Program Summary

Summary Title: Environmental Science Program Review: BS and MS
Applicable Programs: 03.0104 Environmental Science: Bachelors
03.0104 Environmental Science: Masters

Accreditation: Not Associated with an Accreditation Review.

Last Review Year: 2002

Status: APPROVED

Major Changes

A. The greatest change in the department has been the development and roll-out of an online GIS certificate program at both the undergraduate and graduate levels.

B. Growth of the program at the Emerald Coast (Fort Walton Beach area) Campus through the offering of the Environmental Policy specialization of the BS program.

C. Major changes related to the previous program review.

1. Recommendation: The department is woefully understaffed. It should add at least two faculty lines.
   PROGRESS TO DATE:
   - One new faculty line was awarded to the department for the 2004-05 year during the budget hearings in Spring 2003. A coastal geomorphologist and hurricane-impact specialist filled this line in Fall 2004.
   - One line (a biogeographer) was added to the Ft. Walton Beach campus in 2005-06, but this did not alleviate the need for additional staffing at the main campus.
   - Two faculty members left UWF in 2007. Only one of those positions was refilled.
   - We are now essentially back to where we were prior to the 2002 program review (and essentially where we were in 1999!!)

2. Recommendation: There is over-reliance upon adjunct instructors. Perhaps some adjunct positions could be converted to instructor lines.
   PROGRESS TO DATE:
   - One adjunct instructor who taught multiple courses was upgraded to a full-time instructor. This added stability to the department in that this faculty member spent more time in the department and was available for advising as well as assisting on research projects. However, now that we expanded our offerings at the Emerald Coast campus, this faculty member (a Ft. Walton Beach resident) prefers to reduce his main campus duties and redirect them to Emerald Coast.
   - Graduate students have been assigned to teach laboratory sections, which were formerly adjunct-taught.
   - Our first M.S. graduate has been hired as full-time instructor to cover classes taught by the two faculty who left in 2007 as well as to advise students.
   - Additional use of adjunct instructors has decreased, the present levels of use of adjunct faculty, most experts in their specialized fields, is acceptable.
3. Recommendation: The department is woefully short on space.

PROGRESS TO DATE:
- As a result of two separate studies by the facilities-use teams at UWF, improvements to departmental space have been made.
- First, a 1400-ft² room on our floor (Room 221, Building 13) was reassigned to our department, increasing our space from 4400 ft² to 6800 ft². The space was converted to a large classroom plus a 500-ft² hydrogeology lab (used for both research and teaching purposes).
- Other renovations include creating two new faculty/staff offices and one teaching/research lab (stocked with six state-of-the-art computers) to be used for upper-level GIS courses and research projects.
- There is still a shortage of space for graduate students, a student lounge, offices for adjunct faculty, coastal research, etc. The third floor of the building houses the Dept. of Physics which is slated to move into the new Science and Technology Building in early 2010. We have been allocated half of the third floor, which we plan to use for office space, one climatology/dendrochronology lab, one map work area, graduate student cubicles, a department library, and a student lounge.

4. Recommendation: The department should investigate offering coursework necessary to train Registered Professional Geologists (RPGs), perhaps via the offering of a Minor in Geology.

PROGRESS TO DATE:
- We have contacted the state agency (FL Board of Professional Geologists) responsible for licensing professional geologists, but it has been extremely negligent in responding to us.
- Nonetheless, to offer additional geology courses or to offer a minor will require more expertise. To offer the required 10 courses in Geology requires a minimum of two full-time geologists, plus adjunct instructors.
- Due to the departure of our one full-time geologist, we relied wholly upon adjuncts in 2004-05. A replacement geologist was hired for the 2005-06 academic year, but we still are understaffed to offer sufficient geology courses.
- In spite of the recommendations of the 5-year-review team, we in the department are not convinced that the training of PGs (professional geologists) will lead to great increases in enrollment.

