## Trial Course or New Course Proposal

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Environmental Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared by</td>
<td>Tara Borland</td>
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<tr>
<td>Email Contact</td>
<td><a href="mailto:taborland@alaska.edu">taborland@alaska.edu</a></td>
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<tr>
<td>College/School</td>
<td>CRCD</td>
</tr>
<tr>
<td>Phone</td>
<td>907-842-5109</td>
</tr>
<tr>
<td>Faculty Contact</td>
<td>Dr. Todd Radenbaugh</td>
</tr>
</tbody>
</table>

### 1. Action Desired

**CHECK ONE:**
- [ ] Trial Course
- [X] New Course

### 2. Course Identification

<table>
<thead>
<tr>
<th>Dept</th>
<th>ENVI</th>
<th>Course #</th>
<th>112</th>
<th>No. of Credits</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justify upper/lower division status &amp; number of credits:</td>
<td>ENVI 111 or consent of the instructor</td>
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### 3. Proposed Course Title

Introduction to Water Quality III: Data Quality Assurance

### 4. To be Cross Listed?

- [ ] YES
- [X] NO

(Requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.)

### 5. To be Stacked?

- [ ] YES
- [X] NO

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:

<table>
<thead>
<tr>
<th>Semester &amp; Year of First Offering</th>
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<tbody>
<tr>
<td>Spring Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants</td>
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### 7. Semester & Year of First Offering

(AY2013-14 if approved by 3/1/2013; otherwise AY2014-15)

- [ ] Spring 2016

### 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: (check all that apply)</th>
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<tbody>
<tr>
<td>[X] 1 6 weeks to full semester</td>
</tr>
<tr>
<td>[X] 2 3</td>
</tr>
<tr>
<td>[X] 3 5</td>
</tr>
<tr>
<td>[ ] 4</td>
</tr>
<tr>
<td>[ ] 5</td>
</tr>
</tbody>
</table>

**OTHER FORMAT (specify):**

Duration of course could vary dependent on instructor

Mode of delivery (specify lecture, field trips, labs, etc)

This course will use a combination of lecture, laboratory and field experiences.

### 9. Contact Hours Per Week:

<table>
<thead>
<tr>
<th>Contact Hours Per Week:</th>
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<tbody>
<tr>
<td>13.5 Lecture hours/week</td>
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<tr>
<td>3 Lab hours/week</td>
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<tr>
<td>Practicum hours/week</td>
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**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/uafgov/faculty-senate/curriculum/course-degree-procedures-guidelines-for-computing-for more information on number of credits.](http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-guidelines-for-computing/)

**OTHER HOURS (specify type):**

To accommodate as many students and community needs as possible this course can be offered as an intensive over a period of 3 days or throughout the entire semester.

### 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 F141X; ENGL F111X; ENGL F211X or ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0)

ENVI F112 Introduction to Water Quality III: Data Quality Assurance
1 credit Offered as demand warrants
Students participating in this class will review proper use of surface water quality testing equipment and calibration and operation methods learned in ENVI 110 and ENVI 111. Emphasis in this class will be placed on conducting data quality assurance measures that meet data quality objectives, writing and following a data Quality Assurance Project Plan (QAPP), and data analysis and reporting. Students will continue to develop their own U.S. Environmental Protection Agency approved QAPP for surface water quality monitoring. Prerequisites: ENVI 111 Letter graded (1+0).

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

H = Humanities
S = Social Sciences

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
Natural Science, (“X” for Core) Format 8

11.A 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: NO: 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? 0 TIMES

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

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

13. GRADING SYSTEM: Specify only one. Note: Later changing the grading system for a course constitutes a Major Course Change.

LETTER: X PASS/FAIL: 

RESTRICTIONS ON ENROLLMENT (if any)

14. PREREQUISITES

ENVI 111 or consent of instructor

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

15. SPECIAL RESTRICTIONS, CONDITIONS

none

16. PROPOSED COURSE FEES

none

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.

