. PREREQUISITES

FISH 288 and ENG 111

These will be required before the student is allowed to enroll in the course.

15. SPECIAL RESTRICTIONS, CONDITIONS

16. PROPOSED COURSE FEES

$0

Has a memo been submitted through your dean to the Provost for fee approval? Yes/No

17. PREVIOUS HISTORY

Has the course been offered as special topics or trial course previously? Yes/No

If yes, give semester, year, course #, etc.: 

18. ESTIMATED IMPACT

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

Requires use of videoconferencing rooms in the Kodiak Seafood and Marine Science Center, in the O'Neill Bldg (Fairbanks) and in the SFOS facility in Juneau. This course will be part of my teaching load and undergraduate credits will accrue to the SFOS teaching budget.

19. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (kljensen@alaska.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 X

The library is downsizing its holdings and does not have the budget to purchase textbooks for reserved usage (contact was on 12/12/14). All necessary lecture material comes from the textbooks. Supplemental information can be found in the library's electronic holdings such as Journal of Fish Diseases, Journal of Fish Biology, and Aquaculture.

20. 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 Fisheries Division will have another elective available for undergraduate FISH students as well as for students from other departments such as BIOL and VetMed. This course will be offered every odd-numbered year to optimize enrollment. As a videoconferenced class, lecture material will be posted to Blackboard for ease of viewing.

21. POSITIVE AND NEGATIVE IMPACTS

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

The list of lecture topics is suitable for enhancing the depth of knowledge in Fisheries undergraduate students and may attract students from allied fields such as BIOL and VetMed.

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. Use as much space as needed to fully justify the proposed course.

This course has not been offered previously by UAF. This is an upper-division class and extends familiarity with fish physiology and anatomy.
APPROVALS: Add additional signature lines as needed.

Date 12/17/14
Signature, Chair, Program/Department of: UG Fisheries

See attached
Date
Signature, Chair, College/School Curriculum Council for: SPOS

Date 12/17/14
Signature, Dean, College/School of: SPOS

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

Signature of Provost (if above level of approved programs)

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

Date
Signature, Chair
Faculty Senate Review Committee: ___Curriculum Review ___GAAC

___Core Review ___SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

Date
Signature, Chair, Program/Department of:

Date
Signature, Chair, College/School Curriculum Council for:

Date
Signature, Dean, College/School of:
Re: Proposed course

Ana Aguilar-Islas <amaguilarislas@alaska.edu>
To: Christina Neumann <clneumann@alaska.edu>

OK, then lets just move it along...Thanks and Happy holidays

Ana

[Quoted text hidden]
ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at:
http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/uaf-syllabus-requirements/

The Faculty Senate 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
(or changes to it) may 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.) Publicize UAF regulations with regard to the grades of “C” and
    below as applicable to this course. (Not required in the syllabus, but is a convenient way to publicize this.) Link to PDF
    summary of grading policy for “C”:

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

12. Disabilities Services: Note that the phone# and location have been updated. http://www.uaf.edu/disability/ The
    Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures that UAF students have
    equal access to the campus and course materials.
    - State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655)to provide
    reasonable accommodation to students with disabilities.

5/21/2013
FISH 494: Fish Diseases and Pathology

2 credits – Fall 2015

UAF, SFOS, Kodiak Seafood and Marine Science Center

Prerequisites: FISH 288 and ENG 111

Location: 219 Owen (Kodiak), 214 O'Neill (Fairbanks), 103 Lena Point (Juneau) and other videoconferencing locations as needed

Meeting Times: M, W to be determined

Instructor: Brian Himelbloom, PhD, CFS
Associate Professor of Seafood Microbiology
Kodiak Seafood and Marine Science Center
Rm. 130 (office hours: M-F 9:00 – 10:00 a.m. and 4:00 – 5:00 p.m.)
486-1529
bhhimelbloom@alaska.edu

Course Readings/Materials


Other assigned readings selected from: Reviews from the scientific literature, downloadable from the web, and listed on Blackboard.

Course Description: From viruses to parasites, fish are constantly challenged in their aquatic environs. Students will learn the various agents that afflict fishes, the symptoms expressed, and the methods used for diagnosing diseases.

Course Goal: Students will have a basic understanding of the types of pathological conditions that may affect fishes. The primary focus will be on infectious agents and mechanisms which allow disease to occur in fishes.
Student Learning Outcomes: Upper-division students will be able to utilize the education received for conversing with fish hatchery management, especially if the knowledge gained leads to a fishery-related job. Specifically, students will gain knowledge of various kinds of fish diseases. They will learn about the techniques used for diagnosing and treating fish.

Instructional Methods: The primary KSMSC conference room (#219) will be used for videoconferencing the lectures. Class discussion of subject matter from the reading assignments will occur.

