

This is the review your department or program submitted in Spring 2008. For Questions #3 and #4 on this form, please provide a progress or status report on the plans you identified last year. For each item, type your progress report in the right column titled, Progress-2008-09. Also, please list the faculty and staff who participate in this progress report. Forward (1) a hard copy to Instructional Services for review by IPC and (2) an electronic copy to jdecker@palomar.edu no later than 3/2/2009

Palomar College – Institutional Review and Planning Instructional Programs

Purpose of Institutional Review and Planning:

The institution assesses progress toward achieving stated goals and makes decisions regarding the improvement of institutional effectiveness in an on-going and systematic cycle of evaluation, integrated planning, resource allocation, implementation, and re-evaluation. Evaluation is based on analyses of both quantitative and qualitative data (ACCJC/WASC, Standard I, B.3.)

Discipline: Earth Science

Instructional Discipline Reviewed

2007-08

1. 3-year trend of quantitative data

	Fall 2004	Fall 2005	Fall 2006	Definitions
Enrollment at Census	-	65	70	Self Explanatory
Census Enrollment Load %	-	90.28%	97.22%	Enrollment at Census Divided By Sum of Caps (aka "Seats")
WSCH	-	203	218	Weekly Student Contact Hours
FTEs	-	6.76	7.27	One Full-Time Equivalent Student = 30 WSCH
Total FTEF	-	0.40	0.40	Total Full-Time Equivalent Faculty
WSCH/FTEF	-	507	546	WSCH Generated per Full-Time Equivalent Faculty Member
Full-time FTEF	-	0.40	0.40	FTEF from Contract Faculty
Hourly FTEF	-	-	-	FTEF from Hourly Faculty
Overload FTEF	-	-	-	FTEF from Contract Faculty Overload
Part-Time FTEF	-	-	-	Hourly FTEF + Overload FTEF
Part-Time FTEF %	-	-	-	Percent of Total FTEF Taught By Part-Time Faculty
Retention Rate	-	89.83%	85.25%	Non-W Grades (A,B,C,CR,D,F,FW,NC) Divided By A,B,C,CR,D,F,FW,NC,W Grades
Success Rate	-	45.76%	59.02%	A,B,C,CR Grades Divided By A,B,C,CR,D,F,FW,NC,W Grades
Degrees Awarded	-	-	-	Total number of Degrees awarded for the Full Academic Year
Certificates Awarded:	-	-	-	Total number of Certificates awarded for the Full Academic Year
- Under 18 Units	-	-	-	Total number of Certificates awarded for the Full Academic Year
- 18 or More Units	-	-	-	Total number of Certificates awarded for the Full Academic Year

2. Reflect upon and analyze the above 3-year trend data. Briefly discuss overall observations and any areas of concern or noteworthy trends.

The Earth Science discipline is a small part of the ESAS department, but is growing vigorously. Fall 2005 was the first offering of the newly restructured ES100 course; this course was redesigned to meet criteria for transfer into the CSUSM Liberal Studies program. We also offered one section of the on-line ES105: Climate Change. This set of offerings continued in Fall 2006. Based on high Load %, we increased the number of sections to 3 per semester. The WSCH/FTEF and Retention Rates are very strong. The Success Rate in Fall

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2005 and Fall 2006 is poor. Data from the Institutional Research and Planning show that this is due primarily to the on-line ES105 course; for that and other reasons we have discontinued offering the on-line course. Preliminary data for Fall 2007 indicates the success rate is in line with overall college figures.

