

Environmental Science & Resource Mgmt (ESRM) Program Review

2011-2012

1. Program Description

A. Description

Environmental Science is a multidisciplinary field integrating topics from the geosciences, physical sciences, biological sciences, and public policy (including economic, legal, and social aspects) as they pertain to understanding working of the earth's ecosystems and the interplay of humans within those systems.

B. Program Student Learning Outcomes - Successful students in the program are able to:

C. College Level Student learning Outcomes

1. Critical Thinking and Problem Solving
2. Communication
3. Information Competency

D. Estimated Costs (Required for Certificate of Achievement ONLY)

	Cost
Enrollment Fees	
Books	
Supplies	
Total	

E. Criteria Used for Admission

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F. Vision

Ventura College will be a model community college known for enhancing the lives and economic futures of its students and the community.

G. Mission

Ventura College, one of the oldest comprehensive community colleges in California, provides a positive and accessible learning environment that is responsive to the needs of a highly diverse student body through a varied selection of disciplines, learning approaches and teaching methods including traditional classroom instruction, distance education, experiential learning, and co-curricular activities. It offers courses in basic skills; programs for students seeking an associate degree, certificate or license for job placement and advancement; curricula for students planning to transfer; and training programs to meet worker and employee needs. It is a leader in providing instruction and support for students with disabilities. With its commitment to workforce development in support of the State and region's economic viability, Ventura College takes pride in creating transfer, career technical and continuing education opportunities that promote success, develop students to their full potential, create lifelong learners, enhance personal growth and life enrichment and foster positive values for successful living and membership in a multicultural society. The College is committed to continual assessment of learning

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outcomes in order to maintain high quality courses and programs. Originally landscaped to be an arboretum, the College has a beautiful, park-like campus that serves as a vital community resource.

H. Core Commitments

Ventura College is dedicated to following a set of enduring Core Commitments that shall guide it through changing times and give rise to its Vision, Mission and Goals.

- Student Success
- Respect
- Integrity
- Quality
- Collegiality
- Access
- Innovation
- Diversity
- Service
- Collaboration
- Sustainability
- Continuous Improvement

I. Degrees/Certificates

Program's courses are designed to articulate to UC and CSU for transfer students.

J. Program Strengths, Successes, and Significant Events

The ESRM program has been in pace since Fall 2006, augmenting the one ES class offered prior to that time . The courses enjoy healthy enrollment, despite often being offered at sub-prime times (afternoons!) . In many cases they have been overenrolled, because the classrooms used are low seat count. Larger classrooms and better time slots would likely lead to significantly increase enrollment.

4 different faculty members from 4 different backgrounds teach the courses, mirroring the interdisciplinary nature of this field of study.

Due to limited scheduling of ESRM 1 and ESRM 3, the number of Proficiency Awards granted has been small to date, but many students do indicated an interest in getting the Award, but are unable to get it to work in their schedule.

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K. Organizational Structure

President: Robin Calote

Executive Vice President: Ramiro Sanchez

Dean: David Oliver

Department Chair:

Instructors and Staff

Name	Steve Palladino (Lead ESRM professor)
Classification	Professor
Year Hired	January, 1999
Years of Work-Related Experience	11 years of prior education-related experience
Degrees/Credentials	B.A. Environmental Studies/Geography, M.A. Geography, Cal Single Subject Teaching Credential

Name	Bill Budke
Classification	Associate Professor
Year Hired	Fall 2004
Years of Work-Related Experience	15 years in Environmental Compliance and Remediation
Degrees/Credentials	A.A., B.A., M.S.

Name	
Classification	
Year Hired	
Years of Work-Related Experience	
Degrees/Credentials	

Name	
Classification	
Year Hired	
Years of Work-Related Experience	
Degrees/Credentials	

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2. Performance Expectations

A. Program Student Learning Outcomes - Successful students in the program are able to:

B. Student Success Outcomes

1. The program will increase its retention rate from the average of the **program's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.
2. The program will increase its retention rate from the average of the **college's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.
3. The program will increase the student success rates from the average of the **program's** prior three-year success rates. The student success rate is the percentage of students who receive a grade of c or better.
4. The program will increase the student success rates from the average of the **college's** prior three-year success rates. The student success rate is the percentage of students who receive a grade of C or better.
5. Students will complete the program earning certificates and/or degrees.

C. Program Operating Outcomes

1. The program will maintain WSCH/FTEF above the 525 goal set by the district.
2. Inventory of instructional equipment is functional, current, and otherwise adequate to maintain a quality-learning environment. Inventory of all equipment over \$200 will be maintained and a replacement schedule will be developed. Service contracts for equipment over \$5,000 will be budgeted if funds are available.

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D. Courses to Student Learning Outcomes Map

Course to Program-Level Student Learning Outcome Mapping (CLSLO)

I: This program-level student learning outcome is **INTRODUCED** in this course.

P: This program-level student learning outcome is **PRACTICED** in this course.

M: This program-level student learning outcome is **MASTERED** in this course.

Leave blank if program-level student learning outcome is not addressed.

