Center for Environmental Programs
Program Review Committee Report

The Center for Environmental Programs (CEP) prepared a self-study following program review guidelines. An external review team consisting of Professor Ian A. Worley (Director of the Environmental Program, University of Vermont) and Associate Professor Gigi Berardi (Chair of the Department of Environmental Studies, Western Washington University) visited the campus on January 25-27, 2004. They reviewed the self-study documents, interviewed unit personnel and university administrators, and submitted a 31-page external review report of February 28, 2004. The liaison for the Program Review Committee (PRC) read the self-study and the external review, and met with the external reviewers (January 25, 2004), the CEP Director (March 3, 2004), the CEP faculty and staff (March 5, 2004), and the Advisory Committee (March 17, 2004). The PRC then jointly reviewed all of the materials and discussed the unit with the dean (March 31, 2004). This document reflects the PRC’s findings and recommendations.

SUMMARY OF THE SELF-STUDY

Mission and history

The CEP offers two majors—a B.A. degree in Environmental Policy & Analysis and a B.S. degree in Environmental Science. The CEP supports the General Education curriculum with three classes (ENVS 101, 201, and 301). The CEP sponsors symposia, seminars, forums, internships, cooperatives, research and service projects, and other activities designed to enhance the educational experiences of students, and to contribute to the economic success and environmental quality of Ohio for its citizens. In accordance with the philosophy of liberal education, the CEP strives to promote scientific literacy, the development of a personal environmental ethic, and the recognition and realization of personal values with respect to the world surrounding us.

The CEP was founded in 1968 as a unit that reported directly to the Vice President for Academic Affairs. The Center eventually developed three degree programs—environmental science, environmental policy & analysis, and environmental health. In 1984 the environmental health program was moved to the College of Health & Human Services, and the CEP joined the College of Arts & Sciences. The CEP offers both a major and a minor in Environmental Science (B.S.) and in Environmental Policy & Analysis (B.A.). In addition, the CEP offers a minor in Environmental Education through the College of Education & Human Development. Since 1996, the CEP has seen a large amount of faculty and staff turnover, has seen slight increases in the number of full-time faculty and slight reductions in
the number of part-time faculty and staff. Last year the program relocated into available space in Shatzel Hall after 13 years at the College Park Office Building.

The CEP presently has a full-time director (joint-appointment in Geography), a part-time assistant director (60% in the CEP), three tenure-track faculty with joint appointments (33%, 50%, and 75% time in the CEP), two full time instructors, a part-time internship coordinator (15% time in the CEP), and a full-time secretary. The CEP used to utilize graduate teaching assistants, but does not do so at this time. There is one graduate research assistant (25% FTE).

**Unit description**

1. **Program identification.** The CEP is an interdisciplinary program that works closely with (a) academic departments in the College of Arts & Sciences related to the two majors and minors, (b) the College of Education and Human Development and related grant-funded science education programs (e.g., TAPESTRIES, COSMOS, ASTER, EXCITE, etc.) in support of the minor in environmental education, and (c) numerous governmental and non-profit organizations that support the required internship experience and undergraduate research, including the Old Woman Creek Natural Estuarine Research Reserve (U.S. Dept. of Commerce), Toledo Metropolitan Area Council of Governments (TMACOG), and the Portage River Basin Council (a committee of TMACOG). The CEP also supports the National Student Exchange Program, the Washington Center Internship Program, the university’s exchange program with Guelph University (which includes interaction with the Canadian Studies Program) and the new environmental track of the International Studies major.

2. **Faculty resources.** The CEP relies on full-time instructors and lecturers, part-time instructors, adjunct faculty who teach cross-listed courses (but have no formal appointment to the CEP), and tenured/tenure-track faculty with joint appointments. Over the past seven years, the total number of faculty have increased and there has been a shift toward a larger number of full-time lecturers/instructors and joint appointments, versus part-time appointments. The faculty workload is variable, given the specific type of appointment. Service requirements are relatively high, especially for joint appointments (who carry additional service requirements from their tenuring unit). A small number of course reductions have been negotiated for projects such as the Woodlot Restoration program or Women in Science program. The self-study identified two significant problems related to faculty resources: (1) pre-tenured joint appointments have faced certain problems related to adequate recognition for outreach, high service requirements, and the value of applied research projects, which are central to the mission of the CEP, and (2) retirements and other faculty departures have jeopardized the course offerings of many courses required for the two majors. In many cases the host department has either not been successful replacing those faculty, or has chosen to hire faculty uninterested or unable to teach those affected courses. The CEP has not been successful in its requests for additional joint appointments, especially in biology and the Center for Policy Analysis & Public Service.
3. **Graduate assistant resources.** The CEP used to support a small allocation of graduate assistants to teach lab sections of ENVS 101. Starting in 2002, the funding allocations have not been adequate to support graduate teaching assistants. There has been funding for one 0.25 FTE research assistant.

4. **Staff resources.** For the past seven years, the CEP has supported a full-time director, full-time assistant director, and full-time secretary. As a consequence of the budget situation, the assistant director spends 0.40 time in the College office. The duties of the assistant director include academic advising, recruitment, grant writing, editing publications, and outreach activities. The CEP also supports an internship coordinator (0.15 time of the campus recycling coordinator).

5. **Student resources.** The self-study reports a steady decline in the number of majors, from a high of 241 majors (sum of both majors) in 1996 to 119 in fall, 2002. (The external reviewers concur that this decline corresponds to national trends among environmental programs in higher education, and discussed reasons why, in their opinion, this trend is not an area of high concern.) Although the total number of majors has decreased, the numbers of degrees conferred has increased the past two years. Between 1996 and 2002, the total SCH has fluctuated between 1868 and 2519 and the SCH/FTE has fluctuated between 150-262 per semester. Most classes are small (35 students maximum). Most students are recruited to the program, in many cases after arriving at the University. The CEP puts a great deal of faculty/staff resources into recruitment and advising activities, such as Preview Day, President’s Day, Major Mania, outreach trips to local schools, newsletters, production of a recruitment video, participation in college fairs and conferences with secondary school teachers, and sponsored social events. There are three student groups advised by CEP personnel—the Environmental Action Group, Environmental Service Group, and Epsilon Kappa Theta (a national honor society).

