

PROGRAM REVIEW

February 7, 2011

UNIT Environmental Science DEPARTMENT Col Of Science & Math COLLEGE College of Science & Math

GRADUATE _____ UNDERGRADUATE X

UNIT CONTACT PERSON _____

CHAIRPERSON SIGNATURE _____

DEAN SIGNATURE _____

EXECUTIVE SUMMARY UNDERGRADUATE

Environmental Science is a unique academic unit. Environmental Science is not a department, but an interdisciplinary and interdepartmental program based in the College of Science and Mathematics (CoSM). There are no faculty FTEs for Environmental Science. All faculty participating in the Environmental Science Program have full-time appointments in home departments within CoSM or other colleges.

The Environmental Science Program is a model for interdisciplinary education and an innovative and cost-effective approach to expanding curricular offerings without increasing FTEs and other instructional expenses.

Southeast Missouri State University was the first publically funded institution in Missouri to offer the B.S. in Environmental Science degree.

The Environmental Science Program has been in existence for ten years. The number of Environmental Science majors has remained relatively small throughout this time. The Program attracts students to Southeast that would otherwise not attend the University. Student inputs into the Program are comparable in quality to other CoSM academic units. Environmental Science has produced a small, but steady, stream of graduates who have experienced a high degree of success in securing professional employment or in entering post-graduate educational degree programs.

The faculty and students of Environmental Science will play a central role in addressing the University's Strategic Plan priority to "promote safety and sustainability and lead the region's efforts to protect the environment and conserve natural resources".

Career opportunities for trained environmental professionals are excellent. The demand for graduates is expected to continue to grow. The new community college presents a potential opportunity for development of a two year program for environmental technicians.

The Board of Regents and the Missouri Coordinating Board for Higher Education have approved a graduate program in Environmental Science. The graduate program will begin in the Fall 2010 semester. Southeast Missouri State University will be the only institution in Missouri offering a M.S. in Environmental Science degree.

Program Review Final University Committee Chair Comments

I. SIZE, SCOPE, AND PRODUCTIVITY OF THE PROGRAM

Briefly describe the depth and breadth of your unit's offerings (Undergraduate).

The curriculum of the B.S. in Environmental Science reflects the broad, diverse, and highly interdisciplinary nature of the professional field. The core curriculum completed by all majors includes 60-64 credit hours in science and mathematics courses and experiential learning through internship and/or research participation. Courses required in the core curriculum are from biology, chemistry, environmental science, geosciences, physics, and mathematics. There are six option areas under the degree, each requiring 18-28 additional credit hours of coursework.

The Program offers two academic minors; Environmental Studies for students with academic majors in the sciences and Environmental Science for students with academic majors outside of the sciences.

The Environmental Science Program does not offer University Studies courses or service courses for other majors.

| SIZE and SCOPE DATA UNDERGRADUATE | | | | | | | |
|---|---------|---------------------|------|------|------|---|---|
| Measure | Minimum | Aspirational Target | Year | | | | |
| | | | AY07 | AY08 | AY09 | 4 | 5 |
| Majors UNIT Total | 24 | 40 | 36 | 29 | 33 | | |
| Environ Sci: Policy & Comm [BS/BS/EVPC] | | | 0 | 0 | 2 | | |
| Environ Sci:Geoproc & Soils [BS/BS/EVGS] | | | 4 | 4 | 5 | | |
| Environ Science:Environ Health [BS/BS/EVEH] | | | 5 | 4 | 8 | | |
| Environmental Science [BS/BS/ENVS] | | | 16 | 5 | 2 | | |
| Environmental Science: Biology [BS/BS/EVBI] | | | 9 | 11 | 11 | | |
| Environmental Science:Business [BS/BS/EVBU] | | | 2 | 4 | 3 | | |
| Environmental Science:Info Sys [BS/BS/EVIS] | | | 0 | 1 | 1 | | |
| EnvironmentalScience:Chemistry [BS/BS/EVCH] | | | 0 | 0 | 1 | | |
| Minors UNIT Total | | | 17 | 16 | 15 | | |
| Environmental Science Minor | | | 4 | 9 | 9 | | |
| Environmental Studies Minor | | | 13 | 7 | 6 | | |
| Completers UNIT Total | 2 | 4 | 3 | 4 | 6 | | |
| Environ Sci:Geoproc & Soils [BS/BS/EVGS] | | | 0 | 0 | 1 | | |
| Environmental Science [BS/BS/ENVS] | | | 3 | 1 | 1 | | |
| Environmental Science: Biology [BS/BS/EVBI] | | | 0 | 2 | 3 | | |
| Environmental Science:Business [BS/BS/EVBU] | | | 0 | 1 | 1 | | |
| % Completion Rate 6 YR | 36 | 48 | 0 | 40 | 0 | | |
| Unit - % Retention FS YR 1 -- F YR 2 | 50 | 50 | 29 | 29 | 100 | | |
| Unit - % Retention FS YR 3 -- F YR 4 | 56 | 74 | 67 | 100 | 80 | | |
| UNIV - % Retention FS YR 1 -- F YR 2 | | | 57 | 71 | 100 | | |
| UNIV - % Retention FS YR 3 -- F YR 4 | | | 83 | 100 | 80 | | |

| | | | | | | | |
|---|-----|-----|-----|-----|-----|--|--|
| SCH On Campus FS | | | 114 | 97 | 121 | | |
| SCH Off Campus FS | | | 9 | 0 | 0 | | |
| SCH Total FS | | | 123 | 97 | 121 | | |
| SCH Summer On and Off Campus | | | 21 | 6 | 30 | | |
| SCHR (SCH ratios) On Campus Fall/Spring | 199 | 265 | 140 | 102 | 113 | | |
| SCHR (SCH ratios) Off Campus Fall/Spring | 199 | 265 | 60 | 0 | 0 | | |
| SCHR (SCH ratios) Total | 199 | 265 | 128 | 102 | 113 | | |
| Delaware SCHR | | | 258 | 234 | | | |
| % of Sections with Enrollment < 10 (GR < 8) | 10 | 5 | 60 | 67 | 100 | | |

Area of Concern for Size and Scope Data (Undergraduate)

The area of greatest concern must be the continuing relatively small number of Environmental Science majors. This ongoing challenge seems most related to lack of clear understanding by students of what career paths stem from this major. The most common question from prospective students and parents is, “what can a graduate do with this degree?” There is a wide variety of career opportunities available to graduates, but few positions have the title “environmental scientist”. Science-oriented students willing to take organic chemistry, calculus, physics, and microbiology are more likely to opt for pre-professional programs that lead to readily recognizable career titles such as physician, pharmacist, or optometrist.