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3. Operating Information

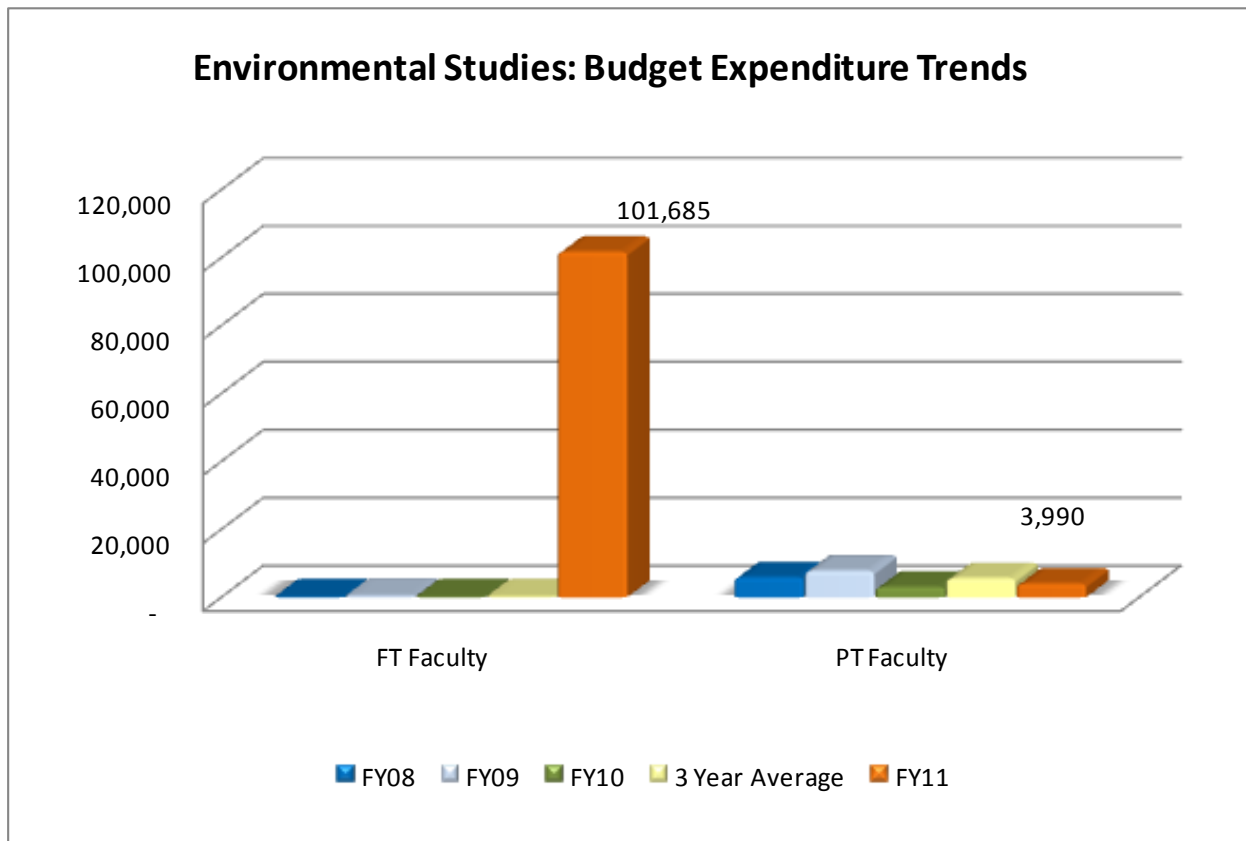
A1: Budget Summary Table

To simplify the reporting and analysis of the Banner budget detail report, the budget accounts were consolidated into nine expense categories. The personnel categories include employee payroll expenses (benefits). The “3 Year Average” was computed to provide a trend benchmark to compare the prior three year expenses to the FY11 expenses. The “FY11 College” expense percentages are included to provide a benchmark to compare the program’s expenses to the overall college expenses.

Category	Title	FY08	FY09	FY10	3 Year Average	FY11	FY11 Program	FY11 College
1	FT Faculty	230	621	239	363	101,685	27887%	12%
2	PT Faculty	5,849	7,787	2,984	5,540	3,990	-28%	-10%
	Total	6,079	8,408	3,223	5,903	105,675	1690%	0%

A2: Budget Summary Chart

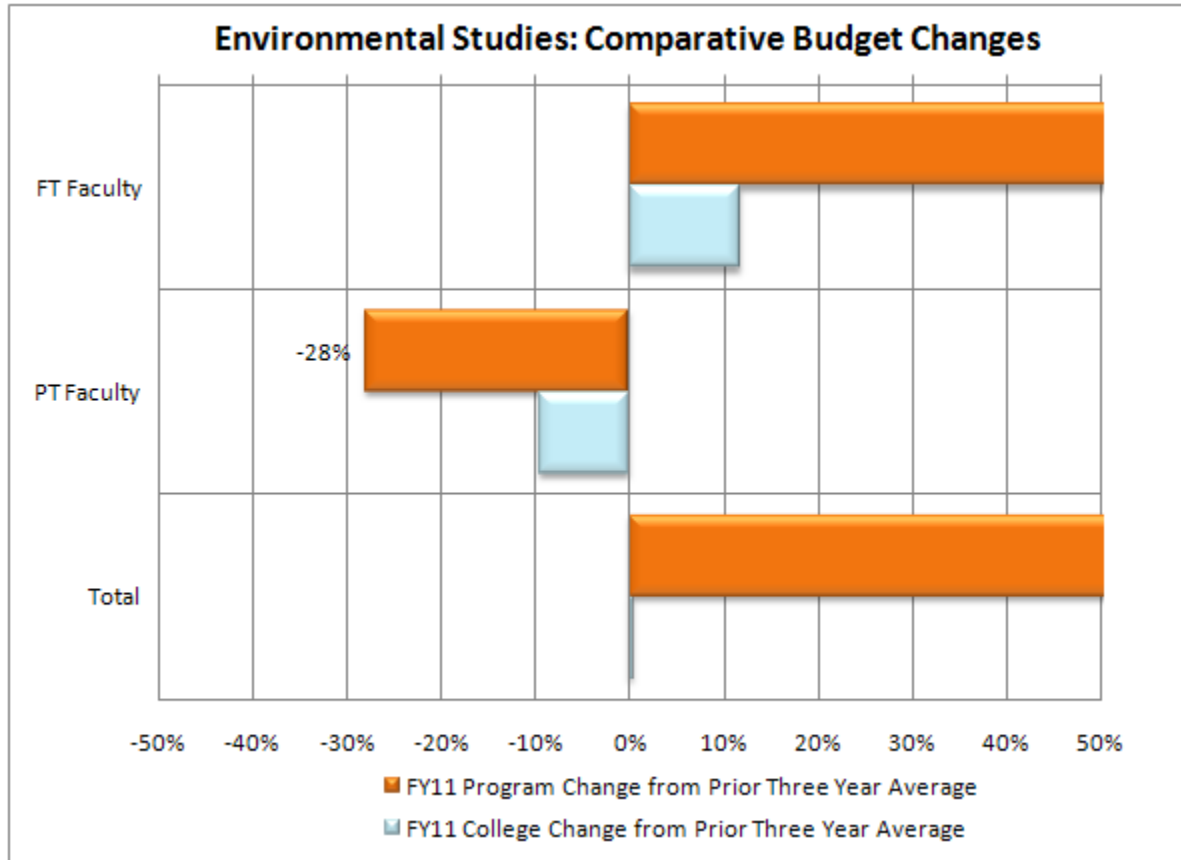
This chart illustrates the program’s expense trends. The data label identifies the FY11 expenses (the last bar in each group). The second-to-last bar is the program’s prior three year average.



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A3: Comparative Budget Changes Chart

This chart illustrates the percentage change from the prior three year average expense to the FY11 expenses. The top bar for each budget category represents the program's change in expenses and includes the data label. The second bar represents the college's change in expenses.



A4: Budget Detail Report

The program's detail budget information is available in *Appendix A – Program Review Budget Report*. This report is a PDF document and is searchable. The budget information was extracted from the District's Banner Financial System. The program budget includes all expenses associated to the program's Banner program codes within the following funds: general fund (111), designated college equipment fund (114-35012), State supplies and equipment funds (128xx), and the technology refresh fund (445). The *Program Review Budget Report* is sorted by program (in alphabetical order) and includes the following sections: total program expenses summary; subtotal program expenses for each different program code; detail expenses by fund, organization and account; and program inventory (as posted in Banner). To simplify the report, the Banner personnel benefit accounts (3xxx) were consolidated into employee type benefit accounts (3xxx1 = FT Faculty, 3xxx2 = PT Faculty, 3xxx3 = Classified, etc.).

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A5: Interpretation of the Program Budget Information

The 2011 jump in FT Faculty costs from practically \$0 to over \$100,000 is anomalous. This amount is unexplained and surely is an error. There was no FT hire for the 2011 budget year (nor has there been since then.) It is possible that this amount was a place holder for the 2012 budget year hire of a faculty member in Environmental Technology/Water Science. ET/Water Science are totally different programs over in CTE, thus if this bump up is for that faculty member, it should not be accounted for in this program and should be removed. ESRM is still staffed by hourly faculty (part-time and full-time seeking overload). Steve Palladino has had his one class in this area sometimes count toward FT load, but that was with a GIS course being the extra hourly for him that semester.

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B1: Program Inventory Table

This chart shows the inventory (assets) as currently posted in the Banner Financial System. This inventory list is not complete and will require review by each program. Based on this review an updated inventory list will be maintained by the college. A result of developing a complete and accurate inventory list is to provide an adequate budget for equipment maintenance and replacement (total-cost-of-ownership). The college will be working on this later this fall.

Item	Vendor	Org	Fund	Purchased	Age	Price	Perm Inv #	Serial #
No equipment inventory in the Banner Assets system								

B2: Interpretation of the Program Inventory Information

Currently there are no resources specifically identified with ESRM, but Bill Budke as part of his grants and work in Agricultural Science has various equipment items that may eventually be associated with this program.