5. Recommendation: The department should offer a master's degree. There is a demand for this professional degree. Also, graduate students would be available to teach the various lab sections, thereby freeing up faculty time as well as dollars spent on adjunct instructors.

PROGRESS TO DATE:
- In Spring 2003, we prepared a Request to Explore document, which was approved by the UWF Board of Trustees Academic and Student Affairs Committee in May 2003. In Summer 2003, we prepared course and program CCRs, which were approved by the Faculty Senate in February 2004. We received February 2004 approval from the Board of Trustees to implement a graduate program in Fall 2004.
- The inaugural graduate class in Fall 2004 consisted of 14 students (plus two "special" graduate students not officially listed as EVR graduate students). By Fall 2005, there were about 27 graduate students, although some were professionals attending only part-time.
- In terms of teaching, graduate students on departmental funding (GAs and GTAs) were assigned to assist and teach, respectively, lab sections of various lower- and upper-level courses. Our reliance on adjunct faculty decreased accordingly.
- The numbers of graduate students have leveled off since 2005. We are attracting students from the local area as well as other parts of Florida, but we are not competitive in attracting other students, perhaps because of more lucrative assistantship offers from other universities.

6. Recommendation: At the undergraduate level, the department should investigate greater flexibility among required courses, thus allowing students to focus upon specific academic subfields (e.g., geology, GIS, geography, coastal studies) as well as electives in other fields.

PROGRESS TO DATE:
- A new, more flexible undergraduate curriculum went into effect in Fall 2007 (and is still in effect today). Instead of requiring specific courses, we now require students to choose from select groupings.
- The new curriculum has worked fairly well. However, students have been avoiding some of the tougher courses if easier alternatives are available.

7. Recommendation: The department should list itself in professional academic directories.

PROGRESS TO DATE:
The department is now listed in the *Guide to Geography Programs in North America* as well as the AGI *Directory of Geoscience Departments*. Costs for this membership have been borne out of the meager operating budget of the department.

**Strengths**

- Mission and vision which exactly mirror the University's
- Teaching is seen as primary
- Geodata center and GIS certificate programs
- Online continuing education programs (revenue source)
- Development of online delivery for individual courses
- Rigorous outcomes assessment
- Level of research, publication, and grant activity
- External research funding record
- Applied nature of research linked to community/regional environmental concerns
- Service record
- Communication/corroboration with other UWF departments/units
- Rankings in % of total headcount, headcount increases, margin of cost recovery
- Faculty camaraderie, youth, and enthusiasm
- Percentage of full time professors on tenure track appointments
- Dean and central University administration support
- Effective articulation strategies
- Web site

**Weaknesses**

- Current faculty size and expertise not aligned with major curricular offerings
- Faculty turnover rate
- Environmental policy faculty expert gone and not replaced
- Number of curriculum tracks for undergraduates
- Lack of focus in M.S. curriculum
- Lack of departmental research standards and expectations for promotion/tenure
- Rankings in SCH/full time faculty and average class size
- Perceptual inconsistency between Dean and Department about teaching vs research
- Online oceanography program perceived as low in quality
- Emerald Coast program low in enrollment and efficiency

**Recommendations**

- Consolidate B.S. curriculum tracks from three to two
- Concentrate on and actively promote GIS expertise
- Vest the online oceanography program entirely in EVR
- Close the Emerald Coast program and return the faculty to the main campus
- Create other certificate programs like the GIS program
- Develop more online course offerings to alleviate faculty and classroom shortages
- Develop standards of research productivity for promotion and tenure consideration
- Explore development of an environmental research center for the department
- Establish specific agreements with other departments/colleges for collaborative research
- Develop a link on the departmental homepage highlighting research/outreach activities
- Consider continuing departmental newsletters to better "market" EVR

**Additional Comments**
The Academic Learning Compact for the Environmental Science BS is available at the following URL:
http://uwf.edu/cutia/ALC/Env_Studies_ALC.pdf

The Confirmation of Processes is available at the following URL:
http://uwf.edu/academic/datafiles/CoP_Environmental_Science.pdf