Course Calendar

<table>
<thead>
<tr>
<th>Dates (M, W)</th>
<th>Lectures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 31, Sept. 2</td>
<td>Introduction to the course; Ch. 3, “The Pathophysiology and Systematic Pathology of Teleosts”, pp. 62-143</td>
</tr>
<tr>
<td>Sept. 7</td>
<td>Labor Day (no class)</td>
</tr>
<tr>
<td>Sept. 9</td>
<td>Ch. 3 (continued) and term paper topic selected</td>
</tr>
<tr>
<td>Sept. 14, 16</td>
<td>Ch. 4, “The Immunology of Teleosts”, pp. 144-166</td>
</tr>
<tr>
<td>Sept. 21, 23</td>
<td>Ch. 5, “Neoplasia of Teleosts”, pp. 167-185</td>
</tr>
<tr>
<td>Sept. 28, 30</td>
<td>Ch. 6, “The Virology of Teleosts”, pp. 186-291</td>
</tr>
<tr>
<td>Oct. 5, 7</td>
<td>Ch. 6 (continued)</td>
</tr>
<tr>
<td>Oct. 12, 14</td>
<td>Ch. 7, “The Parasitology of Teleosts”, pp. 292-338</td>
</tr>
<tr>
<td>Oct. 19</td>
<td>Midterm Exam</td>
</tr>
<tr>
<td>Oct. 21</td>
<td>Ch. 8, “The Bacteriology of Teleosts”, pp. 339-382</td>
</tr>
<tr>
<td>Oct. 26, 28</td>
<td>Ch. 8 (continued)</td>
</tr>
<tr>
<td>Nov. 2, 4</td>
<td>Ch. 9, “The Mycology of Teleosts”, pp. 383-401</td>
</tr>
<tr>
<td>Nov. 9, 11</td>
<td>Ch. 10, “The Nutritional Pathology of Teleosts”, pp. 402-424</td>
</tr>
<tr>
<td>Nov. 16, 18</td>
<td>Ch. 11, “Miscellaneous Non-Infectious Diseases”, pp. 425-438</td>
</tr>
<tr>
<td>Nov. 23, 25</td>
<td>Ch. 12, “Laboratory Methods”, pp. 439-481</td>
</tr>
<tr>
<td>Nov. 30 Dec. 2</td>
<td>Ch. 12 (continued)</td>
</tr>
<tr>
<td>Dec. 7, 9</td>
<td>Ch. 12 (continued) and term paper due</td>
</tr>
<tr>
<td>Dec. 14</td>
<td>Final Exam</td>
</tr>
</tbody>
</table>

Course Policies: Attendance and participation is mandatory for this course in order to receive a final grade. Academic integrity will be upheld and plagiarism will not be tolerated. Details about understanding what constitutes plagiarism are explained at library.uaf.edu/fs101-plagiarism. The policies follow the UAF Student Code of Conduct www.uaf.edu/catalog/current/academics/regs3.html.

Evaluation: The course grade will be determined from a mid-term exam, a final exam and the writing of an original 10-page term paper. Each will count 1/3 of the grade.

Rubric for the written, original, term paper will follow this scheme:

<table>
<thead>
<tr>
<th>Project Report</th>
<th>Level 1 (low)</th>
<th>Level 2 (medium)</th>
<th>Level 3 (high)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of writing</td>
<td>lacking basic aspects</td>
<td>good with several grammatical errors noted</td>
<td>superior and error-free grammar</td>
</tr>
<tr>
<td>References cited</td>
<td>none presented</td>
<td>limited number of citations (1-9)</td>
<td>incorporated recent and relevant citations (10-20)</td>
</tr>
<tr>
<td>Point values per level</td>
<td>50-69</td>
<td>70-89</td>
<td>90-100</td>
</tr>
</tbody>
</table>
The final grade will be based on the accumulation of points from two 100-point exams and the term paper (maximum of 100 points). A standard curve will be used:

- 97-100 (A+) = 291-300 points
- 93-96 (A) = 279-290 points
- 90-92 (A-) = 270-278 points
- 87-89 (B+) = 261-269 points
- 84-86 (B) = 252-260 points
- 80-83 (B-) = 240-251 points
- 77-79 (C+) = 231-239 points
- 74-76 (C) = 222-230 points
- 70-73 (C-) = 210-221 points
- 67-69 (D+) = 201-209 points
- 64-66 (D) = 192-200 points
- 60-63 (D-) = 180-191 points
- <60% (F) = <180 points

By UAF regulations www.uaf.edu/files/uafgov/Info-to-Publicize-C_Grading-Policy-UPDATED-May-2013.pdf “a grade of “C” (including C+ and C-) indicates a satisfactory level of acquired knowledge and performance in completion of course requirements. A grade of C- (1.7 grade points) is the minimum acceptable grade that undergraduate students may receive for courses to count toward the major or minor degree requirements, or as a prerequisite for another course. A minimum grade of C (2.0 grade points), however, MAY be required by specific programs for prerequisite and/or major / minor courses. Please consult specific program listings in the UAF Catalog.”