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C1: Productivity Terminology Table

Sections	A credit or non-credit class. Does not include not-for-credit classes (community education).
Census	Number of students enrolled at census (typically the 4 th week of class for fall and spring).
FTES	Full Time Equivalent Students A student in the classroom 15 hours/week for 35 weeks (or two semesters) = 525 student contact hours. 525 student contact hours = 1 FTES. Example: 400 student contact hours = $400/525 = 0.762$ FTES. The State apportionment process and District allocation model both use FTES as the primary funding criterion.
FTEF	Full Time Equivalent Faculty A faculty member teaching 15 units for two semesters (30 units for the year) = 1 FTE. Example: a 6 unit assignment = $6/30 = 0.20$ FTEF (annual). The college also computes semester FTEF by changing the denominator to 15 units. However, in the program review data, all FTE is annual. FTEF includes both Full-Time Faculty and Part-Time Faculty. FTEF in this program review includes faculty assigned to teach extra large sections (XL Faculty). This deviates from the district practice of not including these assignments as part of FTEF. However, it is necessary to account for these assignments to properly produce represent faculty productivity and associated costs.
Cross Listed FTEF	FTEF is assigned to all faculty teaching cross-listed sections. The FTEF assignment is proportional to the number of students enrolled at census. This deviates from the practice of assigning load only to the primary section. It is necessary to account for these cross-listed assignments to properly represent faculty productivity and associated costs.
XL FTE	Extra Large FTE: This is the calculated assignment for faculty assigned to extra large sections (greater than 60 census enrollments). The current practice is not to assign FTE. Example: if census > 60, 50% of the section FTE assignment for each additional group of 25 (additional tiers).
WSCH	Weekly Student Contact Hours The term "WSCH" is used as a total for weekly student contact hours AND as the ratio of the total WSCH divided by assigned FTEF. Example: 20 sections of 40 students at census enrolled for 3 hours per week taught by 4.00 FTEF faculty. $(20 \times 40 \times 3) = 2,400$ WSCH / 4.00 FTEF = 600 WSCH/FTEF.
WSCH to FTES	Using the example above: $2,400$ WSCH x 35 weeks = 84,000 student contact hours = $84,000 / 525 = 160$ FTES (see FTES definition). Simplified Formulas: $FTES = WSCH/15$ or $WSCH = FTES \times 15$
District Goal	Program WSCH ratio goal. WSCH/FTEF The District goal was set in 2006 to recognize the differences in program productivity.

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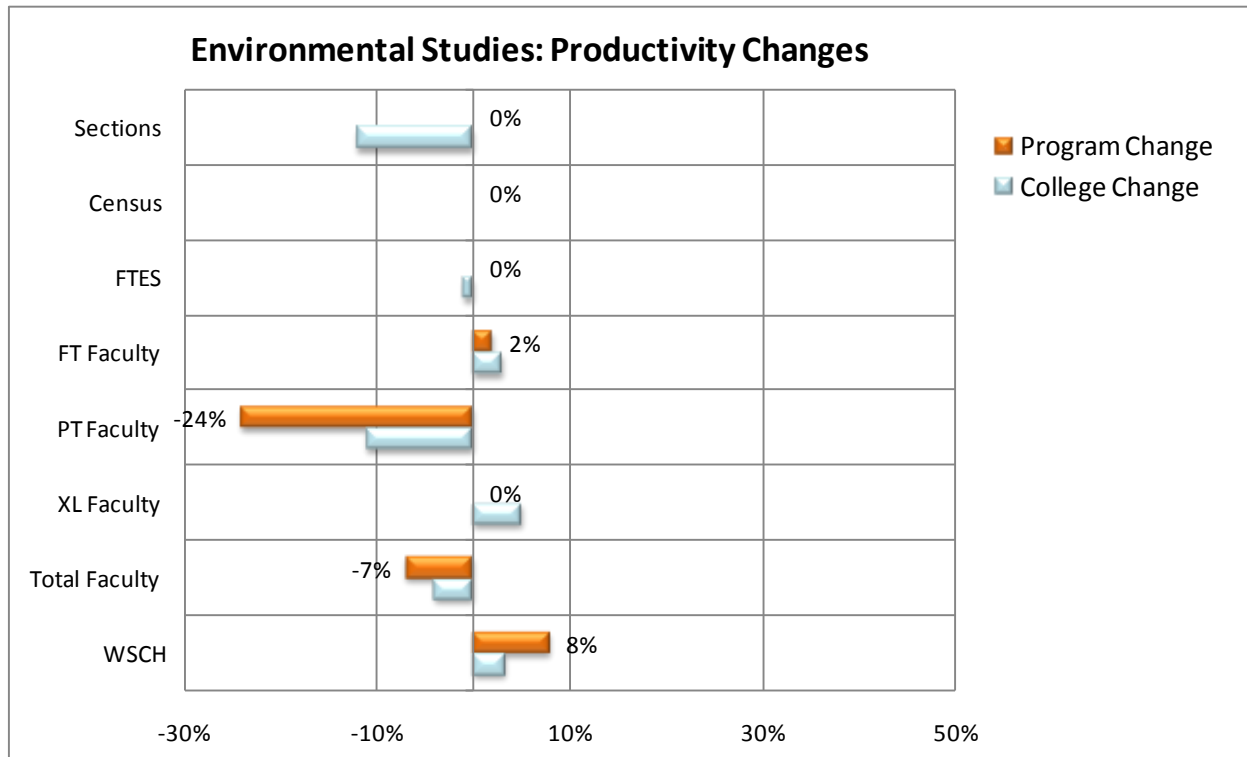
C2: Productivity Summary Table

This table is a summary of the detail information provided in the *Program Review Productivity Report*. The “3 Year Average” was computed to provide a trend benchmark to compare the results of the prior three years to the FY11 results. The “FY11 College” percentages are included to provide a benchmark to compare the program’s percentages.

Title	FY08	FY09	FY10	3 Year Average	FY11	Program Change	College Change
Sections	7	5	6	6	6	0%	-12%
Census	118	105	161	128	128	0%	0%
FTES	12	11	16	13	13	0%	-1%
FT Faculty	0.25	0.23	0.28	0.26	0.26	2%	3%
PT Faculty	0.21	0.08	0.16	0.15	0.11	-24%	-11%
XL Faculty	-	-	-	-	-	0%	5%
Total Faculty	0.46	0.31	0.44	0.41	0.38	-7%	-4%
WSCH	391	532	545	476	513	8%	3%

C3: Comparative Productivity Changes Chart

This chart illustrates the percentage change from the prior three year average productivity to the FY11 productivity. The top bar for each budget category represents the program’s change in productivity and includes the data label. The second bar represents the college’s change in productivity.



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C4: Interpretation of the Program Productivity Information

The ESRM program has been stable, offering ESRM 1 & 3 once a year and ESRM 2 and ESRM 14 (AG 54) twice a year for a 6 section total. In FY 07 7 sections are listed, but one was a web based section that was experimental and wasn't repeated.

The changes in FT vs PT are minor, though it appears that PT drops off significantly, but in the end the same faculty members have been teaching the courses so we are not sure why there is a discrepancy in the numbers.