6. **Physical Resources.** In August 2003, the CEP relocated to Shatzel Hall after 13 years in temporary space in the College Park Office Building. The program is now more accessible to students; however the CEP has less physical space than previously. The CEP has found it necessary to downsize its computer lab, resource room, and certain offices from five rooms at College Park to two rooms in Shatzel Hall. In addition to physical space, the CEP has a GIS lab (four computers, plotter, and scanner), field equipment, and owns and operates one vehicle. The contents of the former Curriculum Resource Room (a lending library related to environmental education) have been relocated to the Jerome Library or the Rotary Nature Center (Bowling Green Parks and Recreation Department). The contents of the former Environmental Resource Room (a lending library related to the environment) is currently being split between the Libraries, existing space in Shatzel Hall, and faculty offices.

7. **Financial Resources.** The operating budget over the past seven years has fluctuated from $15,817 to $49,744. The range might be an accounting anomaly, because the budgets have actually been close to flat-funded in the low $30,000 range throughout this interval. The CEP supplements its budget with grants and a Foundation account. Recently,
for the first time, the CEP contributed towards the start-up costs of a joint appointment. Grant activity for joint appointment faculty is reported elsewhere (in the program review documents for the host departments). The CEP has submitted six external grant proposals and received two ($99,683 total). The CEP has also received three Partnership for Community Action awards. The Foundation account has been used to support major purchases, research activities, and student scholarships (the CEP awards two major and several smaller scholarships each year).

Self-evaluation

1. Quality. The quality of several different components of the program was evaluated: faculty, students entering the program, curriculum, assessment of student learning outcomes, and service. This section will only briefly review these different components, focusing on the strengths and weaknesses identified in the self-study. Finally, it should be pointed out that faculty quality cross-cuts all of the attributes listed above, because faculty quality is measured in teaching, research/scholarly productivity, and service. The evaluation of faculty quality in the CEP is more difficult than many academic units because of the mix of joint appointments and non-tenure track positions.

One of the clearest strengths of the CEP is its contribution to the teaching mission of the University. Student teaching evaluations are very high, with seven-year average composite scores of 1.8-2.2 on a 5 point scale (1 = highest). The CEP articulated student learning outcomes for both of its majors during 2001. Both majors prioritize experience-based learning, communication skills, and analytical skills. There is a history of field-based instruction, service-learning projects (such as the Woodlot Restoration Project), mandatory internships, and a capstone course. Another measure of teaching quality has been the level of commitment of CEP faculty towards science education programs (e.g., TAPESTRIES, COSMOS, PCC, and EXCITE). The CEP also has a record of significant contributions towards the University’s General Education Program and the Honors Program, and is an active participant in the recent values initiative. The CEP has adjusted its curriculum to changes within the profession, such as adding courses in environmental planning and environmental applications of GIS to the curriculum, and increasing its emphasis on technical writing and interpersonal communication skills.

Another strength of the program includes overall faculty research and scholarly productivity. An evaluation of the data (Table 10) shows that between 1996-97 and 2002-03, the five CEP faculty contributed between 2 and 10 conference presentations (average of 6.8 per year or 1.4 per faculty/year), between 2 and 6 refereed journal publications (average of 3.3 per year or 0.7 per faculty/year), between 0 and 5 professional reports or proceedings (average of 1.4 per year or 0.3 per faculty/year), and received between 1 and 3 funded external grants (average of 2.1 per year or 0.4 per faculty/year). More significantly, all of the faculty are regular contributors to the research productivity of the unit. Although difficult to assess quantitatively, it appears much of the research is interdisciplinary in nature, in accord with the goals of the unit.
The self-study identifies the following as weaknesses with respect to quality: (1) the large credit hour load of both majors (90-98 credit hours in Environmental Science, and 83-93 credit hours in Environmental Policy & Analysis), (2) the difficulties of academic advising (because of the large credit load of the majors and the individual areas of emphasis), (3) the course pool (both because of the availability of courses required for the majors, and because of duplication or overlap among the courses), (4) the lack of an interdisciplinary field methods or laboratory course, (5) the individually designed areas of emphasis (for various reasons—because the students may not understand the background they need, or because the students may not be able to realistically achieve the program they desire, or because employers may not fully recognize or value the outcome), (6) the lack of a graduate degree program, and (7) a heavy service load, particularly for joint-appointment faculty.

2. Demand. Demand includes the following components: instructional demand, employment demand, and demand for service programs. Instructional demand falls into two categories: in support of the University’s General Education Program and Honors Program, and in support of majors. For the former, the CEP offers nine sections of ENVS 101 each semester, including one evening section. Several sections are part of the values initiative. Typically one section of ENVS 201 and ENVS 201H are offered each semester. The self-study states that there has been some drop-off of demand for these courses, but demand appears to be time dependent. The upper level courses support the ENVS majors. Overall, the CEP has 4.58 FTE faculty, and supports about 120 majors, with 20-30 majors graduating each year. Few students arrive at the University planning to major in ENVS, but are instead recruited to the CEP through the introductory courses or through exposure to various outreach efforts.

The CEP documents employment demand through periodic alumni surveys, tracking the employment market, or (indirectly) through placement of interns. The available data suggests a relatively high level of alumni success and satisfaction.

Demand for service programs is difficult to quantify, but is evidenced by the CEP’s long-time association with local government agencies (e.g., TMACOG, Wood County, Old Woman Creek NERRS). The mandatory internship is itself a significant contribution to the demand for service programs. Successful placement of 20-30 interns each year documents both the demand for and the success of this involvement.

3. Centrality to the University’s mission. The CEP reflects the University’s mission particularly in respect to (1) offering distinctive undergraduate programs with an emphasis on interdisciplinary environment studies and environmental education, (2) supporting goals for an informed citizenry by enhancing scientific literacy and environmental awareness, (3) offering ways to achieve an important component of personal values and ethics, (4) offering experience-based learning, and (5) offering service learning.

