Environmental Science Program – Interim Strategic Plan, Spring 2011

The strategic plan for the Environmental Science program at Appalachian State University as presented herein is an interim document in anticipation of an updated University Strategic Plan for 2013 and of the arrival of a new program director in 2012. This document can be treated as a template for a 2013 program strategic plan and as guidance to future program leadership as provided by the academic advisory committee and interim director and staff.

Mission statement
The mission of the Bachelor of Science degree program in Environmental Science at Appalachian State University is to offer a nationally-recognized, top tier degree in which a diverse student body is empowered, through science-intensive, multi-disciplinary instruction and active learning, to make productive contributions towards solving environmental challenges in the Appalachian region, the nation, and the world.

Vision Statement
The vision of the Bachelor of Science degree program in Environmental Science at Appalachian State University is based directly on the mission statement, and outlines the future direction of the program. The five (5) primary areas of focus for our vision can be defined based on our mission statement as follows:

The mission of the Bachelor of Science degree program in Environmental Science at Appalachian State University is (A.) to offer a nationally-recognized degree in which (B.) a diverse student body is empowered, (C.) through science-intensive, multi-disciplinary classroom instruction and (D.) active learning, to (E.) make productive contributions to the solution of environmental challenges in the Appalachian region, the nation, and (F.) the world.

Primary visions from our mission statement:

A. Become a nationally-recognized, top tier Environmental Science B.S. program
B. Encourage diversity within the student body, faculty, and staff
C. Develop a sustainable, science-intensive multi-disciplinary curriculum that leverages the strengths of our faculty and physical resources and that is responsive to the needs of our local community, the region, the nation, and the world
D. Develop a sustainable active learning model that is inclusive of all Environmental Science students
E. Integrate student-centric community outreach activities into the Environmental Science program culture in service to the Appalachian community, region, and nation
F. Emerge as a respected Environmental Science program internationally toward leadership status within the University of North Carolina system and among peer institutions.

The five (5) supporting areas of focus toward realizing the primary visions and mission statement:

G. Establish active placement programs for graduating seniors for admission to reputable graduate school programs and employment in environmental
science-related careers

H. Encourage alumni involvement in program development and support toward an established alumni club and program-specific development and advancement programs

I. Provide an environment that promotes an integrated community of learners among the students, faculty, and staff

J. Establish a sustainable resource model for multi-disciplinary course delivery and active learning support

K. Initiate and maintain a living assessment plan for program accreditation

Strategic Plan

The strategic plan is presented as a multi-faceted list of initiatives that, when pursued by the Environmental Science faculty and staff, act to realize the program mission and vision statements. The list is broken down as related to each primary and secondary area of focus within the vision statement as follows.

To address “A. Become a nationally-recognized Environmental Science B.S. program”:

A.1 Seek external assessment of the program from peer institutions across the nation and strategically incorporate suggested improvements consistent with our mission and vision statements and available and/or projected resources.

A.2 Establish an external advisory board of leaders in industry, non-profit and government organizations, and academic institutions to assist in all pertinent aspects of program design and implementation. The board should have representation from alumni and students.

A.3 Investigate collaborative partnerships with other Environmental Science programs across the globe, including but not limited to faculty and student exchanges, establishment of transfer equivalencies, and shared resources for external funding opportunities. (See F.1)

A.4 Market the program to a national audience through established mechanisms such as targeted mailers and advertisements and through a presence at local, regional, national, and international conferences and symposia. (See F.2)

A.5 Develop an on-campus speaker series by inviting leaders in the Environmental Science to come to campus and speak to students, staff, faculty, alumni, and the community.

To address “B. Encourage diversity within the student body, faculty, and staff”:

B.1 Initiate targeted recruitment of a diverse student body through initiatives including but not limited to established university diversity recruiting practices (such as those sponsored by University Admissions and the Office of Diversity), campus visits to high schools and community colleges and universities, and attendance at diversity-related recruiting events throughout the state and region.

B.2 Encourage and support diversity in faculty and staff recruitment and hiring among related departments within the College of Arts and Sciences and the University.

B.3 Promote diversity awareness among current students, faculty, and staff through participation in university and college-level diversity events, workshops, and courses, and by addressing diversity within the Environmental Science WID and Capstone courses.
To address “C. Develop a sustainable, science-intensive multi-disciplinary curriculum”:

**C.1 Evolve a curriculum model** that leverages the strengths of our faculty and other resources, is sensitive to the scheduling and resource constraints of the students and the institution, and is responsive to the expectations of graduate programs and employers. Also, investigate targeted undergraduate concentrations or certificates.

**C.2 Investigate expansion into graduate programs**, including environmental science-related professional science Master’s programs.

**C.3 Establish an academic advisory board** which works in concert with the external advisory board (A.2) and the program director’s office to satisfy plan items C.1 and C.2 and other related visions and issues.