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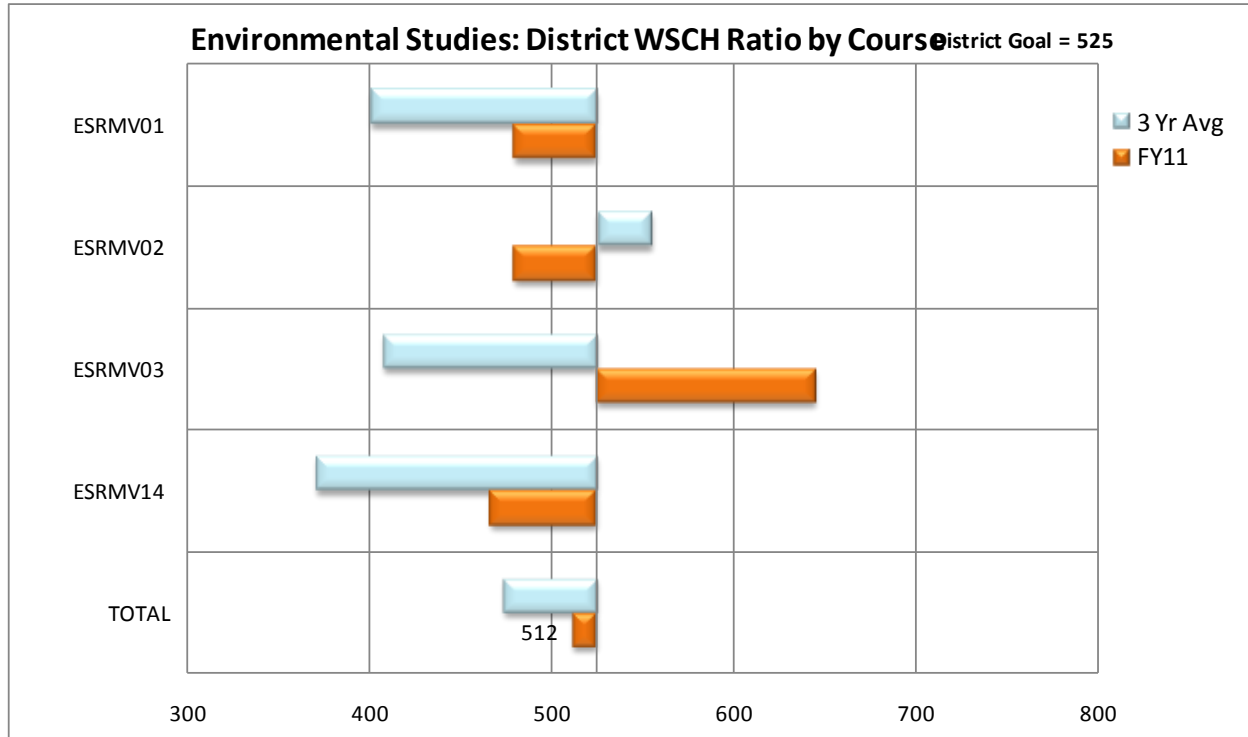
D1: District WSCH Ratio Productivity Table

This table shows the District WSCH ratio (WSCH/FTEF) for each course by year for this program. Courses not offered during FY11 (last year) or without faculty load (independent study) are excluded. Because these are ratios, the combined average is computed using total WSCH and total FTEF (not the average of ratios). The formula used in this table distributes FTEF to all cross-listed sections (proportional to census enrollment) but does not include the associated faculty costs of extra large assignment. District WSCH Ratio = WSCH / (PT FTE + FT FTE).

District WSCH Ratio: Weekly Student Contact Hours/(FT FTE+PT FTE)										
Course	Title	FY08	FY09	FY10	3 Yr Avg	FY11	Change	Dist Goal	% Goal	
ESRMV01	Intro to Environmental Issues	390	510	345	401	480	20%	525	91%	
ESRMV02	Intro to Environmental Science	443	548	675	555	480	-14%	525	91%	
ESRMV03	Environ & Natural Resource Mgt	311	-	585	408	645	58%	525	123%	
ESRMV14	Conservation Natural Resource	339	384	381	371	467	26%	525	89%	
TOTAL	Annual District WSCH Ratio	381	509	547	474	512	8%	525	98%	

D2: District WSCH Ratio Productivity Chart

This chart illustrates the course level District WSCH ratio. The top bar shows the program's three year average. The second bar shows the program's FY11 WSCH ratio. The axis represents the District WSCH ratio goal set in 2006. The program's (or subject's) total WSCH ratio is shown as the TOTAL at the bottom of the chart.



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D3: College WSCH Ratio Productivity Table

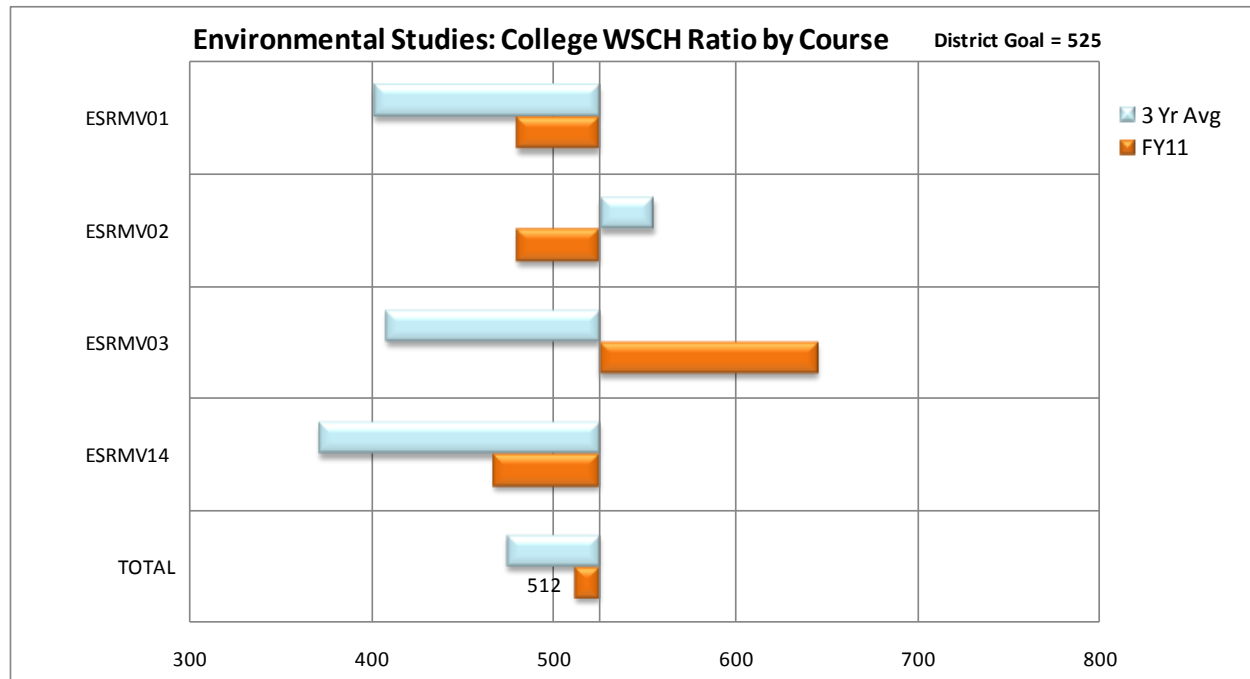
This table shows the College's WSCH ratio (WSCH/FTEF) for each course by year for the program. Courses not offered during FY11 (last year) or without faculty load (independent study) are excluded. Because these are ratios, the combined average is computed using total WSCH and total FTEF (not the average of ratios). The formula used in this table includes the associated faculty costs of extra large sections. Faculty teaching extra large sections are paid stipends equal to 50% of their section FTE assignment for each group of 25 students beyond the first 60 students (calculated in this table as XL FTE). This College WSCH Ratio is a more valid representation of WSCH productivity. The College WSCH Ratio will be used in the program review process.