4. Competitive advantage or uniqueness. The CEP attracts a student clientele primarily from northern Ohio, either the Cleveland area or small towns. Many students are interested in environmental stewardship, sustainable agriculture, or watershed management
and restoration. Some are attracted to the specific skills and opportunities offered through the ENVS degree programs (e.g., GIS and field experiences), others to the flexibility of the area of emphasis (which might contribute to a double major), and others to the internship experience and/or the service-learning component. The self-study notes that the degree programs do not actively promote research careers, which many other departments do—this creates a niche at the University between active career-driven learning, service learning, and critical thinking in lifestyle decision making. The self-study also notes that finding a niche between such existing programs creates concerns about duplication and overlap.

5. Financial considerations and adequacy of resources. The self-study does not report any concerns with financial resources, stating that external funding is sought to augment operating budgets as needed. A greater concern is physical space related to the move to Shatzel Hall. The CEP values its new location and space, but lost significant space as a result of the move.

Unit planning

1. Goals and strategies, implementation timetable. The self-study identifies the following goals:

Goal 1: To strengthen and streamline the environmental science curriculum. This would involve reduction in the total number of credit hours without requiring a minor, greater focus in the “area of emphasis,” an increase in the geology course component, review of the CS 100/101 requirements, review of the statistics course component, review of the course pool for relevance and availability, possible restoration of physics and chemistry courses to the curriculum, agreements with related departments to maintain the numbers of adjunct faculty, and the addition of an interdisciplinary field/laboratory class to the major. The timetable is 3-4 years.

Goal 2: To strengthen and streamline the environmental policy and analysis curriculum. This would involve reduction of the total number of credit hours without requiring a minor, greater focus in the “area of emphasis,” review of the CS 100/101 requirements, review of the statistics course component, review of the course pool for relevance and availability, possible restoration of political science and philosophy courses to the curriculum, creation of a joint appointment with history, agreements with related departments to maintain the numbers of adjunct faculty, and addition of an interdisciplinary field/laboratory class to the major. The timetable is 3-4 years.

Goal 3: To establish and equip an environmental science laboratory (ecology, geology, meteorology, and GIS), by first sharing temporary space in Overman Hall with physics, and later by acquiring a designated space in the new science building. The timetable for the temporary lab is fall semester 2006.

Goal 4: To revise the merit policy, by creating a committee to study the issue and by soliciting input from the advisory committee and (for administrative staff) from the staff.
**Goal 5:** To develop a promotion and tenure policy for the CEP that reflects the different expectations of collaborating departments for joint appointments, or by becoming a tenure-granting program. These will be accomplished by forming a faculty committee, soliciting input from the advisory committee, and ongoing discussions with the dean. A decision about which approach to take is scheduled for fall semester 2006.

**Goal 6:** To develop a Master of Teaching (MAT) degree program in environmental education, by reviewing current faculty workloads, soliciting input from the advisory committee, and ongoing discussions with the Dean of the Graduate College. The timetable for this is approximately 5 years.

2. **Relationship to college and university planning.** The six goals are consistent with the Academic Plan and planning within the College of Arts and Sciences for increased collaboration with departments and with the College of Education and Human Development.

3. **Questions for the external reviewers.** The self-study asks the external reviewers to comment on the proposal to become a tenure-granting unit, particularly the values of eliminating joint appointments, and thus having more environmental focus to faculty research activities. Finally, the self-study invites comment about proposed curriculum revisions.

**SUMMARY OF THE EXTERNAL REPORT**

**Overview**

The external reviewers completed an exhaustive review of the Center. The external report is too lengthy (31 pages) to fully summarize here, but should be retained by the CEP for future discussion. Among other things, the report provides a valuable, historical overview of environmental studies programs nationally. The report also discusses the philosophical background of interdisciplinary programs, draws useful distinctions among them (such as the difference between interdisciplinary and multidisciplinary), and discusses the centrality of research to any interdisciplinary program. One very significant section discusses whether or not faculty are serving as adequate role models to the students by incorporating interdisciplinary concepts into their own teaching and research methodologies. These are important observations that directly reflect on the CEP’s mission statement and strategic goals. The lengthy evaluation of the CEP’s mission statement should provide the starting point for future planning and programmatic review, such as during the regular faculty and staff retreats recommended by the external reviewers.

**Strengths**

The external report is highly laudatory of the CEP. One of the obvious strengths of the CEP is its longevity—originating in the 1960’s as one of the first such programs in the United States and thriving to this day. This simple fact in and of itself suggests a highly dedicated
group of individuals (faculty, staff, students, and alumni), with the enthusiastic support of the administration. The external reviewers clearly rank the CEP as one of the best environmental programs in the United States.

Among the specific strengths mentioned in the report are the following: (1) the wisdom of history and accumulated experience over time, (2) a supportive advisory committee, (3) committed and dedicated faculty that offer courses that reflect their specializations, (4) productive faculty who comprise a learning community, (5) small class size, (6) excellent existing capstone courses, (7) place-based interdisciplinary courses, (8) diversity of areas of emphasis or study, (9) a high level of student satisfaction, (10) central location, (11) an innovative teaching environment that involves field-based learning, and (12) dedication to continuous assessment.

Although the external reviewers express overall satisfaction with the CEP, they note that the CEP has been through significant change and turn-over, which has led to a number of very positive steps: selection of a new director, successful promotion and tenure of several faculty, successful hiring of new faculty, and increasing the numbers of full-time faculty versus part-time employees. In the words of the external reviewers, these positive changes have ushered in a period of needed stability, which is an opportunity to re-evaluate the program and make significance improvements. The perceived needs, concerns, or weaknesses discussed below should be seen as opportunities for further growth.

**Weaknesses or Concerns**

The external report should be a valuable document for the faculty and staff in the CEP. The report frankly discusses different ways of doing things and alternative choices. The report fairly notes that, when faced with certain decisions, reasonable and respectable choices were made, and the CEP went forward as a successful program. Although the external reviewers did not specifically say this, the implicit lesson here is that there are reasonable alternatives which deserve study.