Support Services: Tutoring is not available in Kodiak. However, the KSMSC is part of the School of Fisheries and Ocean Sciences and the Academic Programs www.sfos.uaf.edu/academics/ can be contacted at 907-474-7289 (ph), 907-474-5863 (fax) and academics@sfos.uaf.edu for meeting a student’s need for assistance.

Disabilities Services: Reasonable accommodations provided by the Office of Disabilities Services (208 Whitaker Bldg., 474-5655) will be made to students with disabilities.
Curriculum Committee SFOS

Members: Ana Aguilar-Islas (Chair)
         Jeffrey Falke
         Katrin Iken
         Andres Lopez

Trial Course
Course Number: FISH 494
Course Title: Fish Diseases and Pathology
Instructor: Himbelbloom
First Time of Offering: Yes

General Comments and Recommendations:
This was seen as a valuable elective course offering that is likely to have appeal within and outside the School of Fisheries. The recommendation is to broaden the likelihood of enrolment of SFOS and non-SFOS students by modifying the prerequisites.

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Faculty Senate Form:

Clarify and Address the following:

- **Section 6:** Consistency in offering frequency is needed with catalog description. (“odd-numbered years” here, while descriptions states “even-numbered years”
- **Section 10:** See above bullet. Also change “FISH 430” to “FISH 494”
- **Section 11A:** The “NO” box should be checked, as this course does not really qualify for this designation
- **Section 14:** To broaden likelihood of enrolment by SFOS students and students outside SFOS (e.g. biology and wildlife or the pre-Vet program) consider changing the prerequisites as follows:
  Remove FISH 427. This class is taken mainly by fisheries students in their senior year, and limits the class to only a few students in fisheries.
  Require FISH 288 or the BIO 100 series
  Include ENG 111, and COM131 or COM 141 because the class relies heavily on a term paper and oral presentation for grading.
- **Section 18:** Add more information. Because of recent budget concerns, indicate that this is part of your teaching load (or if it is not, also indicate that). Indicate positive impacts on budget due to class enrollment.
- **Section 19:** Contact the library, even if necessary course materials are available. The library can also purchase textbook (if not in the collection) and keep it on reserve. It is good to show that the library is a valuable resource for the university.
- **Sections 20 and 21:** Have a positive spin on the impact of this course. This is a unique class with potentially wide appeal, and would have a positive impact on SFOS and other departments by increasing Alaska-relevant electives. Remove the sentence that states you expect low enrollment. A good reason to offer it every other year is to accommodate it into your workload.
• Justification – Again make more inclusive rather than restrictive. Mention its relevance to other programs besides SPOS.

Syllabus:
• Adjust prerequisites
• Indicate TBD for class time
• Indicate explicitly that the text is required (we are assuming that it is)
• Course descriptions in catalog and syllabus should match.
• Learning outcomes need to be quite specific and spelled out because this is a significant area of focus at the next level of review (UAF CRC). See example below for reference.
• Course Calendar: For clarity add “and reading assignments” after “Lectures”
• The course policies are somewhat vague. Do you mean that they will receive an incomplete if they don’t attend or participate?
• The evaluation: 45% of the grade is based on a 20 minute presentation. UAF CRC is going to flag this because almost ½ the total grade comes from a somewhat subjective evaluation. Also for a 400 level course exams are appropriate for assessing learning objectives (a final, or a midterm and final are likely to be recommended). The rubrics for the written paper and oral presentation are not objective enough in their current form. UAF CRC will want to see objective requirements (e.g. the number of pages (or words) required, how many points are allocated to grammar vs. content, expected reference sources (websites vs. primary literature), etc).
• Fix points to include all possible scores. Missing now: 193, 185, 173, 167…etc.

Example:
Learning Outcomes
• Understand how the oceans operate as part of the broader earth system
• Learn about how human activities impact the oceans
• Develop the ability to analyze, interpret, connect, and discuss earth system data as indicators of change
• Learn about uncertainty in global change science and how scientific inquiry can reduce uncertainties
• Evaluate the potential societal, economic, security, and cultural implications of our changing oceans
• Understand the role of oceanic changes in the context of current events
• Assess the feasibility of deliberate actions to mitigate global change and its impacts

Instructional methods: This course will achieve the intended learning outcomes through the use of lectures, demonstrations, group discussions, and homework assignments. There will be an emphasis on active learning, and as such, your participation in class is very important.
Re: Proposed course

Ana Aguilar-Islas <amaguilarislas@alaska.edu>  
To: Christina Neumann <cneumann@alaska.edu>  

Hello Christina

Thanks for moving these proposals forward.  
The one for Fish 494 is ready too.

Ana

Sent from my iPhone

[Quoted text hidden]