College WSCH Ratio = WSCH / (PT FTE + FT FTE + XL FTE)

College WSCH Ratio: Weekly Student Contact Hours/(FT FTE + PT FTE + XL FTE)										
Course	Title	FY08	FY09	FY10	3 Yr Avg	FY11	Change	Dist Goal	% Goal	
ESRMV01	Intro to Environmental Issues	390	510	345	401	480	20%	525	91%	
ESRMV02	Intro to Environmental Science	443	548	675	555	480	-14%	525	91%	
ESRMV03	Environ & Natural Resource Mgmt	311	-	585	408	645	58%	525	123%	
ESRMV14	Conservation Natural Resource	339	384	381	371	467	26%	525	89%	
TOTAL	Annual College WSCH Ratio	381	509	547	474	512	8%	525	98%	

D4: College WSCH Ratio Productivity Chart

This chart illustrates the course level College WSCH ratio. The top bar shows the program's three year average. The second bar shows the FY11 WSCH ratio. The axis represents the District WSCH ratio goal set in 2006. The program's (or subject's) total WSCH ratio is shown as the TOTAL at the bottom of the chart. The computation used for the College WSCH Ratio includes XL FTE (extra-large sections) and the assignment of FTEF to all cross-listed sections (proportional to census enrollment).



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D5: Productivity Detail Report

The program's detail productivity information is available in *Appendix B – Program Review Productivity Report*. This report is a PDF document and is searchable. The productivity information was extracted from the District's Banner Student System. The productivity information includes all information associated with the program's subject codes. The *Program Review Productivity Report* is sorted by subject code (alphabetical order) and includes the following sections: productivity measures and WSCH ratios by course by year.

D6: Interpretation of the Program Course Productivity Information

This program, despite being fairly new, has had consistently strong enrollment, despite using undersized facilities and less popular time slots (afternoon, including mid/late afternoon slots). With larger facilities and some classes moving into "primetime" the numbers would easily improve to go from just under the 525 productivity goal to being well over. The ability to now use SCI 106 (vacated by CAD) as a another place to schedule Geosciences courses (including ESRM) would give us a new location for ESRM courses (though once the computers are in that room the current seat count of 46 might drop a bit. ESRM will be a good candidate for the 100 seat lecture hall in the new ASC building (or to use other 50+ lecture halls in SCI that might become available as the ASC is brought on line.) In the interim, we'll hope to use SCI 116 (50-55 seats), SCI 106 (40-45 seats), or our lab classes (SCI 113 and SCI 119) that can also accommodate about 45.

It is likely with all four ESRM courses were offered every semester, with larger classrooms and better schedule times, we would still easily surpass the 525 goal.

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E1: Student Success Terminology

Census	Number of students enrolled at Census (typically the 4 th week of class for fall and spring). Census enrollment is used to compute WSCH and FTES for funding purposes.
Retain	Students completing the class with any grade other than W or DR divided by Census Example: 40 students enrolled, 5 students dropped prior to census, 35 students were enrolled at census, 25 students completed the class with a grade other than W or DR: Retention Rate = 25/35 = 71%
Success	Students completing the class with grades A, B, C, CR or P divided by Census Excludes students with grades D, F, or NC.

E2: Student Success Summary

The following two tables summarize the detail information provided in the *Appendix C - Program Review Student Success Report*. The first table shows the number of students. The second table shows the percentage of students. Both tables show the distribution of student grades by year for the program (subject). They show the number of students who were counted at census, completed the class (retention), and were successful. The “3 Year Average” was computed to provide a trend benchmark to compare the prior three year expenses to the FY11 success measures. The “College” success percentages are included to compare the results of the program to the results of the college.

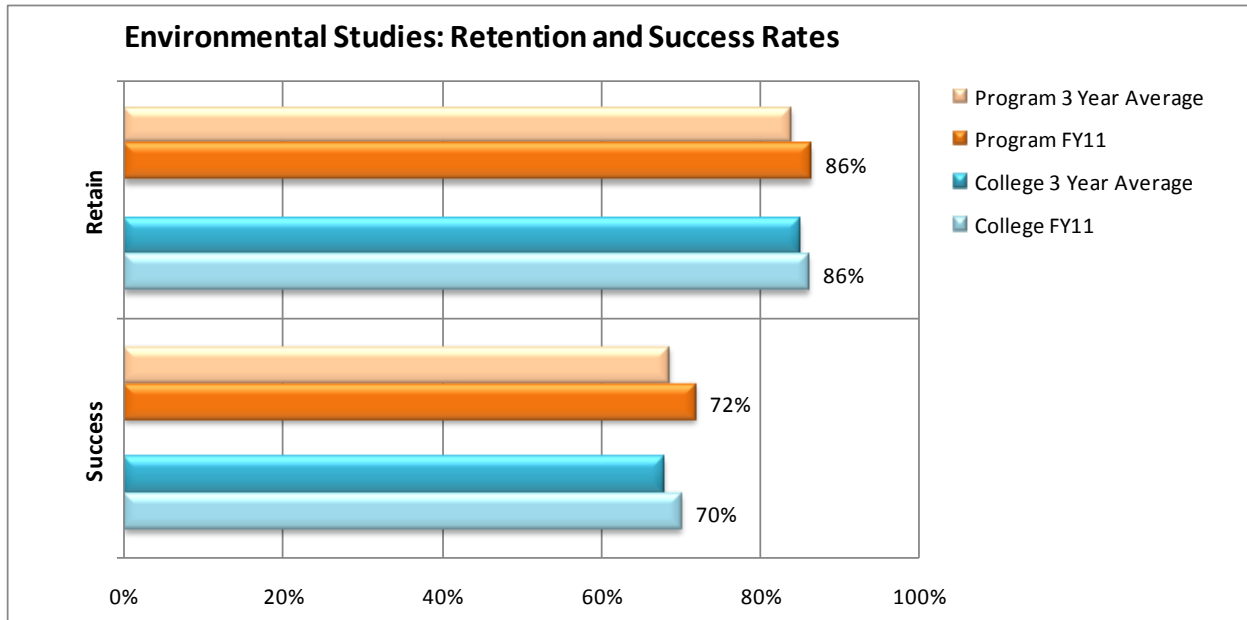
Subject	Fiscal Year	A	B	C	P/CR	D	F	W	NC	Census	Retain	Success
ESRM	FY08	25	22	22	-	4	12	30	-	115	85	69
ESRM	FY09	23	29	15	1	6	12	14	-	100	86	68
ESRM	FY10	51	41	25	-	6	19	16	-	158	142	117
ESRM	3 Year Avg	33	31	21	-	5	14	20	-	124	104	85
ESRM	FY11	43	30	16	-	6	10	17	2	124	107	89
Subject	Fiscal Year	A	B	C	P/CR	D	F	W	NC	Census	Retain	Success
ESRM	FY08	22%	19%	19%	0%	3%	10%	26%	0%		74%	60%
ESRM	FY09	23%	29%	15%	1%	6%	12%	14%	0%		86%	68%
ESRM	FY10	32%	26%	16%	0%	4%	12%	10%	0%		90%	74%
ESRM	3 Year Avg	27%	25%	17%	0%	4%	11%	16%	0%		84%	69%
ESRM	FY11	35%	24%	13%	0%	5%	8%	14%	2%		86%	72%
College	3 Year Avg	33%	19%	12%	5%	5%	10%	15%	2%		85%	68%
College	FY11	33%	20%	13%	3%	5%	10%	14%	2%		86%	70%