The external reviewers expressed disappointment that the self-study is not a strategic planning document, with articulated specific goals that have designated deadlines and measurable benchmarks for success. In addition, the existing mission statement and goals are not coherent and self-consistent: for example, environmental research is a goal but not a mission, and similarly service and outreach are goals but not missions. The external reviewers in several parts of their report characterize the CEP’s mission statement and goals as “eclectic.” The external reviewers believe the existing mission statement and goals are too focused internally on the teaching mission of the CEP. They note repeatedly the centrality of a research mission to the success of all interdisciplinary programs. The external reviewers discuss at length the merits and demerits of alternative approaches to a research mission–one approach being a centralized research agenda for the entire Center versus the alternative approach of a decentralized portfolio of individual research agendas representing the interests of the individual faculty. This discussion deserves a great deal of attention.
The external reviewers agree with the self-study that curricular reform is necessary. There is the need for (1) reducing the total credit hour load for the two majors to a reasonable level that matches other majors, (2) developing a core curriculum that adds coherence to the program, and (3) developing or giving better practical guidance to the students for their “area of emphasis.” The external reviewers repeatedly stated that the burden of interdisciplinary integration must not fall on the students themselves, nor can it be obtained from a smorgasbord of courses in an attempt to cover every conceivable topic. In addition to streamlining and simplifying the program, academic advising must become the responsibility of the faculty.

The external reviewers agree with the self-study about the continued need to clarify expectations for joint appointment faculty. The external reviewers agree with the self-study about certain concerns, such as whether or not applied research (versus basic research) is fully valued, or whether there is sufficient recognition for outreach activities, supervision of internships, and a heavy service load. In considering the issues, they conclude that the procedures already in place or in the process of clarification at this time are satisfactory. The external reviewers do not support the CEP’s goal to become a tenuring unit. They note that this would be contrary to national trends in this field, and would work in contradiction to many of the goals of an interdisciplinary program. The external reviewers do believe, however, that research achievement should be an expectation for joint appointment faculty in both the CEP and the tenuring unit.

Finally, there are other minor comments and suggestions that were culled from the external report. These include the need to hire a faculty member in environmental policy, possible modifications in the structure of the advisory committee, addition of laboratory space, better utilization of staff resources, and efforts to increase external funding. These are discussed below.

**Summary of Recommendations of the External Team**

1. **Strategic plan.** The external reviewers recommend the development of a comprehensive strategic plan, beginning with a clarified mission statement, including specific goals for designated time periods, and with benchmark measures of success.

2. **Coherence of mission statement and centrality of research.** The external reviewers repeatedly stress the centrality of research to any interdisciplinary program. They stress the importance for the CEP of defining a coherent mission statement and goals that center on an articulated research agenda. They believe the current mission statement is too focused on the teaching mission of the CEP.

3. **Curriculum revision.** The external reviewers recommend a reduction in the number of courses and total credit hours for both majors, the development of a dedicated core sequence for each of the majors, and streamlined or simplified “areas of emphasis.”
4. **Academic advising.** The external reviewers recommend that academic advising and individual program design should be distributed among the faculty.

5. **Programmatic assessment.** The external reviewers recommend faculty conduct periodic programmatic assessment, possibly at a regularly-scheduled faculty/staff retreat, and that certain assessment tools be implemented including student portfolios, senior exit surveys, and alumni surveys.

6. **Faculty resources.** The external reviewers identify a new faculty hire in interdisciplinary environmental policy as a critical priority.

7. **Faculty retention and success.** The external reviewers concur with the self-study that clear and consistent communication is needed to ensure the success of probationary joint faculty; however the external reviewers do not concur with a proposal to develop tenure lines within the CEP.

8. **Advisory boards.** The external reviewers recommend replacing or supplementing the existing advisory committee (which consists primarily of university faculty) with an external advisory board. The external reviewers also recommend forming a student advisory board to provide input on student issues to the director.

9. **Utilization of staff resources.** The external reviewers pointed out, in several different places in their report, that the existing staff organization can be made more effective. At the present time the director is often engaged in activities that should be delegated to the staff, while the assistant director’s primary responsibilities are academic advising, editing, and grant writing. The external reviewers believe advising should be allocated to the faculty. They also recommend that efforts be made to find external funding sources (gifts or endowments), which are more typically the primary duties of a director.

10. **Facilities.** The external reviewers recommend a dedicated environmental science laboratory, and also a dedicated space for environmental policy students.

11. **Funding.** The external reviewers find operating budgets satisfactory, but recommend the development of endowment funding and/or gifts from external sources.

12. **Master of Teaching Degree.** The external reviewers respond cautiously, stating that “the proposed Master of Arts in Teaching program does seem appropriate given the current activities of the Center, its relationship to the College of Education [and Human Development] and the present faculty,” however “we would encourage this goal be incorporated in a broader framework of strategic planning. As such, it may emerge as a most important goal or not.” The issue is not discussed further, including in the summary of main points. It would be fair to say the external reviewers were neither encouraging nor discouraging of this proposal.
**Unit Response to External Reviewers’ Report**

The PRC liaison met separately with the director, most of the faculty, and most of the advisory committee. At each meeting, there was a general appreciation for the thorough review conducted by the external reviewers. In response to questions by the liaison, there was also recognition that changes were necessary and desirable. There were, however, differences of opinion about many specific issues.

*Director.* The director clarified that some of the concerns about the mission statement and strategic plan may have resulted from misunderstandings. The director clarified that the CEP does have a strategic plan (posted on the university website), however she agreed that such plan does not really fill the needs identified by the external reviewers (specific timetables with outcomes that can be benchmarked). The director also expressed some frustration that in her conversations with the dean and vice-provost prior to preparing the self-study, she believes she was told to de-emphasize the research component, and that in fact her faculty were disappointed that research was not emphasized more in the self-study.

The director expressed her concerns related to a greater emphasis of a research mission for the CEP. One problem is the small number of faculty in the CEP at this university as compared to other universities. She believes it is virtually impossible at the present time to define a unified theme for research for the CEP simply because of its small size and mix of faculty interests. The director also expressed a great deal of concern about promotion and tenure issues for joint-appointment faculty, particularly if a research mission will be emphasized. She does not believe that different kinds of scholarship, particularly those applied research projects that do not lead to more traditional refereed publications, are fully valued by the dean and provost. This puts joint appointment faculty in very difficult positions.

The director explained that the primary concern with merit has been that merit is distributed from the dean’s pool, and the CEP has relatively little input to these decisions. The director agreed there would be many potential problems with the CEP becoming a tenure-granting unit, particularly losing the interdisciplinary aspect of the Center. She noted that historically the advisory committee had faculty, outside advisors, and students. Now the advisory committee is mostly faculty, which has had both advantages and disadvantages. She explained that at the present time few students seem interested in involvement in governance issues.