A related area of concern, which actually appears in the data set at the “aspiration” level, is the Unit-% Retention FS YR 1 – F YR 2. We lose too many of our incoming students early in the curriculum. The problem is that well-intentioned, but naive, students are attracted to the idea of “saving the environment” without sufficient appreciation of the academic challenges of the science-intensive curriculum. Despite efforts to work with these students, we too often lose them after they struggle with introductory science and mathematics courses.

An area identified in the data set at the “red flag” level seems to us to be an artifact or an error. This is the % Completion Rate 6 YR data. In AY 07 and AY 09 there were 3 and 6 Environmental Science graduates, respectively. However, the % Completion Rate 6 YR for these two years are both zero. The 6 YR Completion Rate is, and should be, of concern to us, but we are not as bad as the data suggest.

Concern for SCHR, identified in the data set at the “red flag” level will be discussed in the followin

| TEACHING PERSONNEL DATA UNDERGRADUATE | | | | | | | |
|---|---------|---------------------|------|------|------|--------|--------|
| | Minimum | Aspirational Target | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| Unit Full Time Faculty Number | | | 0.00 | 0.00 | 0.00 | | |
| Unit Full Time Faculty Adjusted for Release | | | 0.00 | 0.00 | 0.00 | | |
| Unit Full Time Faculty UG FTE | | | 0.96 | 0.95 | 1.07 | | |
| Unit Regional Campus Faculty Number | | | | | | | |
| Other Teaching Personnel UG Number | | | 0.00 | 0.00 | 0.00 | | |
| Other Teaching Personnel UG PTFTE | | | 0.00 | 0.00 | 0.00 | | |

Area of Concern for Teaching Personnel Data (Undergraduate)

Although the SCHR data appear in the Size and Scope section above, consideration of the concern is also appropriate in this section on Teaching Personnel.

The Unit Full Time Faculty Number for Environmental Science is zero, because the FTEs for all faculty are based in home departments, not Environmental Science.

SCHR values in the data set are identified at the “red flag” level. This looks worse than it actually is.

$$\text{SCHR} = \text{SCH}/\text{FTE}$$

However, FTE for Environmental Science is zero and division by zero is not defined mathematically.

Most Environmental Science (EV) courses are dual listed as EV/BI, EV/CH, EV/GO or EV/EC courses. For a dual listed course, such as EV/BI 4xx or EV/CH 3xx, the FTE for that course is divided equally in half between Environmental Science and the cross-listed department. However, the number of SCH is based upon the prefix which students sign up for. Since the numbers of EV students are outnumbered by the BI or CH students in a class, the calculated SCHR will always be low for Environmental Science.

In other words, Environmental Science is charged for one-half of the FTE for a dual listed course, but will almost always be credited with less than half of the SCH generated by a dual listed course.

The EV prefix on a dual listed course is actually value-added to the course in terms of SCH generation. The course would be offered with or without the EV prefix, but addition of the EV prefix adds students to the course that would otherwise not be enrolled in the class.

This issue with the mathematics of calculation of SCHR values for Environmental Science described above also impacts the calculations of Program costs, revenues, and revenue/cost ratios (see Sections II and III on Revenue and Costs).

| COMPARISONS UNDERGRADUATE | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|------|--------|------|
| | AY07 | | AY08 | | AY09 | | Year 4 | | Year 5 | |
| | COLL | UNIV | COLL | UNIV | COLL | UNIV | COLL | UNIV | COLL | UNIV |
| % Completion Rate 6 YR | 50.94 | 50.77 | 49.74 | 50.82 | 43.70 | 47.04 | | | | |
| Unit - % Retention FS YR 1 -- F YR 2 | 46.37 | 62.68 | 45.72 | 63.69 | 57.56 | 66.03 | | | | |
| Unit - % Retention FS YR 3 -- F YR 4 | 74.73 | 82.78 | 76.79 | 83.34 | 70.52 | 82.34 | | | | |
| UNIV - % Retention FS YR 1 -- F YR 2 | 64.73 | 62.81 | 64.95 | 63.69 | 73.06 | 66.13 | | | | |
| UNIV - % Retention FS YR 3 -- F YR 4 | 83.33 | 83.02 | 85.63 | 83.73 | 82.08 | 82.40 | | | | |
| SCHR (SCH ratios) On Campus Fall/Spring | 269.00 | 262.00 | 275.00 | 261.00 | 273.00 | 248.00 | | | | |
| SCHR (SCH ratios) Off Campus Fall/Spring | 215.00 | 227.00 | 183.00 | 290.00 | 203.00 | 213.00 | | | | |
| SCHR (SCH ratios) Total | 258.00 | 242.00 | 279.00 | 265.00 | 253.00 | 242.00 | | | | |
| % of Sections with Enrollment < 10 (GR < 8) | 19.22 | 17.54 | 18.56 | 17.42 | 16.85 | 22.70 | | | | |

| SIZE and SCOPE DATA SUMMARY UNDERGRADUATE | | | | |
|---|------|-------------------|------------------------|-----------|
| Measure | Mean | 5 year Outcome | % of Aspiration Target | Trend |
| Majors UNIT Total | 32.7 | Needs Improvement | 81.65 | Irregular |