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E3: Retention and Success Rates

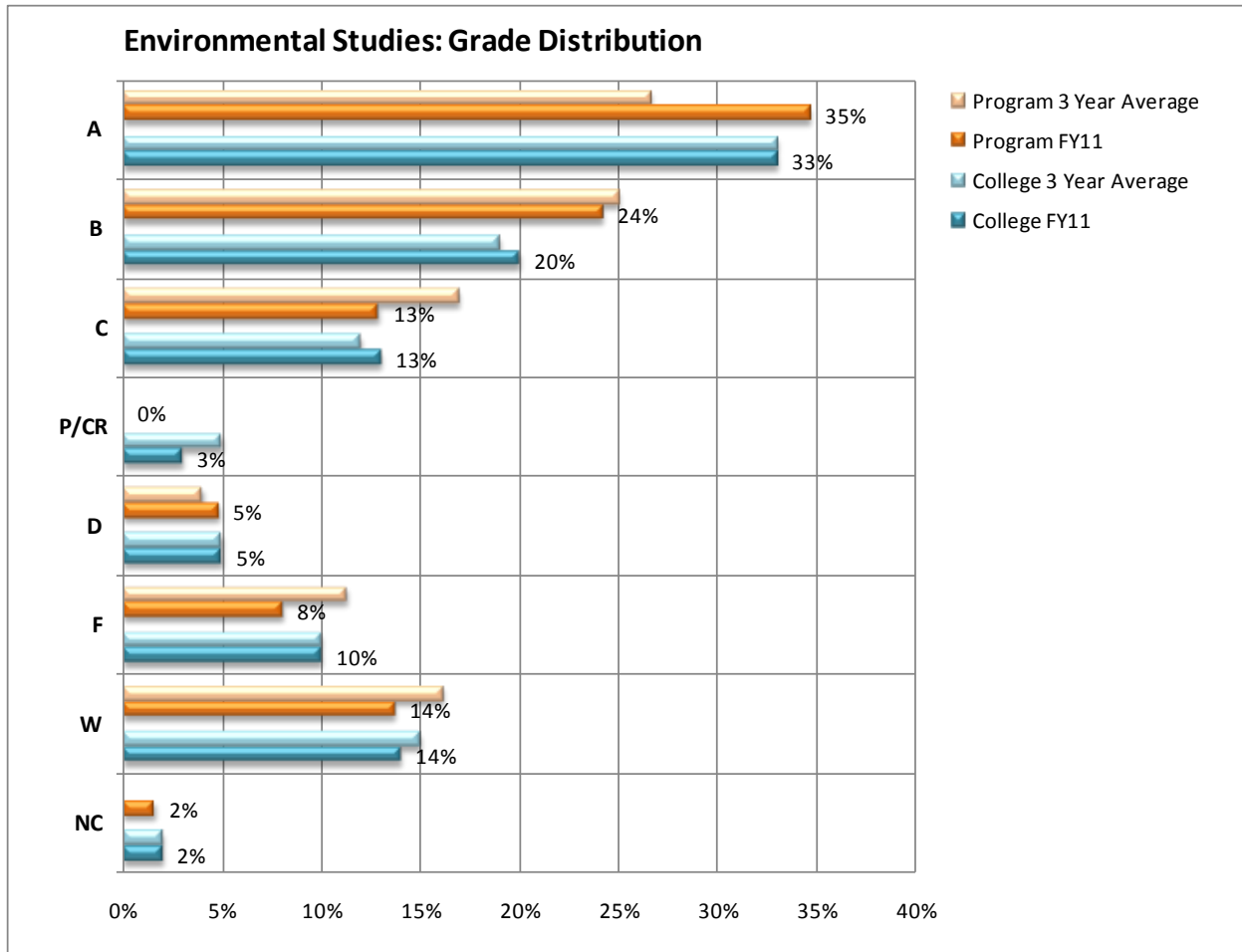
This chart illustrates the retention and success rates of students who were counted at census. Each measure has four bars. The first bar represents the program's prior three year average percent. The second bar shows last year's (FY11) percent. The third and fourth bars represent the overall college percents.



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E4: Grade Distribution

This chart illustrates the program's distribution of grades (by subject). Each grade has four bars. The first bar represents the program's prior three year average percent of grades. The second bar shows last year's (FY11) grade distribution percents. The third and fourth bars represent the overall college distribution percents.



E5: Student Success Detail Report

The program student success detail information is available in *Appendix C – Program Review Student Success Report*. This report is a PDF document and is searchable. The student success information was extracted from the District's Banner Student System. The student success information includes all information associated with the program's subject codes. The *Program Review Student Success Report* is sorted by subject code (alphabetical order) and includes the following sections: comparative summary and course detail by term. The following table defines the terminology.

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E6: Interpretation of Program Retention, Student Success, and Grade Distribution

The retention and success percentages are almost identical to the campus average and are very reasonable. Some of these are somewhat rigorous sciences courses, but they tend to attract more motivated students, so in the end the students rise to the challenge.

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F1: Program Completion – Student Awards

This table shows the number of students who completed a program certificate or degree during the fiscal year. Gender distribution is included. The following chart illustrates this information.

No certificates or degrees.

F2: Interpretation of the Program Completion Information

We have awarded a number of Proficiency Awards in Environmental Studies over the past few years. For a couple years, a required course (ESRM 3) wasn't offer due to initially the primary faculty member being unavailable, then due to campus policy of not reintroducing courses (without cutting elsewhere.) This prevented students from earning the award. Not offering ESRM 1 and ESRM 3 every semester also makes it difficult for some students who are interested in getting the award from completing the requirements.

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G1: Student Demographics Summary Tables

This table shows the program and college census enrollments for each demographic category. It also shows the average age of the students. The program FY11 results can be compared to its prior three year average, the college FY11 results, and the college prior three year average.

Subject	FY	Hispanic	White	Asian	Afr Am	Pac Isl	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
ESRM	FY08,	21	68	-	4	-	-	3	19	67	46	2	28
ESRM	FY09,	19	58	2	3	3	3	1	11	57	40	3	29
ESRM	FY10,	37	84	6	3	3	4	10	11	77	80	1	27
ESRM	3 Year Avg	26	70	3	3	2	2	5	14	67	55	2	28
ESRM	FY11	32	68	4	2	-	3	5	10	58	66	-	27
College	3 Year Avg	11,806	11,169	988	1,005	217	827	403	2,302	15,888	12,694	134	27
College	FY11	13,034	10,566	977	1,040	196	886	402	1,688	15,734	13,014	40	24

