SUBMITTED BY:

<table>
<thead>
<tr>
<th>Department</th>
<th>Environmental Studies</th>
<th>College/School</th>
<th>CRCD - Bristol Bay Campus</th>
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<tbody>
<tr>
<td>Prepared by</td>
<td>Todd Radenbaugh</td>
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<td>907-842-5109</td>
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<td>Email/Contact</td>
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<td>Faculty Contact</td>
<td>Todd Radenbaugh</td>
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**PROGRAM IDENTIFICATION:**

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Environmental Studies</th>
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<tbody>
<tr>
<td>Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.)</td>
<td>Certificate</td>
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**A. CHANGE IN DEGREE REQUIREMENTS:** (Brief statement of program/degree changes and objectives)

The removal of the GEOG F111X as a requirement for the ENVI Certificate, adding two more science lab course options, and reducing the number of mandatory credits from 34 to 30.

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

**Environmental Studies**
College of Rural and Community Development
Bristol Bay Campus
907-842-5109
[www.uaf.edu/bbc/](http://www.uaf.edu/bbc/)

Certificate

Minimum Requirements for Certificate: 34–39 credits

This program addresses many of the environmental issues influencing Alaska communities and provides basic academic preparation for entry-level vocational environmental careers. The program serves as a steppingstone into science-related associate or baccalaureate programs.

This program may be especially of interest to individuals employed by and/or interested in employment with state, federal or tribal agencies or other groups providing natural resource management services. It is recommended that students have completed a high school lab-based science, biology or chemistry course as well as algebra due to the science focus of this program.

Certificate Program

1. Complete the general university requirements.
2. Complete the certificate requirements.*
3. Complete the following:
1. Complete one of the following communication courses:
   ENGL F111X--Introduction to Academic Writing (3)
   or ABUS F170--Business English (3)--3 credits

2. Complete the following:
   DEV M F105--Intermediate Algebra (3)
   or MATH/CS/STAT at the 100 level or higher--3 credits

3. Complete one of the following human relations courses:
   ANTH F100X/SOC F100X--Individual, Society and Culture (3)
   or ABUS F154--Human Relations (3)
   or other program-approved discipline-based human relations course--3 credits

4. Complete the following program requirements:*
   1. Complete two science foundation courses:
      BIOL F103X--Biology and Society (4)
      or BIOL F104X--Natural History of Alaska (4)
      or BIOL F115X--Fundamentals of Biology I (4)--4 credits
      CHEM F103X--Basic General Chemistry (4)
      or CHEM F105X--General Chemistry I (4)--4 credits
   2. Complete the following:
      ENVI F101--Introduction to Environmental Science--3 credits
      ENVI F110--Introduction to Water Quality I: Measurement--1 credit
      ENVI F130--Introduction to the National Environmental Policy Act--1 credit
      ENVI F160--Internship in Environmental Studies--1--2 credits
      ENVI F260--Field Techniques for Environmental Technicians--2 credits
      ENVI F265--Introduction to Methods in Environmental Studies--2 credits
      GEOG F111X--Earth and Environment: Elements of Physical Geography--4 credits

5. Complete 3--4 credits from the following electives:
   BIOL F104X--Natural History of Alaska--4 credits
   BIOL F115X--Fundamentals of Biology I--4 credits
   CHEM F104X--Beginnings in Biochemistry--4 credits
   CHEM F105X--General Chemistry I--4 credits
   DEVS F100--Introduction to Science--4 credits
   FISH F101--Introduction to Fisheries--3 credits
   HLRM F130--Research Field Logistics--2 credits
   NRM F101--Natural Resources Conservation and Policy--3 credits
   RD F250--Grant Writing for Community Development--1--3 credits
   STAT F200X--Elementary Probability and Statistics**--3 credits
   Advisor-approved elective***--1--3 credits

6. Minimum credits required--34--39 credits

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

** Cannot be used for elective credit if used as computational credit.

*** Similar level and subject matter

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)

Environmental Studies
Certificate

Minimum Requirements for Certificate: 34–39 credits 30-35 credits

This program addresses many of the environmental issues influencing Alaska communities and provides basic academic preparation for entry-level vocational environmental careers. The program serves as a steppingstone into science-related associate or baccalaureate programs.

This program may be especially of interest to individuals employed by and/or interested in employment with state, federal or tribal agencies or other groups providing natural resource management services. It is recommended that students have completed a high school lab-based science, biology or chemistry course as well as algebra due to the science focus of this program.