Finally, the director supports the MAT proposal, explaining that the CEP interacts with many public school teachers and non-formal educators (such as employees at the Toledo Zoo, COSI, or the Toledo Metroparks) who would be interested in this degree program. However, she acknowledged the external reviewers, in her words “did not support the proposal.”
Faculty. The liaison met with four faculty members and one staff member. There was general agreement that the strategic plan and mission statement required revision. The question about a research focus elicited the interesting comment that in the past the internship experience was considered an alternative to the recent interest in Research Experience for Undergraduates (REUs) although they are really not comparable. There was the concern that the CEP faculty were still not a large enough group and “stable enough” (tenured) to support a major REU focus.

There appears to be widespread dissatisfaction about the large credit hour requirements for both majors, but the solution is not as clear. Several faculty expressed a desire to develop a curriculum that establishes student “cohorts” that would take the same sequence of classes simultaneously. Several comments were made about “moving the core curriculum in-house” but when questioned it was not at all clear how this would be accomplished with existing staff resources and without duplication of courses from other departments.

There was agreement that the “areas of emphasis” need to be streamlined. There also was agreement that academic advising should be a faculty responsibility, although concerns were raised about an additional service burden, and how to allocate advisees when the joint appointment faculty carry different loads. The liaison suggested a declared minor might be a vehicle to solving several problems, including (1) streamlining the area of emphasis, (2) simplifying academic advising, (3) facilitating better communication with the departments (by developing specialty minors), and (4) ensuring the course pool (the departments would have a greater stake in seeing that the necessary courses were offered). Several faculty strongly disagreed with this suggestion, although at least one indicated it was worth consideration.

Much time was spent on the merit and promotion-tenure proposals. The faculty expressed dissatisfaction that the merit component is awarded from the dean’s pool. There is a high level of dissatisfaction with the evaluation of joint-appointment faculty. The kinds of things demanded of CEP faculty are not sufficiently recognized and rewarded in the promotion and tenure process—for example, internships and the service-learning orientation of class projects are enormously time consuming, yet unlikely in most cases to lead to research publications in the peer-reviewed literature. Several asked what had happened to retention documents—was this an experiment that was ended without notice? However, there was general agreement with the external reviewers that the problem is implementation of policy, not the need for new policy.

Finally, the faculty support the proposal for an MAT degree. Several stated their belief that the external report endorsed their proposal, in contrast to the director’s view (see above).

Advisory Committee. The liaison met with nine members of the advisory committee (the assistant director, two external members, five university faculty, and one current graduate student). Two individuals were alumni of the CEP. As might be expected with a large group, there were some areas of agreement and other areas of different views.
There was some disagreement about the centrality of research to the current mission of the CEP. Some expressed the view that the CEP does have a primary undergraduate teaching mission at this time and for the near future, although there was recognition this would change if the CEP developed a graduate program or became a tenuring unit. The role of undergraduate research was discussed in great detail. The general view was that the presently mandated internships vary widely between one extreme of applied job training and another extreme of true research projects. There were suggestions about trying to add continuity to internships by including some form of an original research project to each internship. One member of the advisory committee spoke about how such research reports would give something tangible back to the sponsoring agency. The advisory committee members from external constituencies spoke favorably of internship experiences in support of job applicants. There was some sentiment about how both the numbers of students involved in internships, and the individual nature of each placement, are a major demand on the CEP.

The advisory committee appeared to be knowledgeable about the need for curriculum reform. One concern expressed was the need for any core course sequence to have sufficient flexibility to account for the numerous late transfers into the ENVS program. The discussion of “areas of emphasis” transitioned into a discussion of outreach to the departments, advising, and the course pool. There was not strong support for minors. One member of the advisory committee suggested there were two alternatives: a 30-35 credit major plus a minor, versus a 50 credit major without a minor. One ENVS alum noted that he describes his degree using the “area of emphasis” as a specialization. Someone else expressed concern about that, noting that there were no guidelines about what constitutes a name for an “area of emphasis,” versus the existing degree program specializations which have specific requirements. The two external members of the committee both agreed that a name of a minor or specialization is useful, in some cases critical, in hiring practices, but also noted that they always look at the background and skills of each job applicant. There was agreement about advising being the role of the faculty, but the assistant director expressed concern about who signs off for each student, and whether everyone involved would be fully trained as academic advisors. The group discussed some models for addressing these concerns.

The external reviewers suggested forming an external advisory committee. The present advisory committee had split opinions about this, noting the value of having a mix of views in the room at one time. Some advocated keeping a single committee but expanding it, however there were also concerns about the difficulty of such a large group meeting. One important comment that appeared to have widespread support was the need to formalize the advisory committee(s) with some statement of purpose and responsibilities. It is also preferable to have terms of office for the members of the advisory committee.

The problems with joint appointments for probationary faculty were discussed at length. There is a need to clarify the expectations for joint appointment faculty both in the CEP and the host department. There is a need for retention documents to be developed for each probationary faculty member during their first year. Several members of the advisory
committee stated that it is ultimately the dean’s responsibility to see that “the system works,” because of the different constituencies involved.

Finally, the members of the advisory committee clarified their belief that the external reviewers were saying that the MAT program is not a current priority, but should be considered after other steps were completed.

PROGRAM REVIEW COMMITTEE
FINDINGS AND RECOMMENDATIONS

The PRC congratulates the Center for Environmental Programs for its many accomplishments. The dedication of the CEP faculty, staff, students, alumni, and members of the advisory committee are particularly notable. The CEP has served a unique purpose in helping the university foster a sense of environmental awareness and environmental literacy among the university community. The CEP has achieved numerous successes that showcase the environmental leadership of the university, including the recycling program, habitat restoration projects, and internship programs with government agencies, businesses, and non-profit institutions throughout northwest Ohio. The CEP has graduated a large number of undergraduate students who have successfully found employment or continued their education at graduate schools in the areas of environmental science or environmental policy. All of these successes are more notable because they have been achieved by an interdisciplinary program that lacks both the resources and the continuity of faculty and staff that are the norm in established departments.