| | | | | |
|---|-------|------------|--------|-----------|
| Environ Sci: Policy & Comm [BS/BS/EVPC] | 0.7 | | | Improving |
| Environ Sci:Geoproc & Soils [BS/BS/EVGS] | 4.3 | | | Improving |
| Environ Science:Environ Health [BS/BS/EVEH] | 5.7 | | | Irregular |
| Environmental Science [BS/BS/ENVS] | 7.7 | | | Declining |
| Environmental Science: Biology [BS/BS/EVBI] | 10.3 | | | Irregular |
| Environmental Science:Business [BS/BS/EVBU] | 3.0 | | | Irregular |
| Environmental Science:Info Sys [BS/BS/EVIS] | 0.7 | | | Irregular |
| EnvironmentalScience:Chemistry [BS/BS/EVCH] | 0.3 | | | Improving |
| Minors UNIT Total | 16.0 | | | Declining |
| Environmental Science Minor | 7.3 | | | Irregular |
| Environmental Studies Minor | 8.7 | | | Declining |
| Completers UNIT Total | 4.3 | Aspiration | 108.25 | Improving |
| Environ Sci:Geoproc & Soils [BS/BS/EVGS] | 0.3 | | | Improving |
| Environmental Science [BS/BS/ENVS] | 1.7 | | | Irregular |
| Environmental Science: Biology [BS/BS/EVBI] | 1.7 | | | Improving |
| Environmental Science:Business [BS/BS/EVBU] | 0.7 | | | Irregular |
| % Completion Rate 6 YR | 13.3 | Red Flag | 27.77 | Irregular |
| Unit - % Retention FS YR 1 -- F YR 2 | 52.7 | Aspiration | 105.32 | Improving |
| Unit - % Retention FS YR 3 -- F YR 4 | 82.3 | Aspiration | 111.25 | Irregular |
| UNIV - % Retention FS YR 1 -- F YR 2 | 76.0 | | | Improving |
| UNIV - % Retention FS YR 3 -- F YR 4 | 87.7 | | | Irregular |
| SCH On Campus FS | 110.7 | | | Irregular |
| SCH Off Campus FS | 3.0 | | | Irregular |
| SCH Total FS | 113.7 | | | Irregular |
| SCH Summer On and Off Campus | 19.0 | | | Irregular |
| SCHR (SCH ratios) On Campus Fall/Spring | 118.3 | Red Flag | 44.65 | Irregular |
| SCHR (SCH ratios) Off Campus Fall/Spring | 20.0 | Red Flag | 7.54 | Irregular |
| SCHR (SCH ratios) Total | 114.3 | Red Flag | 43.14 | Irregular |
| % of Sections with Enrollment < 10 (GR < 8) | 75.7 | Aspiration | 1513.2 | Improving |

UNDERGRADUATE

Brief Conclusion from Data

Environmental Science has been successful as an innovative interdisciplinary and interdepartmental program in expanding the curricular offerings of the university without additional faculty or resources. An integrated curriculum that cuts across disciplinary boundaries leads to a B.S. in Environmental Science. Environmental Science has maintained a small body of student majors and graduated a steady, though small, number of graduates. Program graduates have been highly successful in securing professional employment in the environmental field and in gaining admission to graduate programs in the sciences, law school, and M.B.A. programs.

The number of majors in the Program should be increased. There are more professional opportunities in the environmental field than we have graduates. The

excellent career opportunities and diverse career options available to Environmental Science graduates need to be more clearly communicated to prospective students interested in majoring in the sciences.

Retention rates of students declaring an Environmental Science major should be increased, particularly early in the curriculum. Entering students with weak backgrounds in science and mathematics should be considered “at risk” and greater efforts should be made to better assist these individuals through the initial round of required science and mathematics courses.

The current method for calculating SCHR in dual listed courses does not adequately recognize that dual listing of courses actually boosts class enrollments and SCH generation.

Additional Data or Comments

None.

Plan to Address

Environmental Science needs to better recruit students. The Program should develop more effective means to communicate career opportunities and career options in the environmental field to prospective students and parents. The two methods of choice are an enhanced Program website to reach distant audiences and an environmental careers brochure for use in personal contacts, Show Me days, and outreach mailings.

Environmental Science needs to enhance retention of students early in the curriculum. We will try to establish a peer support group for “at risk” incoming freshmen. We have always tried to foster relations between upper class students and lower class students. For example, our sophomore seminar (EV 201) meets concurrently with our senior seminar (EV 401). The upper class students in Environmental Science have been successful in the introductory science and mathematics classes. These students are in a position to serve as tutors for incoming students experiencing academic difficulties in these classes. It should be possible to develop a small corps of upper class tutors available to our freshman majors. While this idea is not a panacea, it is worth trying to see if it enhances retention of students early in the curriculum.

Brief Follow Up on Outcomes of Plans to Address from Last Review

None.

Program Review Final University Committee Chair Comments

II. REVENUE AND OTHER RESOURCES GENERATED BY THE PROGRAM

| REVENUE DATA UNDERGRADUATE | | | | | |
|-----------------------------------|-----------|-----------|-----------|--------|--------|
| Measure | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| All Courses - SCH Revenue | | | | | |
| On Campus FS | 24,788.29 | 21,883.55 | 29,925.52 | | |
| Off Campus FS | 2,226.06 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 4,152.33 | 1,295.52 | 9,035.52 | | |
| Subtotal Revenue SCH | 31,166.68 | 23,179.07 | 38,961.04 | | |
| All Courses - Fees Revenue | | | | | |
| On Campus FS | 0.00 | 0.00 | 0.00 | | |
| Off Campus FS | 0.00 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 600.00 | 0.00 | 1,800.00 | | |
| Subtotal Revenue FeeS | 600.00 | 0.00 | 1,800.00 | | |
| All Courses - Total SCH and Fees | 31,766.68 | 23,179.07 | 40,761.04 | | |
| Univ Studies Crses - SCH Revenue | | | | | |
| On Campus FS | 0.00 | 0.00 | 0.00 | | |
| Off Campus FS | 0.00 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 0.00 | 0.00 | 0.00 | | |
| Subtotal Revenue SCH | 0.00 | 0.00 | 0.00 | | |
| Univ Studies Crses - Fees Revenue | | | | | |
| On Campus FS | 0.00 | 0.00 | 0.00 | | |
| Off Campus FS | 0.00 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 0.00 | 0.00 | 0.00 | | |
| Subtotal Revenue FeeS | 0.00 | 0.00 | 0.00 | | |
| Univ Studies - Total SCH and Fees | 0.00 | 0.00 | 0.00 | | |
| SER/BC/ROM Crses - SCH Revenue | | | | | |
| On Campus FS | 0.00 | 0.00 | 0.00 | | |
| Off Campus FS | 0.00 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 0.00 | 0.00 | 0.00 | | |
| Subtotal Revenue SCH | 0.00 | 0.00 | 0.00 | | |
| SER/BC/ROM Crses - Fees Revenue | | | | | |
| On Campus FS | 0.00 | 0.00 | 0.00 | | |
| Off Campus FS | 0.00 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 0.00 | 0.00 | 0.00 | | |
| Subtotal Revenue Fees | 0.00 | 0.00 | 0.00 | | |
| SER/BC/ROM - Total SCH and Fees | 0.00 | 0.00 | 0.00 | | |
| Major Courses - SCH Revenue | | | | | |

