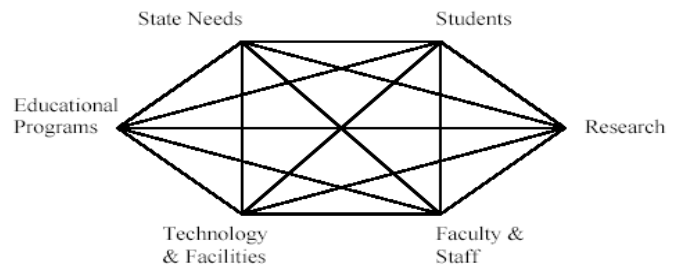


University of Alaska Board of Regents
Program Approval Summary Form
 MAU: University of Alaska Anchorage
 Title: Environmental Regulation and Permitting
 Graduate Certificate
 Target admission date: Fall 2009



How does the program relate to the **Education** mission of the University of Alaska and the MAU?

Who promoted and developed this program. What Development process was followed (inside and outside UAA)

The program was conceived by UAA faculty. Next the faculty polled local environmental professional and state and federal organizations and determined that the industry needed and wanted this program. Following this survey, the faculty of the civil engineering department's Applied Environmental Science and Technology program developed the course curriculum for the program.

Impact on existing programs statewide, and on GERs

The proposed Graduate Certificate will provide the practicing engineers documentation that demonstrates understanding of Environmental regulations and proper application to the permitting and construction of projects. This is graduate level certificate is unique and has no impact on existing state programs or on GERs.

What **State Needs** met by this program.

Include why existing programs are not able to meet needs

Existing related programs are broad in scope and do not necessarily ensure students receive the specific focus of the proposed certificate. A graduate certificate program that focuses on environmental permitting, laws, and regulations would fill a growing need for professionals with knowledge of these key subjects. The National Environmental Policy Act (NEPA) and Clean Water Act (CWA) are integral to environmental work in Alaska. It is also necessary to understand state regulations and laws and the permitting processes that are essential to developing a project plan of the U.S. and Alaska environmental regulatory frameworks. Finally, a capstone course that encapsulates knowledge gained in other classes and stresses regulatory compliance and permitting processes on a project- or industry-specific basis would prepare students for real world environmental work.

This program meets an identified need not already addressed by any existing program. This is accomplished by the addition of a fourth course, *Environmental Permitting Project*. This course is designed to give students, who are proficient with key environmental laws such as NEPA & CWA, an opportunity to apply these laws and relevant regulations to current or proposed science and engineering projects.

What are the **Student** opportunities and outcomes? Enrollment projections?

The Graduate Certificate in Environmental Regulations and Permitting is designed for students employed or seeking employment as practicing professionals in the academic, regulatory, industrial, military, or consulting sectors. Because this program matches industry needs certificate owners will be sought-after environmental regulatory and permitting specialists addressing environmental issues in Alaska and elsewhere.

Students who complete this certificate will be able to:

1. apply the principles and requirements of major federal environmental laws and regulations, including the National Environmental Policy Act (NEPA) and the Clean Water Act (CWA), and State laws and regulations to projects, policy changes and other applicable activities,
2. synthesize practical challenges facing applicants, policy makers, agency personnel and the public in working with Federal and State laws and regulations,

3. understand the environmental data needs and data management options associated with Federal and State permitting requirements for proposed development projects,
4. specify NEPA, CWA and other state and federal permitting requirements for Alaska based projects,
5. understand and anticipate the positions and interests of various Alaska stakeholders (including government policy makers, agency personnel, industry, municipalities, non-governmental organizations and the general public) to facilitate conflict resolution potentially encountered during the regulatory and permitting process.

The availability of this certificate is expected to increase the enrollment in these courses to an average of ten students per course, with an average of ten certificate earned by fiscal year 2013.

Describe **Research** opportunities:

Students pursuing the Graduate Certificate may be inspired to continue their education and participate in research toward a Master of Science in Applied Environmental Science and Technology, Civil Engineering, , or Arctic Engineering. The UAA School of Engineering has active research group in geotechnical engineering, civil and environmental engineering. Most of the research involves the use of equipment currently available in School of Engineering including range of associated apparatus, equipment, and data analysis software

Describe Fiscal Plan for development and implementation:

Expenses and Revenues. Sources and plans to meet expenses

This table provides a brief description of cost and revenues. The result show just over \$2,000 of revenue for each year projected.

	FY 10	FY 11	FY 12	FY13
Program Expense				
Reassignment of one full time faculty to teach one course	\$ 13,000	\$ 13,390	\$ 13,792	\$ 14,205
Program Revenue	(FY 10 Tuition rate = \$316/credit)			
Increases in existing courses *	\$ 5,688	\$ 5,859	\$ 6,034	\$ 6,215
Tuition in new course **	\$ 9,480	\$ 9,764	\$ 10,057	\$ 10,359
Total Revenue	\$ 15,168	\$ 15,623	\$ 16,092	\$ 16,574
Total Balance	\$ 2,168	\$ 2,233	\$ 2,300	\$ 2,369

Faculty and Staff

Robert Reges, Adjunct Professor; Civil Engineering, UAA

B.A., English (Biology minor), University of Alaska Fairbanks

J.D., University of Arizona

Alice Bullington, Adjunct Professor; Civil Engineering, UAA

M.S., Environmental Quality Science, University of Alaska Fairbanks

B.S., Geology, University of Alaska Fairbanks.

Nyree McDonald, Ph.D, Assistant Professor; Civil Engineering, UAA

B.S., Chemical Engineering, Tuskegee University (1994)

M.S., Environmental Quality Engineering, University of Alaska Anchorage (2000)

M.S. and Ph.D., Chemical Engineering, University of Notre Dame (2006)

Technologies, facilities and equipment

The certificate program will be delivered on the main UAA campus using existing classrooms, laboratories, and equipment. No new facilities will be required for the program. All the students have access to the full suite of library services, many of which are available on line (see: <http://www.lib.uaa.alaska.edu/>).

Indirect costs to other units (e.g. GERs)

It is not anticipated that this certificate program will create indirect costs for other units.