Certificate Program

1. Complete the general university requirements.
2. Complete the certificate requirements.*
3. Complete the following:
   1. Complete one of the following communication courses:
      ENGL F111X--Introduction to Academic Writing (3)
      or ABUS F170--Business English (3)--3 credits
   2. Complete the following:
      DEV/F105--Intermediate Algebra (3)
      or MATH/CS/STAT at the 100 level or higher--3 credits
   3. Complete one of the following human relations courses:
      ANTH F100X/SOC F100X--Individual, Society and Culture (3)
      or ABUS F154--Human Relations (3)
      or other program-approved discipline-based human relations course--3 credits
4. Complete the following program requirements:*  
   1. Complete two science foundation courses:
      ATM F101X--Weather and Climate of Alaska (4)
      BIOL F103X--Biology and Society (4)
      or BIOL F104X--Natural History of Alaska (4)
      or BIOL F115X--Fundamentals of Biology I (4)--4 credits
      CHEM F103X--Basic General Chemistry (4)
      or CHEM F105X--General Chemistry I (4)--4 credits
      GEOG F111X--Earth and Environment: Elements of Physical Geography (4)
      MSL F111X--The Oceans (4)
   2. Complete the following:
      ENVI F101--Introduction to Environmental Science--3 credits
      ENVI F110--Introduction to Water Quality I: Measurement--1 credit
      ENVI F130--Introduction to the National Environmental Policy Act--1 credit
5. Complete 3-4 credits from the following electives:
   ATM F101X—Weather and Climate of Alaska (4)
   BIOL F104X—Natural History of Alaska—4 credits
   BIOL F115X—Fundamentals of Biology I—4 credits
   CHEM F104X—Beginnings in Biochemistry—4 credits
   CHEM F105X—General Chemistry I—4 credits
   DEV 10—Introduction to Science—4 credits
   FISH F101—Introduction to Fisheries—3 credits
   GEOG F111X—Earth and Environment; Elements of Physical Geography (4)
   HLRM F130—Research Field Logistics—2 credits
   NRM F101—Natural Resources Conservation and Policy—3 credits
   RD F250—Grant Writing for Community Development—1-3 credits
   STAT F200X—Elementary Probability and Statistics**—3 credits
   Advisor-approved elective***—1-3 credits

6. Minimum credits required—30-35 credits

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

** Cannot be used for elective credit if used as computational credit.

*** Similar level and subject matter.

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D. ESTIMATED IMPACT

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

Students will be able to complete the course work more rapidly as one (of the three) required core science class (GEOG 111X — 4 credits) will be removed. The curriculum will also become more diverse as students will have more lab science course choices to complete the Foundation Courses requirements.

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E. IMPACTS ON PROGRAMS/DEPARTMENTS:

What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo)

There may be positive impacts on other science programs that offer degrees (e.g. biology, chemistry, geography, geology) as this certificate may directly feed students into them. Also this certificate could form partnerships and share students with other programs such as Rural Development, Tribal Management, and Natural Resources Management. There may be a small increase in number of students attending 100 level core science courses offered through CRCD.

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F. IF MAJOR CHANGE – ASSESSMENT OF THE PROGRAM:

Description of the student learning outcomes assessment process.)
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.

The ENVI Certificate, currently 34 credits, is over the certificate minimum (30 credits) by 4 credits. Thus, the Environmental Studies Certificate is 4 credits above the BOR minimum. The UA President and UAF Provost recommend reducing the credit totals required for Certificates and degrees to the minimums (30 credits for certificates).

Further, as outlined in the ENVI Program Review 2014-15, the program coordinator suggested removing one of the three required core science classes. There are no other certificate or associate degrees that require more than two 100-level Core Science Classes. By reducing the certificate to two science classes, two objectives are met:
1) The certificate is more in line with similar program requirements,
2) The certificate credit load is reduced to 30 credits, and is compliant with recent Provost and BOR suggestions.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
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<tbody>
<tr>
<td>Dr. Todd Radenbaugh</td>
<td></td>
<td>22 - Jan - 2015</td>
</tr>
<tr>
<td>Signature, Chair,</td>
<td></td>
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<tr>
<td>Program/Department of:</td>
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<tr>
<td>Jack Maier</td>
<td></td>
<td>9 Apr 2015</td>
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<tr>
<td>Signature, Chair, College/School Curriculum Council for:</td>
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<tr>
<td>Peter Fain</td>
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<td>4/13/15</td>
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<td>Signature, Dean, College/School of:</td>
<td>CRCD</td>
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CHAIR SIGNATURE OBTAINED FOLLOWING APPROVAL BY FACULTY SENATE COMMITTEE

Signature, Chair, UAF Faculty Senate Curriculum Review Committee

Graduate Academic and Advisory Committee