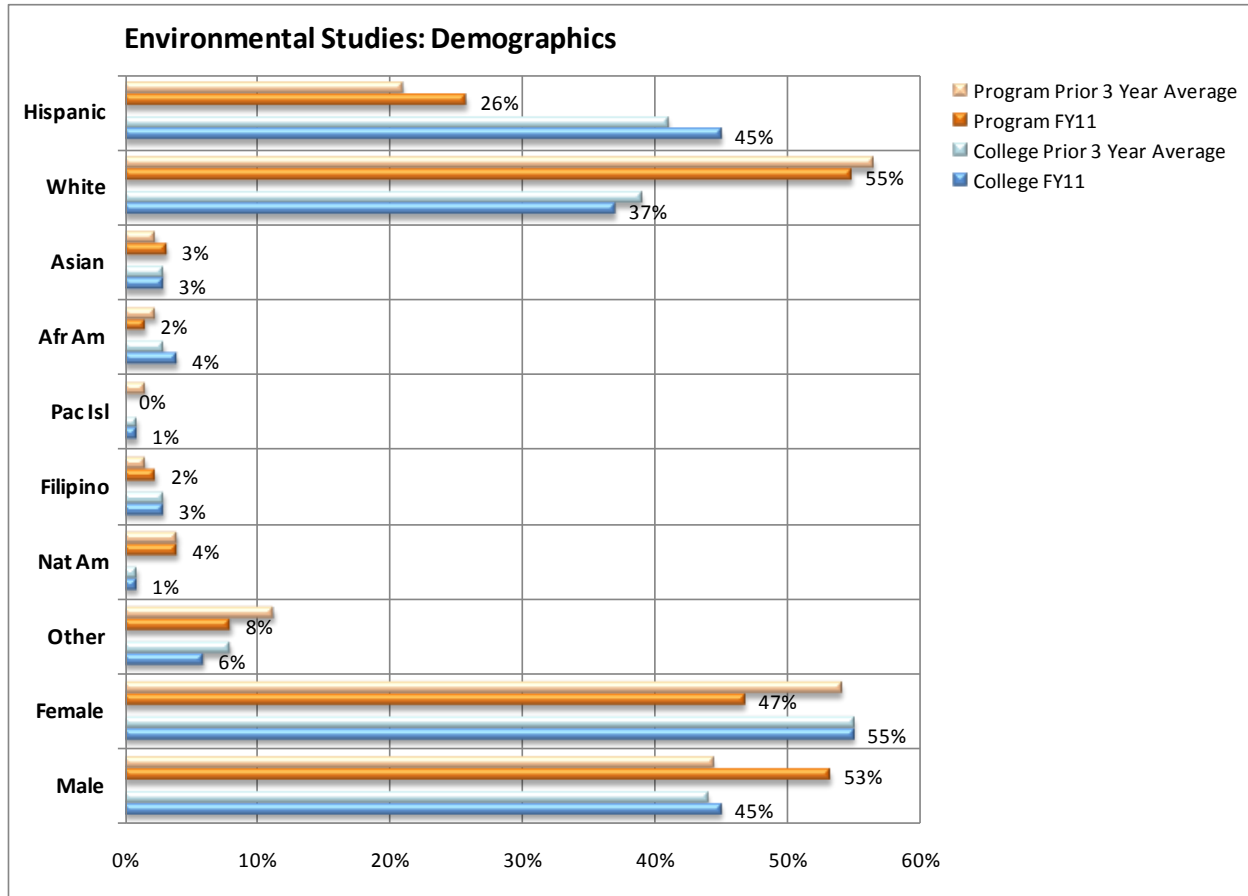
This table shows the program and college percentage of census enrollments for each demographic category.

Subject	FY	Hispanic	White	Asian	Afr Am	Pac Isl	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
ESRM	FY08,	18%	59%	0%	3%	0%	0%	3%	17%	58%	40%	2%	28
ESRM	FY09,	19%	58%	2%	3%	3%	3%	1%	11%	57%	40%	3%	29
ESRM	FY10,	23%	53%	4%	2%	2%	3%	6%	7%	49%	51%	1%	27
ESRM	3 Year Avg,	21%	56%	2%	2%	2%	2%	4%	11%	54%	44%	2%	28
ESRM	FY11	26%	55%	3%	2%	0%	2%	4%	8%	47%	53%	0%	27
College	3 Year Avg	41%	39%	3%	3%	1%	3%	1%	8%	55%	44%	0%	27
College	FY11	45%	37%	3%	4%	1%	3%	1%	6%	55%	45%	0%	24

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G2: Student Demographics Chart

This chart illustrates the program's percentages of students by ethnic group. . Each group has four bars. The first bar represents the program's prior three year percent. The second bar shows last year's (FY11) percent. The third and fourth bars represent the overall college percents.



G3: Student Demographics Detail Report

The program student success detail information is available in *Appendix D – Program Review Student Demographics Report*. This report is a PDF document and is searchable. The student success information was extracted from the District's Banner Student System. The student demographic information includes all information associated with the program's subject codes. The *Program Review Student Demographics Report* is sorted by subject code (alphabetical order) and includes the following sections: comparative summary by year, and detail demographics by term and course.

G4: Interpretation of the Program Demographic Information

Hispanic students are less represented in these courses than Whites. This may be true in general of the sciences (data not delineated by division) or could indicate that the subject area isn't on the "radar screen" for that population. Further study is warranted. It is interesting to note that American Indians seem to be much better represented (traditional sensitivity to the environment?) Male/Female ratios are similar to the campus population break down (with FY11 being slightly skewed towards Males).

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4. Performance Assessment

A1: Program-Level Student Learning Outcomes

Program-Level Student Learning Outcome 1	Performance Indicators
Operating Information	
Analysis – Assessment	

Program-Level Student Learning Outcome 2	Performance Indicators
Operating Information	
Analysis – Assessment	

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Program-Level Student Learning Outcome 3	Performance Indicators
Operating Information	
Analysis – Assessment	

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4B: Student Success Outcomes

Student Success Outcome 1	Performance Indicators
The program will increase its retention rate from the average of the program's prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.	The program will increase the retention rate by 2% or more above the average of the program's retention rate for the prior three years.
Operating Information	
Analysis – Assessment	

Student Success Outcome 2	Performance Indicators
The program will increase its retention rate from the average of the college's prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.	The program will increase the retention rate by 2% or more above the average of the college retention rate for the prior three years.
Operating Information	
Analysis – Assessment	

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Student Success Outcome 3	Performance Indicators
The program will increase the student success rates from the average of the program's prior three-year success rates. The student success rate is the percentage of students at census who receive a grade of C or better.	The program will increase student success rate by 2% or more above the program's average student success rate for the prior three years.
Operating Information	
Analysis – Assessment	

Student Success Outcome 4	Performance Indicators
The program will increase the student success rates from the average of the college's prior three-year success rates. The student success rate is the percentage of students at census who receive a grade of C or better.	The program student success will increase by 5% over the average of the college's student success rate for the prior three years.
Operating Information	
Analysis – Assessment	

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Student Success Outcome 5	Performance Indicators
Students will complete the program earning certificates and/or degrees.	Increase the number of students earning a certificate to a minimum of 20% of the number of students enrolled in second-year courses.
Operating Information	
Analysis – Assessment	

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C. Program Operating Outcomes

Program Operating Outcome 1	Performance Indicators
The program will maintain WSCH/FTEF above the 525 goal set by the district.	The program will exceed the efficiency goal of 525 set by the district by 2%.
Operating Information	
Analysis – Assessment	

Program Operating Outcome 2	Performance Indicators
Inventory of instructional equipment is functional, current, and otherwise adequate to maintain a quality-learning environment. Inventory of all equipment over \$200 will be maintained and a replacement schedule will be developed. Service contracts for equipment over \$5000 will be budgeted if funds are available.	A current inventory of all equipment in the program will be maintained. Equipment having a value over \$5000 will have a service contract. A schedule for service life and replacement of outdated equipment will reflect the total cost of ownership.
Operating Information	
The inventory list is out of date and needs to be reviewed (3B1)	
Analysis – Assessment	

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Program Operating Outcome 3	Performance Indicators
Operating Information	
Analysis – Assessment	

Program Operating Outcome 4	Performance Indicators
Operating Information	
Analysis – Assessment	

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5. Findings

Finding 1 - Student success and productivity numbers could be improved by better time and classroom scheduling. This includes continued use of SCI 106 not only for the GIS courses and some Engineering, but as overflow for Geosciences (including ESRM). To accomplish this, SCI 106 needs to be outfitted as a smart classroom (see more detailed comments found in the Geography/GIS Program Review).