| | | | | | |
|------------------------------------|-----------|-----------|-----------|--|--|
| On Campus FS | 24,788.29 | 21,883.55 | 29,925.52 | | |
| Off Campus FS | 2,226.06 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 4,152.33 | 1,295.52 | 9,035.52 | | |
| Subtotal Revenue SCH | 31,166.68 | 23,179.07 | 38,961.04 | | |
| Major Courses - Fees Revenue | | | | | |
| On Campus FS | 0.00 | 0.00 | 0.00 | | |
| Off Campus FS | 0.00 | 0.00 | 0.00 | | |
| Summer On and Off Campus | 600.00 | 0.00 | 1,800.00 | | |
| Subtotal Revenue FeeS | 600.00 | 0.00 | 1,800.00 | | |
| Major Courses - Total SCH and Fees | 31,766.68 | 23,179.07 | 40,761.04 | | |
| Unit Revenue External Grants | 0.00 | 0.00 | 0.00 | | |

SUMMARY UNDERGRADUATE

| Measure | Mean | Trend |
|-----------------------------------|-----------|-----------|
| All Courses - SCH Revenue | | |
| On Campus FS | 25,532.45 | Irregular |
| Off Campus FS | 742.02 | Irregular |
| Summer On and Off Campus | 4,827.79 | Irregular |
| Subtotal Revenue SCH | 31,102.26 | Irregular |
| All Courses - Fees Revenue | | |
| On Campus FS | 0.00 | Static |
| Off Campus FS | 0.00 | Static |
| Summer On and Off Campus | 800.00 | Irregular |
| Subtotal Revenue FeeS | 800.00 | Irregular |
| All Courses - Total SCH and Fees | 31,902.26 | Irregular |
| Univ Studies Crses - SCH Revenue | | |
| On Campus FS | 0.00 | Static |
| Off Campus FS | 0.00 | Static |
| Summer On and Off Campus | 0.00 | Static |
| Subtotal Revenue SCH | 0.00 | Static |
| Univ Studies Crses - Fees Revenue | | |
| On Campus FS | 0.00 | Static |
| Off Campus FS | 0.00 | Static |
| Summer On and Off Campus | 0.00 | Static |
| Subtotal Revenue FeeS | 0.00 | Static |
| Univ Studies - Total SCH and Fees | 0.00 | Static |
| SER/BC/ROM Crses - SCH Revenue | | |
| On Campus FS | 0.00 | Static |

| | | |
|------------------------------------|-----------|-----------|
| Off Campus FS | 0.00 | Static |
| Summer On and Off Campus | 0.00 | Static |
| Subtotal Revenue SCH | 0.00 | Static |
| SER/BC/ROM Crses - Fees Revenue | | |
| On Campus FS | 0.00 | Static |
| Off Campus FS | 0.00 | Static |
| Summer On and Off Campus | 0.00 | Static |
| Subtotal Revenue Fees | 0.00 | Static |
| SER/BC/ROM - Total SCH and Fees | 0.00 | Static |
| Major Courses - SCH Revenue | | |
| On Campus FS | 25,532.45 | Irregular |
| Off Campus FS | 742.02 | Irregular |
| Summer On and Off Campus | 4,827.79 | Irregular |
| Subtotal Revenue SCH | 31,102.26 | Irregular |
| Major Courses - Fees Revenue | | |
| On Campus FS | 0.00 | Static |
| Off Campus FS | 0.00 | Static |
| Summer On and Off Campus | 800.00 | Irregular |
| Subtotal Revenue FeeS | 800.00 | Irregular |
| Major Courses - Total SCH and Fees | 31,902.26 | Irregular |
| Unit Revenue External Grants | 0.00 | Static |

UNDERGRADUATE

Brief Conclusion from Data

The revenue stream for Environmental Science is limited to EV courses taught for majors and a small amount generated by special fees in one course.

For dual listed courses (EV/BI, EV/CH, EV/GO, and EV/EC) revenue is credited toward Environmental Science only for those students enrolled in the EV offering. This is typically the minority of students enrolled in any particular dual listed course.

However, the faculty salary costs of the dual listed courses are split evenly between Environmental Science and the cross-listed department (see also Section III on Costs).

There is no trend across the years in revenue generation by Environmental Science.

There are zero dollars of revenue generated by Environmental Science in the categories of University Studies, Service (SER), Business Core (BC), or Required on Other Majors (ROM). There are no EV courses that fall under these categories.

Environmental Science faculty do instruct University Studies, SER, and ROM courses, but these revenues are credited to the home department of the faculty member.

Additional Data or Comments

None.

Plan to Address

The obvious way to increase revenue for the Program is to increase the number of Environmental Science majors taking EV courses. Efforts to be made to recruit additional students to the major were described in Section I.

Student Credit Hour generation and revenue have been under counted due to Environmental Science students enrolling in the BI, CH, GO, or EC prefix course of dual-listed courses. There must be greater effort to assure that Environmental Science students enroll in the EV prefix course for dual-listed courses.

It is conceivable that a University Studies offering could be developed under the EV prefix. For example, a course on sustainability would be an excellent University Studies topic and an appropriate offering for Environmental Science. In order to retain the EV prefix (rather than UI or IU prefix) the course would have to be a lower division University Studies offering. However, there is currently a moratorium on development of lower division University Studies courses.

Brief Follow Up on Outcomes of Plans to Address from Last Review

None.