The PRC wishes to support and foster the continued success of the CEP, by identifying several key areas where the Center could become more efficient and effective in its mission. The PRC concurs with the external reviewers that recent positive developments in the CEP (hiring a new director, successful tenuring and promotion of faculty, hiring of new faculty, and an increase in full-time faculty versus part-time faculty) have ushered in a needed period of stability. The time is ripe to re-evaluate certain assumptions and make significant changes.

1. Strategic Plan

Findings. The PRC concurs with the external reviewers that the CEP should produce a strategic planning document, beginning with a clarified mission statement that has specific goals, projected dates of completion, and measurable benchmarks. Given the importance of the strategic plan for the unit’s continued success, this should be the highest priority. The mission statement and strategic plan should show linkage to the Academic Plan. A faculty and staff retreat dedicated to strategic planning might be valuable.

Recommendation. The CEP should review and revise its strategic plan with attention to specific actions to be completed, a timetable, and benchmarked outcomes. The plan should be presented to the Dean of Arts & Sciences for his review and approval by the end of fall semester 2004.
2. Mission Statement and Goals

Findings. The PRC concurs with the external reviewers that the mission statement and goals should be clarified, made more cohesive and self-consistent, and explicitly state the research mission of the CEP. The external reviewers state that the present mission statement is too focused on the teaching mission of the CEP, and that a research mission is central to an interdisciplinary environmental program. The PRC believes the CEP should evaluate this issue in detail, and determine the extent that the mission statement might reflect those views. Revision of the mission statement and goals should be concurrent with the strategic planning process. The goals should be assessable, and programmatic assessment tools should be implemented.

Recommendation. The CEP should incorporate a revision of its mission statement and goals into the strategic planning process discussed above.

3. Curriculum Revision

Findings. The PRC concurs with the external reviewers and the self-study that there should be a significant revision of curriculum (self-study goals 1 and 2). The purposes of this curriculum revision are (1) to reduce the number of credit hours required for the major, (2) to better identify and focus the goals of the interdisciplinary program by creating a core curriculum, and (3) to streamline and simplify the “area of emphasis.”

Although there are a number of ways to accomplish these goals, the PRC offers the following ideas. Building on both the self-study and external review, the PRC suggests that the CEP consider creating a core degree program of 30-35 credit hours (including ENVS courses and required supporting courses), and that the “areas of emphasis” be streamlined into a declared minor (15-20 credit hours). Related minors exist in disciplines (e.g., biology, history) and interdisciplinary programs (e.g., American Culture Studies, Canadian Studies, paleobiology); the University also offers a “planned program” minor. In addition, the possibility exists to create new specialty minors in cooperation with department(s) on topics relevant to environmental studies (e.g., conservation biology, hydrology, climatology, etc.).

Collectively, the changes suggested above would result in a significant reduction in required credit hours from the existing environmental studies majors. Neither of the majors currently require a minor. Nevertheless, a core major of 30-35 credit hours plus a declared minor of 15-20 credit hours would be a minimum of 34-35 credit hours less than the existing degree requirements.

In addition, a core major of 30-35 credit hours would bring the two majors into accord with the requirements of other majors at the University. A core sequence would add coherence to the program and would allow the CEP to institute the “cohort” approach (groups of students to be taking the same sequence of courses) which some of the CEP faculty are interested in implementing. The time freed by reducing credit hour requirements could be better utilized
by the students for internships or undergraduate research experiences. The reduction in required credit hours for the majors may improve student recruiting and retention. Finally, a declared minor offers the following advantages: (a) it would streamline and simplify the development of a student’s “area of emphasis,” (b) it would reduce the burden of academic advising by allowing the development of programmatic advising tools (see below), (c) it might help ensure the course pool, because the affiliated department(s) would have a stake in ensuring that certain courses would continue to be offered, (d) it might facilitate the recruitment of adjunct faculty, and (e) it may improve the student’s opportunity for career success (for example “an environmental science degree with a minor in biology” conveys a certain amount of information to potential employers).

Recommendation. The CEP should revise the curriculum for both majors in time for inclusion in the 2006 Undergraduate Catalog. This means that blue sheets should be submitted by early fall semester 2005.

4. Academic Advising

Findings. The PRC concurs with the external reviewers that academic advising should be the shared responsibility of the faculty. There are different models for advising, ranging from a single advisor for the entire academic unit, to dispersing the advisees to all faculty. The university is moving toward a model of centralized advising for the first two years and specialized advising (advisees dispersed among the faculty) for the final two years. The CEP needs to evaluate which model best works for it. Because it is typical to avoid unduly burdening probationary faculty with excessive advising responsibilities, it may be necessary to devise differential advising loads among the CEP faculty.

In addition to individual student advising, the PRC finds that programmatic advising protocols or tools could be valuable. As an interdisciplinary program, environmental studies draws upon a large number of traditional disciplines. The faculty in these disciplines are in a position to help determine what the needs are for students in their areas of emphasis (or, as suggested above, in their minors). For example, the faculty of the Department of Physics and Astronomy could be asked to clarify which physics courses it recommends for either an area of emphasis or a minor in environmental physics. The PRC agrees with the external reviewers that it should not fall to the students to construct their own areas of emphasis based on course availability, comments from fellow students, or advice coming from outside the expertise of the faculty who actually work in those specializations/areas of emphasis. This programmatic approach to academic advising would be greatly facilitated if the suggestion to require a declared minor (see above) is implemented. Certain career pathways (e.g., hydrology, conservation biology, environmental law) could be more coherently presented because they would be anchored in a declared minor.

Recommendation. The CEP should determine which model for academic advising would be best suited to its needs, while meeting the recommendations for increasing the involvement of the faculty in advising. The PRC also recommends that programmatic
advising tools be implemented as part of curriculum revision. These actions should be implemented during the 2004-05 academic year.

5. Faculty Resources

*Findings.* The self-study mentions needed faculty resources as part of Goal 2 (Improving the Environmental Policy and Analysis curriculum), specifically to “create a joint appointment with Political Science, [and] create a joint appointment with History.” Since writing the self-study, the situation may have already changed with the hiring of a new faculty member in the Department of Political Science. The external reviewers identify a faculty member with a specialty in interdisciplinary environmental policy as a critical resource need.

It is difficult for the PRC to evaluate this faculty resource issue, for the following reasons. First, the self-study did not make a sufficient case for needed faculty resources (in other words, how this new position would add to the research capabilities of the CEP and fulfill critical teaching needs). Second, it is not clear how the recent hire in Political Science may resolve some of these needs.