Finding 2 - Student success and productivity could be enhanced both by Finding 1 when paired with the offering of additional courses. This would allow all four courses to be offered each semester. Multiple offerings of some of these classes each semester would also likely generate strong enrollment, but this may not be the time to ramp up that aggressively. So, at least, for now, beginning with offering ESRM 1 and ESRM 3 every semester, we will improve student opportunity for earning a proficiency award and for getting the ESRM courses they want.

We have a group of full-time and long-term part-time instructors from Political Science, Geosciences, and Biology covering these courses. Adding two sections a year would pull the Geosciences faculty away from Geography a bit, which would emphasize the already dire need for another full time Geosciences faculty member (see the Geography/GIS and Geology program reviews for details)

Finding 3 – Currently we do not have any lab oriented classes in ESRM. For many jobs in Environmental Sciences and Resource management, there are key hands on skill students will need. While some of these will be picked up in upper division courses for those students transferring, other students will go into the field armed with an liberal studies AA and our Proficiency Award. It would be very helpful to both of these groups to have some exposure to the tools used by professionals in these areas. Thanks to the various grants received by Bill Budke, we have most of the equipment needed to offer a lab course. This may be paired with one of the existing ESRM courses or be a standalone course. All that is needed is an investigation of the curriculum options/latest technologies, time to develop the course, and some supplies and limited updates to our current technology. Over time there will be a need for updated technologies, but that may be covered in future grants, if campus resources are not available.

Finding 4 – The ESRM program development was led by Steve Palladino and he continues to serve as the de facto program head (and with ESRM by default falling under Geosciences, he also is managing it as department chair). This appears to be a good solution as Geosciences most naturally bridges the whole spectrum of courses of this multidisciplinary program area. The Geosciences chair will continue to interface with the Biology and Social Sciences Chairs to coordinate the staff and scheduling of the co-listed courses (ESRM 1 and ESRM 2). It would be good to formalize this management structure and more formally establish the communication strategies for work between departments and faculty in this area. Unfortunately due to the extreme demands of managing 3 programs on only one class release a year (Geosciences has to unnecessarily share a year of one course of release with PHYS/ASTR/ENGR, when both program groupings could each be fully separate departments and get the full-year one course release.) This problem is address in the Geography/GIS Program Review Document in more detail, but it is worth identifying it here as a need. If Geosciences had the full release it deserves (and an additional faculty member) it would be able to give ESRM the directional/management energy required.

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6. Initiatives

Initiative – SCI 106 Smart Classroom

Initiative ID - ESRM #1-2011

Links to Finding 1 – ESRM courses will increasingly be taught in this space which currently has a jury rigged set up, but needs (along with other classes beginning to be taught in that space) to have a solid smart classroom set up.

Benefits: ESRM is a very visual discipline as we explore the Earth, Environmental Problems, and Technologies. Having internet connectivity and computer supported projection for presentation is vital.

Request for Resources – A full smart room set up

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	X
Requires computer equipment funds (hardware and software)	X
Requires college equipment funds (other than computer related)	X
Requires college facilities funds	
Requires other resources (grants, etc.)	

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Initiative – Full slate of ESRM courses

Initiative ID - ESRM #2-2011

Links to Finding 2 – We need to have all four ESRM courses taught each semester. This will mean 2 more classes a year and the associated uptick in staff required. If Geosciences get a new faculty member, that will free up the current Geosciences faculty to help cover the new ESRM courses.

Benefits - Having each ESRM course offered each semester should help students get the courses they need to earn a Proficiency Award or to transfer.

Request for Resources – Staffing and rooms for two new sections.

Funding Sources

Please check one or more of the following funding sources.

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	X
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

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Initiative ESRM tools/tech course

Initiative ID – ESRM #3-2011

Links to Finding 3 – Investigate the options for a lab oriented course to explore the tools and technologies for the Environmental Scientist and Resource Manager. This would both give students a potential lab transfer class in the sciences, but also ensure they are well rounded when they depart from Ventura College. Most of the equipment that would be used has already been acquired with the help of various grants over the last few years.

Benefits - Students will have access to tools that will help ensure they are prepared for the next step in their educational or professional journey.

Request for Resources – Time/support to write a grant and some supplies. Over time, in addition to what past grants have and future grants might supply, there may be an infrequent call for campus resources to help augment/update our technology.

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	minimal
Requires computer equipment funds (hardware and software))	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	X

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Initiative – Geosciences lead for ESRM

Initiative ID – ESRM #4-2011

Links to Finding 4 – Officially provide the oversight structure for ESRM that already exists in the Geosciences.

Benefits – More coherent leadership, chain of collaboration, and ability to clearly identify who, where, what will be needed for long term program health.

Request for Resources – The resources for Geosciences in general will hopefully be augmented in response to request in the Geography/GIS and Geology program review documents. So more support for managing ESRM will be in the form of more release time and faculty in Geosciences in general. See the other program initiatives for details.

Funding Sources

No new resources are required (use existing resources)	X (assumes Geosciences augmentation)
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

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6A: Initiatives Priority Spreadsheet

The following blank tables represent Excel spreadsheets and will be substituted with a copy of the completed Excel spreadsheets.

Personnel –Faculty Requests

31-34

Other	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	General Fund	Other
1												
2												
3												
4												
5												

Personnel – Other Requests

Personnel - Other	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	New General Funds	Other
1												
2												
3												
4												
5												

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Computer Equipment and Software

Equipment - Computer Related	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Technology Fund	Other
1												
2												
3												
4												
5												

Other Equipment Requests

Equipment	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Equipment Fund	Other
1												
2												
3												
4												
5												

Facilities Requests

Facilities	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Facilities Fund	Other
1												
2												
3												
4												
5												

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Other Resource Requests

Other Resources	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	General Fund	Other
1												
2												
3												
4												
5												

6B: Program Level Initiative Prioritization

All initiatives will first be prioritized by the program staff. If the initiative can be completed by the program staff and requires no new resources, then the initiative should be given a priority 0 (multiple priority 0 initiatives are allowed). All other initiatives should be given a priority number starting with 1 (only one 1, one 2, etc.).

6C: Division Level Initiative Prioritization

The program initiatives within a division will be consolidated into division spreadsheets. The dean may include additional division-wide initiatives. All initiatives (excluding the '0' program priorities) will then be prioritized using the following priority levels:

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).

H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

6D: Committee Level Initiative Prioritization

The division's spreadsheets will be prioritized by the appropriate college-wide committees (staffing, technology, equipment, facilities) using the following priority levels.

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).

H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

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6E: College Level Initiative Prioritization

Dean's will present the consolidated prioritized initiatives to the College Planning Council. The College Planning Council will then prioritize the initiatives using the following priority levels.

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).

H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

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7A: Appeals

After the program review process is complete, your program has the right to appeal the ranking of initiatives.

If you choose to appeal, please complete the form that explains and supports your position. The appeal will be handled at the next higher level of the program review process.

7B: Process Assessment

In this first year of program review using the new format, programs will be establishing performance indicators (goals) for analysis next year. Program review will take place annually, but until programs have been through an entire annual cycle, they cannot completely assess the process. However, your input is very important to us as we strive to improve, and your initial comments on this new process are encouraged.