Program Review Final University Committee Chair Comments

III. COSTS AND OTHER EXPENSES ASSOCIATED WITH THE PROGRAM

| COSTS DATA UNDERGRADUATE | | | | | |
|---|-----------|-----------|-----------|--------|--------|
| | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| Cost Per Major | 1,185.00 | 1,573.00 | 2,001.00 | | |
| Unit Costs per Major SCH - On campus FS | 307.00 | 496.00 | 489.00 | | |
| Unit Costs per Major SCH - Off campus FS | 626.00 | 0.00 | 0.00 | | |
| Unit Costs per Major SCH - Summer | 281.00 | 0.00 | 229.00 | | |
| Unit Costs per Major SCH - Overall | 326.00 | 496.00 | 437.00 | | |
| Unit Costs for Major Crses - On campus FS | 31,953.00 | 45,605.00 | 59,184.00 | | |
| Unit Costs for Major Crses - Off campus FS | 5,636.00 | 0.00 | 0.00 | | |
| Unit Costs for Major Crses - Summer | 5,053.00 | 0.00 | 6,864.00 | | |
| Unit Costs for Major Crses - Overall | 42,642.00 | 45,605.00 | 66,048.00 | | |
| Unit Costs per Univ Studies SCH - On campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per Univ Studies SCH - Off campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per Univ Studies SCH - Summer | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per Univ Studies SCH - Overall | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for Univ Studies Crses - On campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for Univ Studies Crses - Off campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for Univ Studies Crses - Summer | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for Univ Studies Crses - Overall | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per SER/BC/ROM SCH - On campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per SER/BC/ROM SCH - Off campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per SER/BC/ROM SCH - Summer | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per SER/BC/ROM SCH - Overall | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for SER/BC/ROM Crses - On campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for SER/BC/ROM Crses - Off campus FS | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for SER/BC/ROM Crses - Summer | 0.00 | 0.00 | 0.00 | | |
| Unit Costs for SER/BC/ROM Crses - Overall | 0.00 | 0.00 | 0.00 | | |
| Unit Costs per All SCH - On campus FS | 307.00 | 496.00 | 489.00 | | |
| Unit Costs per All SCH - Off campus FS | 626.00 | 0.00 | 0.00 | | |
| Unit Costs per All SCH - Summer | 281.00 | 0.00 | 229.00 | | |
| Unit Costs per All SCH - Overall | 326.00 | 496.00 | 437.00 | | |
| Unit Costs for All Crses - On campus FS | 31,953.00 | 45,605.00 | 59,184.00 | | |
| Unit Costs for All Crses - Off campus FS | 5,636.00 | 0.00 | 0.00 | | |
| Unit Costs for All Crses - Summer | 5,053.00 | 0.00 | 6,864.00 | | |
| Unit Costs for All Crses - Overall | 42,642.00 | 45,605.00 | 66,048.00 | | |

| COSTS COMPARISONS UNDERGRADUATE | | | | | |
|---------------------------------------|----------|----------|----------|--------|--------|
| | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| College Cost per Major | 4,816.00 | 5,019.00 | 1,911.00 | | |
| University Cost per Major | 3,297.00 | 3,345.00 | 2,083.00 | | |
| Delaware Study Cost/SCH Unit | 183.00 | 195.00 | 0.00 | | |
| College Cost per Major SCHR | 282.00 | 322.00 | 325.00 | | |
| University Cost per Major SCHR | 204.00 | 214.00 | 231.00 | | |
| College Cost per Univ Studies SCHR | 142.00 | 116.00 | 107.00 | | |
| University Cost per Univ Studies SCHR | 153.00 | 108.00 | 106.00 | | |
| College Cost per SER/BC/ROM SCHR | 103.00 | 106.00 | 109.00 | | |
| University Cost per SER/BC/ROM SCHR | 121.00 | 130.00 | 117.00 | | |
| College Cost per all SCHR | 142.00 | 147.00 | 143.00 | | |
| University Cost per all SCHR | 153.00 | 155.00 | 161.00 | | |

| SUMMARY UNDERGRADUATE | | |
|---|-----------|-----------|
| | Mean | Trend |
| Cost Per Major | 1,586.33 | Improving |
| Unit Costs per Major SCH - On campus FS | 430.66 | Irregular |
| Unit Costs per Major SCH - Off campus FS | 208.66 | Irregular |
| Unit Costs per Major SCH - Summer | 170.00 | Irregular |
| Unit Costs per Major SCH - Overall | 419.66 | Irregular |
| Unit Costs for Major Crses - On campus FS | 45,580.66 | Improving |
| Unit Costs for Major Crses - Off campus FS | 1,878.66 | Irregular |
| Unit Costs for Major Crses - Summer | 3,972.33 | Irregular |
| Unit Costs for Major Crses - Overall | 51,431.66 | Improving |
| Unit Costs per Univ Studies SCH - On campus FS | 0.00 | Static |
| Unit Costs per Univ Studies SCH - Off campus FS | 0.00 | Static |
| Unit Costs per Univ Studies SCH - Summer | 0.00 | Static |
| Unit Costs per Univ Studies SCH - Overall | 0.00 | Static |
| Unit Costs for Univ Studies Crses - On campus FS | 0.00 | Static |
| Unit Costs for Univ Studies Crses - Off campus FS | 0.00 | Static |
| Unit Costs for Univ Studies Crses - Summer | 0.00 | Static |
| Unit Costs for Univ Studies Crses - Overall | 0.00 | Static |
| Unit Costs per SER/BC/ROM SCH - On campus FS | 0.00 | Static |
| Unit Costs per SER/BC/ROM SCH - Off campus FS | 0.00 | Static |
| Unit Costs per SER/BC/ROM SCH - Summer | 0.00 | Static |
| Unit Costs per SER/BC/ROM SCH - Overall | 0.00 | Static |
| Unit Costs for SER/BC/ROM Crses - On campus FS | 0.00 | Static |

| | | |
|---|-----------|-----------|
| Unit Costs for SER/BC/ROM Crses - Off campus FS | 0.00 | Static |
| Unit Costs for SER/BC/ROM Crses - Summer | 0.00 | Static |
| Unit Costs for SER/BC/ROM Crses - Overall | 0.00 | Static |
| Unit Costs per All SCH - On campus FS | 430.66 | Irregular |
| Unit Costs per All SCH - Off campus FS | 208.66 | Irregular |
| Unit Costs per All SCH - Summer | 170.00 | Irregular |
| Unit Costs per All SCH - Overall | 419.66 | Irregular |
| Unit Costs for All Crses - On campus FS | 45,580.66 | Improving |
| Unit Costs for All Crses - Off campus FS | 1,878.66 | Irregular |
| Unit Costs for All Crses - Summer | 3,972.33 | Irregular |
| Unit Costs for All Crses - Overall | 51,431.66 | Improving |

UNDERGRADUATE

Brief Conclusion from Data

The overall costs for the Environmental Science Program are small, particularly compared to large, traditional departments. There are no FTEs or faculty salaries for Environmental Science.