*Recommendation.* Requests for new faculty positions, with supporting data, should be addressed as part of the strategic planning process.

6. Merit Document

*Findings.* There are two separate issues here. The first issue is the possible need to revise the CEP’s internal merit document to better evaluate its faculty and staff. The proposed review and revision of the CEP’s merit document (self-study goal 4) is certainly a worthy endeavor.

The second issue, which may be more significant, is the dissatisfaction with how merit funds are allocated from the dean’s pool, rather than a designated CEP merit pool. Apparently merit for the faculty in CEP, Women’s Studies, and American Culture Studies come from the dean’s pool because of the small number of faculty involved. The CEP should consider the advantages and disadvantages of the present system, and discuss the issue with the dean.

*Recommendations.* Because changes in merit documents can not be retroactive and must be in place prior to January 1st of any given year, the CEP should strive to complete review and revisions of its merit document before the end of fall semester 2004. The PRC recommends the CEP director meet with the dean prior to the end of fall semester, 2004-2005 to address concerns about merit, promotion, and tenure (see below).

7. Faculty Retention and Success

*Findings.* Self-study goal 5 calls for the CEP to become a tenure-granting academic unit and/or to develop an additional tenure and promotion “policy” for probationary faculty
with joint appointments. Tenure and promotion present complex issues because the CEP is not a tenure-granting unit. Each of the tenure-track faculty affiliated with the CEP has a tenure-line that resides in their respective academic department. This can only change if and when CEP formally proposes to change from a program to a department. The faculty affiliated with the CEP may wish to consider the advantages and disadvantages of becoming a department, in terms of mission, personnel, and resources.

Within its current status as a non-tenuring, interdisciplinary program, the CEP has input to the tenure decisions of faculty holding joint appointments. This input includes CEP representation (and vote) at faculty meetings where the reappointment, tenure, and promotion decisions are made within the department holding the tenure-line, and also through an independent letter of evaluation from the CEP director which accompanies materials sent forward to the College. It is not clear from the self-study document if the CEP faculty believe that this existing policy structure is inadequate and requires change, or what alternatives CEP proposes.

The tenure and promotion of some joint-appointment faculty in the past has been problematic. The PRC concurs with the external reviewers that past problems appear to have been more due to inadequate policy implementation than to gaps or deficiencies in the policies themselves. Policy implementation, which calls for timely and substantive reviews and significant efforts to mentor probationary faculty, should be a high priority for the CEP, the department holding the tenure-line, and the College of Arts & Sciences.

The PRC has several concerns. First, the self-study includes a suggestion to develop a policy to help guide tenure and promotion decisions. The PRC sees a potential danger here in the proliferation of policies about promotion and tenure—multiple policies could confuse rather than clarify. Joint-appointment faculty should understand that the promotion and tenure policy of their respective department is what governs these decisions. Second, the status of “retention documents” should be clarified with the CEP probationary faculty as soon as possible. Apparently “retention documents” are in the process of being replaced by “statements of expectation.” The probationary faculty need to be informed about these changes as soon as possible. Third, there appear to be significant concerns among the joint-appointment faculty about competing expectations between the CEP and departments holding the tenure line. The CEP calls upon its faculty to support undergraduate research experiences, internships, and class projects with a service-learning component. In many cases these activities draw energy and focus away from the publication of peer-reviewed articles required for tenure and promotion. Finally, the PRC does not support the proposal for the CEP becoming a tenure-granting unit at this time, because it believes the issues needs greater discussion. The CEP should carefully consider the reasons the external reviewers oppose such a proposal; however, if it favors becoming a tenure-granting unit, the CEP should make that case to the dean.

Recommendations. There are four separate issues. First, the PRC concurs with the external reviewers that concerns about promotion-tenure for CEP joint-appointment faculty are more related to policy implementation than the need for additional policy—we do not
encourage the development of additional policies. Second, the CEP is encouraged to identify issues of concern with the promotion-tenure polices of tenure-holding departments for the joint-appointment faculty and work with those departments to find resolution. Third, the PRC calls to the dean’s attention that the CEP faculty have a high level of concern about the success of its probationary faculty on joint-appointments, and need clarification about the fate of “retention documents.” The PRC recommends the CEP director meet with the dean prior to the end of fall semester, 2004-2005 to address concerns about merit, promotion, and tenure (see above). Finally, the PRC concurs with the external reviewers that it is not in the best interests of the CEP to become a tenure-granting academic unit at the present time.

8. Utilization of Staff Resources

Findings. The PRC concurs with the external reviewers that staff assignments should be reconsidered. There appears to be widespread consensus among the external reviewers, director, CEP faculty, and the PRC that academic advising is a responsibility of the faculty. The external reviewers also criticized the fact the director is assuming responsibilities for routine staff assignments, while also suggesting that more efforts at external fund-raising were desirable. Most interdisciplinary centers adopt the model where the assistant director acts as a “chief of staff” to fulfill routine administration while the director’s primary responsibilities are to external constituencies, such as outreach, fund-raising, and publicity. The CEP needs to consider whether this model would work, given the realities of their situation.

Recommendation. The PRC recommends the responsibilities of the various CEP staff be reallocated to improve the effectiveness of the Center. Academic advising should be gradually shifted to faculty (see above). The more traditional role of a director involves external constituencies (fund-raising, outreach, and publicity) while the assistant director is more concerned with administration. The CEP should propose changes that best match the needs for change with present realities.

9. Facilities

Findings. Goal 3 in the self-study calls for support in constructing a temporary environmental science laboratory. The self-study notes that the physical space would be provided in Overman Hall by the Department of Physics and Astronomy, and at least some of the renovation costs or equipment costs have been funded by a donation or gift. In addition, the CEP plans to request laboratory space in the new science building. The external reviewers support the request for an environmental science laboratory, and also state that there should be research space made available for the environmental policy students.

Science laboratories and computer facilities are among the most expensive assets for a university. They are costly not only to build and stock, but also to staff and maintain. Typically every instrument has an annual maintenance or depreciation cost of 10-15% of its initial outlay. Expendable supplies necessary to maintain a laboratory can become a significant component of operating budgets. In addition to all this, physical space in science
buildings is a critical resource. On the other hand, CEP serves a large number of majors, and laboratory experiences are an appropriate part of the curriculum for which the CEP must provide.