Minimal impact on budget, facilities, and classroom space. Classes will be taught by UAA ANHP Faculty, Daniel Bogan or approved adjunct instructors. The course may be offered through UAF CRCD campuses. Water quality sampling equipment will be provided by UAF but participants are encouraged to bring the equipment that they need to be certified on.

19. LIBRARY COLLECTIONS
Have you contacted the library collection development officer (kijensen@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 X Yes no additional resources needed

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)

This course is supported by Kevin Illingworth, the coordinator of the UAF Tribal Management Program as it will have a positive impact for students enrolled in the Tribal Management Program. Their Natural Resources Management program has been left without any environmental courses due to limited resources. Tribal Management students will benefit from the availability of such courses, boosting the Environmental Studies program student numbers.

21. POSITIVE AND NEGATIVE IMPACTS
Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

The Directors of the Northwest Campus, Bristol Bay Campus and Kuskokwim Campus have all indicated that this course will have a positive impact on their respective rural communities by allowing increased educational opportunities in water quality testing and management, particularly for rural tribes applying for funding from the EPA Indian General Assistance Program. Deborah McLean, Director of the Bristol Bay Campus believes that this course will meet the needs most central to water quality in Alaska’s rural communities.

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 is a recertification course for the UAF CRCD Surface Water Quality OE and is the final in the student’s path after ENVI 111 in developing and completing their quality assurance action plan. The justification for this course is therefore similar to ENVI 111.

The UAF CRCD Surface Water Quality OE is offered in partnership with UAA, EPA Indian General Assistance Program (IGAP), Alaska Department of Environmental Conservation as well as several watershed councils, native associations and other local, regional entities.

This course is an important part of a proposed Surface Water Quality Monitoring Occupational Endorsement (OE) offered through UAF CRCD. This OE is designed to provide an entry level education that promotes workforce development in rural regions. Graduates will receive the training necessary to become a rural water quality technician. Previously these positions have often been filled by consultants or under-trained individuals. All municipalities and villages in AK are now required to show ‘competency’ when collecting and reporting local water quality data to state and federal officials such as the EPA or DEC. The EPA Region 10 has stated that this OE does prove ‘competency.’
Regulating organizations such as the DEC and EPA are very interested in the creation of a standardized training program for rural water quality technicians. Key personnel from EPA Region 10 who attended the Alaska Forum on the Environment in February 2015, voiced support for the Surface Water Quality OE and classes as they promote the proper collection and management of defensible data. Further, the OE will allow community members to take courses that help them gain a job locally.
Surface water quality monitoring is done across Alaska so that communities can develop a water quality database to serve as a baseline that may measure future changes. By developing a program that puts in place a standardized training regime for rural water quality technicians, this helps to ensure that the tests will be done so they are accurate and defensible. The Yukon River Inter-Tribal Watershed Council, Southwest Alaska Municipal Conference, and Bristol Bay Native Association all endorse this course and the surface water quality OE as they believe it will help communities gain defensible water quality testing and reporting programs. Further each of these partners are required to employ environmental program staff with the proper water quality sampling and collection training. Upon completion of the surface water quality OE students will have a solid foundation of skills applicable to other technical positions available in the community or tribe.

APPROVALS: Add additional signature lines as needed.

Signature, Chair, Program/Department of: ____________________________ Date 4-7-15

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

Signature, Dean, College/School of: ____________________________

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

Signature of Provost (if above level of approved programs): ____________________________ Date

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

Signature, Chair Faculty Senate Review Committee: Curriculum Review GAAC Core Review SADAC

Signature, Chair, Program/Department of: ____________________________ Date

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

Signature, Dean, College/School of: ____________________________ Date

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

Signature, Chair, Program/Department of: ____________________________ Date

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

Signature, Dean, College/School of: ____________________________ Date
ATTACH COMPLETE SYLLABUS (as part of this application). The guidelines are online: 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 may be a convenient way to publicize this.) Faculty Senate Meeting #171: http://www.uaf.edu/uafgov/faculty-senate/meetings/2010-2011-meetings/#171

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.
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. 8/1/2012