Most of the costs charged to Environmental Science stem from faculty instruction in dual listed courses. The faculty costs for dual listed courses are equally split between Environmental Science and the cross-listed department. However, the revenue generated by the dual listed course is split according to the number of students enrolled under the two prefixes.

Another way to say this is that Environmental Science is always charged with half the costs of a dual listed course, but almost always is credited with less than half of the revenue from the course. This method of calculation inflates our Unit Cost per Major SCH. In effect, this method of calculation reduces the apparent cost per SCH for the cross listed department and increases the apparent cost per SCH for Environmental Science.

The ratio of Revenue/Cost for Environmental Science is less than 1.0. Two departments in CoSM, Computer Science and Physics and Engineering Physics also have Revenue/Cost ratios less than 1.0. Three departments in CoSM with large University Studies and SER/BC/ROM components, Biology, Mathematics, and Chemistry, have Revenue/Cost ratios greater than 1.0.

Because Environmental Science does not contribute to University Studies and SER/BC/ROM courses, the entire costs for Environmental Science are associated with instructions of majors. Because EV courses are not included in University Studies and SER/BC/ROM courses, the Unit Cost per Major SCH is the same value as the Unit Cost per all SCH.

The Cost Per Major for Environmental Science is the second lowest in CoSM, exceeded only by the lower Cost Per Major for the Biology Department. The Cost Per Major for Environmental Science is lower than the University average Cost Per Major.

The only personnel cost associated with the Environmental Science program has been a one-quarter time administrative assistant position (50% of a half-time administrative assistant shared with the Biology Department)..

Additional Data or Comments

None.

Plan to Address

The part-time administrative assistant position shared by Environmental Science and Biology has been eliminated in the most recent budget and personnel reductions.

There is not an effective means to further reduce costs of Environmental Science.

There are only three in-load undergraduate courses that have the EV prefix, but are not dual listed. These are EV 201 (Environmental Science Seminar, 1 credit hour), EV 401, (Environmental Science Seminar, 1 credit hour), and EV 551 (Hazardous Materials Assessment, 3 credit hours). The remainder of the in-load courses with the EV prefix are dual listed in other departments. The off-load EV courses (internship, research, and readings) are not included in the cost calculations, but do generate revenue.

Elimination of the EV prefix would cancel only three in-load courses and the off-load courses. The remainder of the courses, which are dual listed, would continue to be taught by the cross-listed departments. Elimination of the EV prefix would result in lower enrollments in the dual listed courses.

Elimination of the entire Environmental Science Program would not cut faculty costs since there are no faculty FTEs assigned to the Program.

Adjustments to the mathematical methods of calculating costs for dual listed courses could reduce the apparent costs of Environmental Science, but this would simply be changes in book keeping and not a real savings to the University.

Brief Follow Up on Outcomes of Plans to Address from Last Review

None.

Program Review Final University Committee Chair Comments

IV. CONTRIBUTION TO UNIVERSITY STUDIES AND COURSES SERVING OTHER PROGRAMS

| UNIT SCH FROM UNIVERSITY STUDIES AND COURSES SERVING OTHER PROGRAMS | | | | | |
|---|------|------|------|--------|--------|
| | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| University Studies: On Campus FS | 0 | 0 | 0 | | |
| University Studies: Off Campus FS | 0 | 0 | 0 | | |
| University Studies: Summer | 0 | 0 | 0 | | |
| University Studies: Total | 0 | 0 | 0 | | |
| Services: On Campus FS | 0 | 0 | 0 | | |
| Services: Off Campus FS | 0 | 0 | 0 | | |
| Services: Summer | 0 | 0 | 0 | | |
| Services: Total | 0 | 0 | 0 | | |
| ROM: On Campus FS | 0 | 0 | 0 | | |
| ROM: Off Campus FS | 0 | 0 | 0 | | |
| ROM: Summer | 0 | 0 | 0 | | |
| ROM: Total | 0 | 0 | 0 | | |
| Business Core: On Campus FS | 0 | 0 | 0 | | |
| Business Core: Off Campus FS | 0 | 0 | 0 | | |
| Business Core: Summer | 0 | 0 | 0 | | |
| Business Core: Total | 0 | 0 | 0 | | |

| UNIT SCH SUMMARY | | |
|-----------------------------------|------|--------|
| Measure | Mean | Trend |
| University Studies: On Campus FS | 0.0 | Static |
| University Studies: Off Campus FS | 0.0 | Static |
| University Studies: Summer | 0.0 | Static |
| University Studies: Total | 0.0 | Static |
| Services: On Campus FS | 0.0 | Static |
| Services: Off Campus FS | 0.0 | Static |
| Services: Summer | 0.0 | Static |
| Services: Total | 0.0 | Static |
| ROM: On Campus FS | 0.0 | Static |
| ROM: Off Campus FS | 0.0 | Static |
| ROM: Summer | 0.0 | Static |
| ROM: Total | 0.0 | Static |
| Business Core: On Campus FS | 0.0 | Static |
| Business Core: Off Campus FS | 0.0 | Static |

| | | |
|-----------------------|-----|--------|
| Business Core: Summer | 0.0 | Static |
| Business Core: Total | 0.0 | Static |

UNDERGRADUATE

Brief Conclusion from Data

At present, Environmental Science does not contribute to University Studies and SER/BC/ROM courses.

The Environmental Science Program was developed to provide a cost-effective means to offer an interdisciplinary, interdepartmental B.S. degree in Environmental Science. Consideration was not given to Program involvement in the areas of University Studies and SER/BC/ROM courses.

Additional Data or Comments

None.

Plan to Address

Environmental Science is not currently participating in University Studies and SER/BC/ROM courses. However, it is reasonable to consider and explore future involvement of Environmental Science in these areas (see Sections IX and X below).