Because the CEP is interdisciplinary in character, there is a good rationale to share laboratory space in collaboration with departments. The PRC supports the CEP’s long term approach to develop shared laboratory space. The CEP should pursue efforts to share new and/or existing facilities; it should make every effort to meet its curriculum needs without duplication of laboratory resources.

Recommendation. Requests for physical space, laboratory equipment, and/or field equipment should follow from the curriculum revision recommended above (recommendation 3). Duplication of science laboratory facilities should be avoided if at all possible. Prior to construction of new facilities, all avenues for the sharing of existing laboratory facilities should be pursued.

10. Fundraising

Findings. The PRC concurs with the external reviewers that seeking and obtaining external funding should be a priority activity of the CEP. Fundraising activities might include building endowed funds, securing gifts, and obtaining external equipment or instructional grants. Typically, these activities would be the primary responsibility of the director, and would not distract the other joint-appointment faculty from the need to pursue their own research agendas, including grants-in-support of research. The situation in this case is complicated by certain realities, but should be considered by the CEP.

Recommendation. Fundraising for endowment, scholarships, equipment, and center operations in general should be a priority to ensure the continued success of the CEP. The PRC recommends the director meet with the dean, Sponsored Programs and Research, and the Development Office before the end of fall semester, 2004-2005 to develop a strategy for these fundraising efforts.

11. Master of Arts in Teaching

Findings. The focus of the CEP has changed from research to undergraduate education, and now is possibly posed for a third recasting–with an emphasis on environmental education. Offering an MAT degree (Goal 6) might be one mechanism to facilitate the perceived change in direction. An MAT degree in environmental education could be a valuable bridge between the College of Arts and Sciences and the College of Education and Human Development. Such collaboration, and demonstrated efficiencies, would be in accord with the Academic Plan.

However, the PRC has significant reservations about this new direction, in large part because of the many implications of such a development. In order for such a proposal to be approved and accepted, a great deal of work remains to be done. This includes
demonstrating need and sustainability, and answering significant questions about reallocation of resources and staffing.

The PRC is concerned about several comments in the short section of the self-study document about this proposal. First, there may be some confusion of purpose about this proposal. In discussions with CEP faculty some describe potential clientele or needs that more closely resemble an MA or an MS degree, rather than an MAT degree. Second, because the CEP is a relatively small academic unit, the existence of a graduate program would have a strong influence on the focus and offerings of its undergraduate program. Third, most MAT programs involve both an academic year component (for traditional students) and a second component consisting of summer school offerings, special workshops, and/or distance learning for full-time teachers unable to be traditional students. This raises additional staffing and resource questions. Most significantly, if a graduate degree program is added, that may entail cutting other program offerings in order to free the resources necessary to develop the graduate program.

**Recommendation.** The PRC recommends that substantial further study is necessary before deciding to propose a new graduate degree program. Such study should be undertaken only after issues with the undergraduate programs have been resolved. At that time, if the CEP decides to pursue a graduate degree, they should develop a proposal, which addresses issues of demand, faculty resources, other resources, relationship to the undergraduate programs, relationship to research efforts of CEP faculty, and impacts on departments and programs with which the CEP currently collaborates.

**12. Assessment of Student Learning**

**Findings.** The CEP is an important contributor to the General Education curriculum. The General Education Committee recently reviewed ENVS 101 and ENVS 301, and commented very favorably on the assessment plan for ENVS 101, and required only minor modifications for ENVS 301. Both courses (as well as ENVS 201) require undergraduate research experience, have a writing component, and require an oral presentation of an individual or group project. The PRC commends the CEP for their leadership role in developing and implementing assessment and learning outcomes in the General Education curriculum.

Both majors have a capstone course (ENVS 402) involving a group undergraduate research experience that also typically involves outreach to local government or non-profit agencies. The capstone course involves a written paper and oral presentation. Both majors also require an internship experience. Both the capstone course and internship experience are highly commendable educational experiences, which represent significant outlays of time and energy by the CEP faculty and staff. It is no small task to find and organize meaningful and useful class projects and internships, particularly as outside-the-classroom experiences that are dependent on many factors beyond the control of the CEP faculty and staff. The CEP deserves a great deal of recognition and credit for their efforts along these lines.
After years of successful experience with supervising the capstone course and internships, the CEP should consider whether or not the nature of the student’s experiences are highly variable, year-to-year, because of differences implicit in each individual internship and because of the range of projects selected for the capstone course in any given year. The CEP has articulated the learning outcomes for both majors (p. 24-25 of the self-study). As the CEP itself recognizes, there is now a need to revisit its assessment strategies for the learning outcomes for both majors. There are particular concerns about the evaluation and archiving of electronic portfolios.

**Recommendation.** The PRC concurs with the self-study that a comprehensive assessment strategy is needed for its new learning outcomes. The self-study sets a goal of completion in 2003-2004. In light of the significant requirements for a revised strategic plan, mission statement and goals, and curriculum revision, discussed above, the PRC recommends this goal be reset as the end of spring semester, 2005-2006. Given the programmatic focus of the university’s assessment program, the CEP’s work on assessment should attend to student learning across the whole course of study. In addition, the PRC recommends that the CEP meet with representatives of the Center for Teaching, Learning, and Technology to discuss concerns about formatting, archiving, and evaluating electronic portfolios.

13. **Advisory Committee**

**Findings.** The PRC concurs with the external reviewers that the structure of the advisory committee should be evaluated with a goal of increasing external representation. The existing advisory committee also recommends having a statement of purpose and responsibilities, and specifying regular terms of office for the members. The existing advisory committee is split on the pros-and-cons of forming two separate committees (e.g., Faculty Advisory Committee and External Advisory Committee) or enlarging the existing committee with more external representatives.

**Recommendation.** The PRC recommends that the CEP solicit the advice of its current advisory committee, and formulate a proposal to address these issues, no later than the end of fall semester, 2004-2005.

*The Center for Environmental Programs should report annually to the Dean of the College of Arts & Sciences, with a copy to the Provost/VPAA, on the implementation of these recommendations.*