

EXECUTIVE SUMMARY  
*Academic Program Review*  
*College of Arts and Sciences*

DEPARTMENT/PROGRAM  
**Department of Environmental Science &  
Environmental Management Program**

EXTERNAL REVIEWERS  
Professor Gail Kineke, Boston College  
Professor Michelle Marvier, Santa Clara University  
Professor Alan Yeakley, Portland State University

CAMPUS VISIT  
April 10-12, 2013

The review team read the self-study written by the faculty in the department; reviewed the curriculum, course syllabi and evaluations; conducted class visits; interviewed faculty, students and staff; and met with the Dean, Associate Deans and other relevant members of the campus community. Prior to their visit, the reviewers were provided with USF's Vision, Mission, Values Statement, the department's self-study and other university materials.

- 1. How did the external review committee rate the quality of the program – excellent, very good, good, adequate, or poor? How does the program compare with benchmark top-tier programs nationally? Please provide a brief rationale for the external review committee's rating.**
  - The entire Environmental Science Department is very collegial with “extremely dedicated faculty” who are “passionate about the students and environmental science.” Scholarly productivity of the faculty is very good considering the teaching load.
  - The review committee rated the Bachelor of Science (BS) in Environmental Science program as VERY GOOD. “The program is at the level one would expect to find at a top tier liberal arts college or university and has the potential to become an outstanding or excellent program.” The curriculum has “thoughtful course sequencing and integration” and “excellent field experiences.”
  - The reviewers rated the Master of Science (MS) in Environmental Management program BETWEEN GOOD AND VERY GOOD. The program is currently at an “acceptable level” for the type of program one would expect to find a top-rated liberal arts institution. It “successfully attracts a large number of students, engages a broad adjunct faculty community, and significantly extends the scope of environment education and employment outcomes for USF students.” However, “there are few notable areas where improvements could be made.”
- 2. What are the most important general issues that emerged from the external review process?**
  - The Lo Schiavo Center for Science and Innovation will greatly enhance student learning and alleviate many space problems.
  - The Review team emphasized it would be in the Department's best interest to generate “more open and more regular” communication with the Environmental Studies program, especially given the College's move toward sustainability.

BS in Environmental Science:

- The curriculum is “well-planned and rigorous,” but could be expanded in a few areas.
- Students are happy with the small classes, advising, and mentoring.
- The instrumentation is state-of-the-art and field experiences are engaging.

- The assessment plan is reasonable and learning outcomes are clear; however, feedback and training is needed.

MS in Environmental Management:

- The program receives an impressive number of applications and has an acceptance rate of 30%.
- Students applied to the program because of USF's strong reputation, scheduling flexibility, the city, and the joint MBA/MSEM program.
- The director is "enthusiastic and engaged" and the new administrative director is "creative" and an important addition.
- The full-time faculty members in the Environmental Science Department are reasonably positive about the program, but it is not their primary focus.
- The program should examine having classes on the weekdays in order to increase engagement with the full-time faculty and enhance curricular development.
- Adjunct faculty members are impressive and provide students with broad experience; however, mentoring is needed for some adjunct faculty.

**3. What specific recommendations for improving the program's quality has the external review committee made to the Dean?**

The committee divided their feedback into five main areas: curriculum, faculty, facilities, support staff, and relationship with other academic units.

*Curriculum:*

- BS in Environmental Science
  - The curriculum is very strong in ecology and chemistry but would benefit from additional courses in the geosciences, spatial and landscape analysis, and geographic information systems (GIS).
  - Reviewers recommended including "legal, political, economic, and other social dimensions of the in field" in the undergraduate curriculum.
  - Some students agreed that additional department support for career advising was needed. Reviewers commented that with "growing concern about employment options for today's college graduates, this is an area that merits further examination."
  - The assessment plan is reasonable and learning outcomes are clear. The department needs to make assessment meaningful and administration needs to give timely feedback and provide training and assistance.
- MS in Environmental Management:
  - Reviewers recommended scheduling some classes on weekdays to increase graduate student engagement and to allow for more curriculum development.
  - Some adjunct faculty members need mentoring.
  - Consider hiring a dedicated part or full time staff person to work with graduate students.

*Faculty*

- Consider providing support for associate professors to keep them on a positive trajectory to full.
- Promote full-time faculty engagement in the graduate program and mentoring for part-time faculty.

*Facilities*

- The new building offers an opportunity to "re-think" space in Harney. Offices, research laboratories, and community space will be inadequate in Harney Science, even after Lo Schiavo Science opens.
- Lab renovations for new hires need to be completed faster and delays need to be considered when

faculty members apply for tenure and promotion.

- The graduate program lacks graduate student workspace and dedicated classroom facilities.

#### *Support Staff*

- The Department needs a laboratory coordinator and tech support.
- The graduate program needs a full-time administrative assistant to assist with the large number of applications and day-to-day logistics.

#### *Relationship with Other Academic Units*

- Communication between other science departments and the Environment Studies program needs to be strengthened.
- The Environmental Science Department has a good opportunity to be central to sustainability at USF and nation-wide through a stronger working relationship with Environmental Studies.

#### **4. In the opinion of the external review committee, is the program following the University's strategic initiatives?**

##### *a) Recruiting and retaining a diverse faculty of outstanding teachers and scholars.*

The Environmental Science faculty was praised for their dedication to teaching and their research productivity. The reviewers did not comment on ethnic or gender diversity, but did note that the faculty is "well balanced" in terms of seniority and full-time to part-time appointments.

##### *b) Enrolling, supporting and graduating a diverse student body that demonstrates high academic achievement, strong leadership capabilities, a concern for others, and a sense of responsibility for the weak and vulnerable.*

The reviewers did not comment on the diversity of the students in the program. They did note "that without exception every member is engaged and working hard to deliver an excellent experience for the students."

##### *c) Providing the environment necessary to promote student learning in the program.*

The reviewers commented that the curriculum for the undergraduate program is "well-planned and rigorous" and undergraduate students are satisfied with the advising and mentoring they received for the faculty. The graduate students in Environment Management "were generally positive about their overall experience at USF, and most spoke clearly about their project topics and career goals."

#### **5. In what way is the program contributing to the goal of making the University of San Francisco a premier Jesuit, Catholic urban university with a global perspective that educates leaders who will fashion a more humane and just world?**

The reviewers emphasized the important role the department plays in an social justice issues, such as sustainability: "The Environmental Science Department is situated at a crucial interface between the natural sciences, social sciences, and humanities, and can provide educational and scholarly leadership in addressing many of the wicked problems that face humanity today."

#### **6. What is the timetable for the response to the external review committee's recommendations for program improvement? What can the Office of the Provost do to appropriately respond to the review?**

The Department and the Dean will meet during the Fall 2013 semester to create an action plan and discuss resources. The Dean's Office and/or Office of the Provost may be asked to support the following activities: 1) curriculum changes for both programs, 2) adding support staff for both programs, 3) departmental space, 4) building stronger relationships with other academic programs, especially Environmental Studies, and 5) mentoring of part-time faculty and scheduling of courses in the graduate program.

**7. What general comments or issues, if any, are crucial to understanding the reviewers report?**