Brief Follow Up on Outcomes of Plans to Address from Last Review

None.

Program Review Final University Committee Chair Comments

V. EXTERNAL DEMAND

| EXTERNAL DEMAND DATA UNDERGRADUATE | | | | | | | | | | |
|------------------------------------|------|-----|------|-------|------|-----|--------|-----|--------|-----|
| | AY07 | | AY08 | | AY09 | | Year 4 | | Year 5 | |
| ACT DATA | | | | | | | | | | |
| | N | ACT | N | ACT | N | ACT | N | ACT | N | ACT |
| No. Identifying Planned Major | | | | | | | | | | |
| UNIT Totals | | | 35 | 25.20 | | | | | | |
| ECOLOGY/ENVSTUDIES [838] | | | 30 | 25.30 | | | | | | |
| ENVIRONMENTALCONTRLTECH [672] | | | 3 | 20.70 | | | | | | |
| ENVIRONMENTALHEALTHENG [634] | | | 2 | 30.50 | | | | | | |
| No. of ACT Scores to Southeast | | | | | | | | | | |
| UNIT Totals | | | 3 | 25.30 | | | | | | |
| ECOLOGY/ENVSTUDIES [838] | | | 3 | 25.30 | | | | | | |
| ENVIRONMENTALCONTRLTECH [672] | | | 0 | 0.00 | | | | | | |
| ENVIRONMENTALHEALTHENG [634] | | | 0 | 0.00 | | | | | | |
| Yield: No. Enrolled at Southeast | | | | | | | | | | |
| UNIT Totals | | | 0 | 0.00 | | | | | | |
| ECOLOGY/ENVSTUDIES [838] | | | 0 | 0.00 | | | | | | |
| ENVIRONMENTALCONTRLTECH [672] | | | 0 | 0.00 | | | | | | |
| ENVIRONMENTALHEALTHENG [634] | | | 0 | 0.00 | | | | | | |

| SUMMARY UNDERGRADUATE | | |
|----------------------------------|------|-------|
| | Mean | Trend |
| Yield: No. Enrolled at Southeast | | |
| UNIT Totals | 0.0 | |
| ECOLOGY/ENVSTUDIES [838] | 0.0 | |
| ENVIRONMENTALCONTRLTECH [672] | 0.0 | |
| ENVIRONMENTALHEALTHENG [634] | 0.0 | |

Additional Data Available at http://www.missourieconomy.org/occupations/occ_proj.stm

UNDERGRADUATE

Brief Conclusion from Data

The ACT data do not provide information that is supportive or useful for Environmental Science.

The structure of the ACT interest areas is archaic and pre-dates development of the modern field of environmental science. There is no specific interest area identified as environmental science.

Taken at face value, the data show low overall interest in environmental areas and a zero yield of students enrolling at Southeast.

Additional Data or Comments

None.

Plan to Address

ACT data are not a useful means of gauging external demand in Environmental Science.

Societal interest in environmental issues, “going green”, and sustainability are substantial and increasing. It is expected that there will be a growing demand for academic environmental programs. The ACT data are not structured to reflect or accurately measure this expectation.

The future demand for environmental professionals is expected to be strong, both within the state (The Missouri Green Jobs Report, Missouri Economic Research and Information Center, 2009) and nationally (America’s Best Careers, U.S. News & World Report, May 2010)

According to the U.S. Bureau of Labor Statistics, “Employment of environmental scientists is expected to increase by 25 percent between 2006 and 2016, much faster than the average for all occupations.” (<http://www.bls.gov/oco/ocos050.htm#outlook>)

Brief Follow Up on Outcomes of Plans to Address from Last Review

None.

Program Review Final University Committee Chair Comments

VI. QUALITY OF PROGRAM INPUTS

| UNDERGRADUATE | | | | | |
|-----------------------------|-------|-------|-------|--------|--------|
| Measure | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| ACT | 22.60 | 24.25 | 24.25 | | |
| Selected Merit Scholarships | 0.00 | 3.00 | 2.00 | | |
| High School GPA | 2.98 | 3.45 | 3.56 | | |
| CBASE Composite | 0.00 | 0.00 | 0.00 | | |
| CBASE English | 0.00 | 0.00 | 0.00 | | |
| CBASE Math | 0.00 | 0.00 | 0.00 | | |
| CBASE Science | 0.00 | 0.00 | 0.00 | | |
| CBASE Social Studies | 0.00 | 0.00 | 0.00 | | |
| CBASE Writing | 0.00 | 0.00 | 0.00 | | |

| COMPARISONS UNDERGRADUATE | | | | | | | | | | | | | | | |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|-----|--------|------|-----|
| | AY07 | | | AY08 | | | AY09 | | | Year 4 | | | Year 5 | | |
| | COLL | UNIV | NAT | COLL | UNIV | NAT | COLL | UNIV | NAT | COLL | UNIV | NAT | COLL | UNIV | NAT |
| ACT | 23.53 | 22.24 | 21.10 | 24.08 | 22.38 | 21.20 | 24.49 | 22.59 | 21.10 | | | | | | |
| High School GPA | 3.47 | 3.31 | | 3.52 | 3.29 | | 3.68 | 3.40 | | | | | | | |
| CBASE Composite | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | | |
| CBASE English | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | | |
| CBASE Math | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | | |
| CBASE Science | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | | |
| CBASE Social Studies | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | | |
| CBASE Writing | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | | |

| SUMMARY UNDERGRADUATE | | |
|-----------------------|-------|-----------|
| Measure | Mean | Trend |
| ACT | 23.76 | Irregular |
| High School GPA | 3.33 | Improving |
| CBASE Composite | 0.00 | Static |

UNDERGRADUATE

Brief Conclusion from Data

The ACT, GPA, and scholarship data indicate that Environmental Science is attracting students comparable in quality to the CoSM average and above or equal to the University average.

The three year average ACT score for Environmental Science students was 23.76. For CoSM the three year average ACT was 24.03 and the University three year average ACT score was 22.40.

The three year average entering students' high school GPAs for Environmental Science, CoSM, and the University were 3.33, 3.56, and 3.33, respectively.

Over the three years of data reported, 29% of entering Environmental Science students were awarded selected merit scholarships. Overall for CoSM, 31% of entering students were awarded selected merit scholarships.