**C.4 Initiate an Honors program** within Environmental Science affiliated with the University Honors College.

To address “D. Develop a sustainable active learning model that is inclusive of all Environmental Science students”:

**D.1 Investigate collaborative active learning initiatives** with regional, national, and international academic, industrial, and government agencies. Examples include the establishment of an NSF-funded REU program; internship channels with national laboratories, industry, academies of learning, and/or non-profit organizations; and collaborative faculty-driven grant-supported research projects.

**D.2 Develop a “capstone” experience** that focuses on the content and skills necessary for the credible dissemination of scientific investigation in Environmental Science projects. Students who have not been involved in active learning projects during their undergraduate experiences prior to the capstone course will identify and execute a research project.

To address “E. Integrate student-centric community outreach activities into the Environmental Science program culture in service to the Appalachian community, region, and nation”:

**E.1 Identify active community service and service learning projects** and formal programs for students, staff, and faculty in Environmental Science, and encourage participation and leadership roles.

To address “F. Emerge as a respected Environmental Science program internationally toward leadership status within the University of North Carolina system and among peer institutions”:

**F.1 Assist associated departments in establishing and growing international partnerships** toward curriculum-, research-, and/or outreach-based student and faculty exchanges and collaborative research efforts with international universities or other agencies. (See A.3)

**F.2 Promote the program internationally** by actively seeking program-level relationships with international partners and by disseminating the program through electronic media and conferences aimed at global environmental issues and program globalization. (See A.4)

To address “G. Establish active placement programs for graduating seniors for admission to reputable graduate school programs and employment in environmental science-related careers”:

**G.1 Formalize an assistance program for graduate school placement** for grad-
G.2 **Formalize an assistance program for employment placement** for graduating seniors based on the external advisory board, internship channels, and faculty and staff connections in collaboration with University Placement.

To address "H. Encourage alumni involvement in program development and support toward an established alumni club and program-specific development program":

**H.1 Establish an Alumni Club** and encourage active participation

**H.2 Work with University and College Advancement** to integrate fund-raising initiatives with the Environmental Science program.

To address “I. Provide an environment that promotes an integrated community of learners among the students and faculty”:

**I.1 Provide and maintain an on-campus “home” for students** by seeking and acquiring necessary space for the student body for academic and social activities and interactions.

**I.2 Seek avenues for student recognition within the University and at the national and international levels.** For example, form Appalachian Awards for students, and link them to national agencies such as the Association for Women in Science (AWS), Society of Environmental Toxicology and Chemistry (SETAC), American Geophysical Union (AGU), and others.

**I.3 Promote a student-driven Environmental Science Club** by providing space and faculty and staff support through efforts such as investigating funding sources from national organizations.

**I.4 Encourage faculty and staff development** within the Environmental Science program and related programs and departments.

To address “J. Establish a sustainable resource model for multi-disciplinary course delivery and active learning support”:

**J.1 Seek faculty and staff positions, collaboratively across departments** and within the Environmental Science program within the College, to fulfill this strategic plan and other identified needs consistent with our mission and vision statements.

**J.2 Pursue program-level external funding and foundational support** by executing strategic plan items A.3, A.4, D.1, E.1, F.1, H.2, I.2, J.3, K.1 with a focus on progressing all program visions in a prioritized approach and with respect to the program mission.

**J.3 Develop and maintain a prioritized budget** as identified by the strategic plan, to be managed in good faith by the program director’s office and under the shared governance of the academic and external advisory boards.
To address “K. Initiate and maintain a living assessment plan for program accreditation”:

**K.1 Develop, maintain and utilize program and capstone assessment plans**, including mission and vision statements and a strategic plan, within the adopted university-level assessment systems toward continuous improvement of the program and Environmental Science courses and in support of university and program accreditation.

**Prioritization of the Strategic Plan**
To offer guidance on the execution of the strategic plan going forward, the strategic plan initiatives are prioritized as determined by the existing bodies of shared governance and the program director’s office. Although all items within the strategic plan represent programmatic goals, the below list (given in no particular order) should be given precedence during budget and resource allocation:

- **A.1** Seek external assessment of the program
- **A.2** Establish an external advisory board
- **A.3** Investigate collaborative partnerships
- **B.3** Promote diversity awareness among current students, faculty, and staff
- **C.1** Evolve a curriculum model
- **C.2** Establish an academic advisory board
- **D.1** Investigate collaborative active learning initiatives
- **D.2** Develop a “capstone” experience
- **F.1** Assist associated departments in establishing and growing international partnerships
- **H.1** Provide and maintain an on-campus “home” for students
- **I.1** Seek faculty and staff positions, collaboratively across departments
- **I.2** Pursue program-level external funding and foundational support
- **I.3** Develop and maintain a prioritized budget
- **J.1** Develop, maintain and utilize program and capstone assessment plans