Additional Data or Comments

None.

Plan to Address

The quality of program inputs is currently satisfactory. Our entering students are comparable to students entering other majors in CoSM.

Brief Follow Up on Outcomes of Plans to Address from Last Review

None

Program Review Final University Committee Chair Comments

VII. QUALITY OF PROGRAM OUTPUTS

| WP003 UNDERGRADUATE | | | | | | | | | | |
|---------------------------|------|--------|------|--------|------|--------|--------|---|--------|---|
| | AY07 | | AY08 | | AY09 | | Year 4 | | Year 5 | |
| | N | % | N | % | N | % | N | % | N | % |
| >= 9.5 (superior) | 1 | 33.33 | 1 | 14.28 | 0 | 0.00 | | | | |
| 8.0 - 9.0 (proficiency) | 1 | 33.33 | 5 | 71.42 | 4 | 66.66 | | | | |
| 7.0 - 7.5 (marginal pass) | 1 | 33.33 | 1 | 14.28 | 2 | 33.33 | | | | |
| < 7.0 (fail) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | | | | |
| Unit First Time Pass Rate | 3 | 100.00 | 7 | 100.00 | 6 | 100.00 | | | | |
| Unit Mean | 3 | 8.83 | 7 | 8.28 | 6 | 8.08 | | | | |

| WP003 COMPARISONS UNDERGRADUATE | | | | | |
|---------------------------------|--------|-------|-------|--------|--------|
| | AY07 | AY08 | AY09 | Year 4 | Year 5 |
| College Mean | 8.26 | 8.40 | 8.67 | | |
| College Pass Rate | 100.00 | 99.31 | 98.13 | | |
| University Mean | 8.25 | 8.34 | 8.35 | | |
| University Pass Rate | 97.99 | 98.74 | 98.23 | | |

| WP003 SUMMARY UNDERGRADUATE | | | |
|-----------------------------|--|------|-----------|
| Method | | Mean | Trend |
| WP003 Mean | | 8.25 | Declining |

UNDERGRADUATE

Brief Conclusion from Data

The WP003 data show that writing skills of Environmental Science students are at an acceptable, though not outstanding, level.

The Unit First Time Pass Rate has consistently been 100%.

The three year average Environmental Science score for WP003 is below that for CoSM, but above that for the University.

The dip in Unit Mean score for AY09 is not seen as significant, but bears watching.

Additional Data or Comments

None.

Plan to Address

Performance on the WP003 exam seems adequate.

Brief Follow Up on Outcomes of Plans to Address from Last Review

None.

Program Review Final University Committee Chair Comments

VIII. CURRENCY OF CURRICULUM

UNDERGRADUATE

What steps have you taken to ensure that your programs and courses are up-to-date and effective?

The currency and effectiveness of courses are assessed through the tenure and promotion review process.

Environmental Science does not have a tenure and promotion review process because all faculty teaching EV courses are based in home departments.

Environmental Science relies upon the conscientious application and effectiveness of the departmental review processes.

Program Review Final University Committee Chair Comments

IX. IMPACT, JUSTIFICATION, AND OVERALL ESSENTIALITY TO THE SOUTHEAST MISSION

UNDERGRADUATE

Perhaps the most significant impact of Environmental Science on the University is as a model for integrated interdisciplinary, interdepartmental approaches to higher education. There is growing recognition that important scholarly, scientific, and societal issues transcend the boundaries of traditional academic disciplines. Moreover, Environmental Science has successfully demonstrated that interdisciplinary and interdepartmental approaches can be implemented at Southeast Missouri State University in a highly cost effective manner.

Southeast has justifiably gained national recognition for the University Studies Program, which emphasizes the importance of interdisciplinary education. Environmental Science is arguably the most inter-disciplinary degree program at the University. Environmental issues are inherently polycentric or multi-dimensional, involving a complex interplay of scientific, social, political, economic, legal, and ethical factors. The curricula of University Studies and Environmental Science provide students with both a breadth of relevant non-science courses and a depth of training in the sciences needed to successfully address the complexity of environmental issues facing society.

The new Strategic Plan for the University established as a priority to “promote safety and sustainability and lead the region’s efforts to protect the environment and conserve natural resources”.

Environmental Science makes a unique contribution to the University with regard to this priority. The environmental professionals trained at Southeast will provide future essential and invaluable services through their leadership in:

- protection of air soil, and water quality through pollution prevention
- wise stewardship of living and non-living natural resources
- management of municipal, industrial, and agricultural wastes
- protection of human health from environmentally related illness
- mitigation of human impacts on natural ecosystems
- remediation of past pollution and environmental hazards
- assisting business and industry in compliance with environmental regulations

Program Review Final University Committee Chair Comments

X. PLANNING FOR THE FUTURE

Given impending personnel and environmental changes, how do you envision the configuration of your unit in five years? What components would be phased out? What components would be reduced in size? What components will have grown? What new components will have been developed? What other units might be involved in the new components?

UNDERGRADUATE

The presence of a new community college in the region should not have a negative impact on Environmental Science. The currently envisioned curriculum at the local junior college would not overlap with our current offerings in Environmental Science.

If the community college becomes established and successful, it would be possible to explore development of a joint two-year program for environmental technicians. There is workforce demand for trained technicians who do not need the depth and breadth of scientific training of a B.S. degree program.

Development of the community college is not a threat to Environmental Science and may provide a beneficial opportunity.

Southeast Missouri State University and the larger community of universities and colleges have recognized the importance of “sustainability”. Witness the formation of the Association for Advancement of Sustainability in Higher Education (AASHE) and the recent membership of Southeast in AASHE. Southeast is in the earliest stages of exploration and implementation of sustainability.

Environmental Science is at the bedrock of sustainability.

Environmental Science should be the coordinating program for the development of sustainability curricula.

It would be highly desirable to incorporate sustainability concepts into UI 100 since this is the only course required of all students at Southeast.

Efforts are underway for development of an undergraduate curriculum in sustainability and there have been discussions of development of a masters program in sustainability. These curricular initiatives would be inherently multi-disciplinary and would extend beyond CoSM.

Program Review Final University Committee Chair Comments

DEANS' COMMENTS

Final University Committee Chair Comments on Entire Document

Provost's Decision