3. Reflecting on the 3-year trend data, describe/discuss discipline planning related to the following:

PLAN – 2007-08	Progress – 2008-09
<p>a. Curriculum, programs, certificates and degrees (consider changes due to CSU/UC transfer language updates, articulation, workforce and labor market projections, certificate or degree completions, etc.)</p> <ul style="list-style-type: none"> • The ES100 course is a requirement for transfer into the Liberal Studies major at CSUSM. Class surveys show that 40% of our enrollment is made up of students planning to transfer into that program. We will continue to help meet the needs of those students. • We have added a 195 Regional Field Studies to the Earth Science discipline. This course is co-listed with field courses in other disciplines where appropriate to add flexibility to student preferences and visibility to other discipline courses. • We have added ES115—Natural Disasters; this course is co-listed with GEOG115. • We are planning to add a 197 Topics course. • We are considering the development of an ES100 lab. Although it is not required for the Liberal Studies program, it would fulfill a need for other students at Palomar. 	<ul style="list-style-type: none"> • The ES100 course continues to be a requirement for the Liberal Studies program at CSUSM. We continue to have a strong representation of students who are either currently enrolled or plan to transfer into that program. • The ES195 Regional Field Studies course has been offered as a co-listed class with other ESAS field course offerings, including GEOG195 and OCN195. Although the ability to market field courses in a variety of disciplines has been positive, recent increases in fuel costs and requested cuts in sections resulted in fewer offerings in 2007-2008 and 2008-2009. • The ability to co-list ES115 and GEOG115 has resulted in strong enrollments in this course; the course has been full with a wait list each time it has been offered. • Curriculum for a 197 Topics course will be submitted during the Fall 2009 curriculum process. • Faculty discussed and researched materials for an ES100 lab course. The value of such a lab to students is considered high in that it will promote student learning of topics discussed in the lecture course. Curriculum for this course will be submitted during the Fall 2009 curriculum process. The goal will be to offer the course in Fall 2010 pending availability of staff and adequate funding for materials.
<p>b. Class scheduling (consider enrollment trends, growth, course rotation, comprehensiveness, etc.)</p> <p>The ES discipline continues to add sections of ES100; we are currently offering 6 sections per year, which is up from 2 sections per year in Fall 2006. Seeing continued strong enrollments, we plan to add an addition section per semester in 2008-2009. We are also offering a section in Summer 2008. A course offering at PCEC is recognized as a potential growth area, however we would need to increase our supplies to do so.</p>	<p>The ES discipline continues to have strong enrollments. Sections are generally full with census load % above 90%. We offered 6 sections in 2007-2008 and 7 sections in 2008-2009. Due to budget cuts additional sections were not added as planned; also, we dropped the Friday section as it had the weakest enrollment. We offered a section in Summer 2008; however, it was withdrawn in response to requests for section cuts. Addition of sections in summer and at the Escondido Center remains a potential growth area; however, any offerings at the Escondido Center will require the purchase of supplies.</p>

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4. Discuss/identify the resources necessary to successfully implement the planning described:

PLAN – 2007-08	Progress – 2008-09
<p>a. Equipment/Technology – block grant funds, VTEA, other resources, etc.</p> <p>The expansion of the ES100 offerings has generated the need for an additional classroom set of minerals and rocks. Existing sets are used by other disciplines; scheduling conflicts with these classes pose difficulties. The additional set will be required to offer a section at PCEC. The estimated cost is \$1000 per set.</p>	<p>We have not had funding to purchase additional classroom sets of minerals and rocks. The purchase of these sets, along with other materials, will be critical to offering an ES100 Lab.</p>
<p>b. Budget – budget development process, one-time funds, grants, etc.</p> <p>As a new discipline, ES has had very little money allocated for supplies, printing and travel. Therefore, most costs have been funded through budgets from other disciplines within the ESAS department. More funds need to be allocated to support the increasing number of students enrolled in ES100. Part of the decision on whether or not to develop a lab course will be based on having sufficient funds for equipment.</p>	<p>No progress has been made in this area; the needs remain the same.</p>
<p>c. Facilities – schedule maintenance needs, additional classrooms/labs due to growth, remodeling, etc.</p> <p>Overall, our NS building currently provides adequate facilities for our classes. Noise levels from the HVAC system make the learning environment difficult; this issue is being addressed at the division level. The addition of an ES100 lab course would no doubt include computer-based activities. There are no computer facilities available at this time.</p>	<p>In Fall 2008, the Earth, Space, and Aviation Sciences Department received a total of 30 refurbished laptop computers from Palomar College Information Systems (IS). Access to computers that can adequately run Google Earth or related software will be important to the development of the ES100 lab.</p>
<p>d. Faculty position(s) – faculty priority process and projected full-time needs for 1 – 3 years</p> <p>The fact that the ES100 course is designed to fulfill specific requirements at CSUSM mandates that program integrity be maintained. Therefore, all ES100 classes are currently being taught by full-time faculty. These faculties have decreased their load in other discipline areas (oceanography) to develop the ES program. If growth in this discipline continues, a full-time faculty member will be needed for the ES program.</p>	<p>The continued reliance on full-time instructors to teach ES100 courses has an impact on other areas, especially oceanography and geology. The potential offering of an ES100 Lab will be an additional impact to the full-time faculties load. An addition, Patty Deen will be on sabbatical leave in 2009-2010. Qualified adjuncts will help to maintain offerings, however the current pool of qualified adjuncts is limited for ES100 due to the wide range of expertise needed to teach the course.</p>

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<p>e. Staff position(s) – changes in instructional or support needs due to program growth, new technology, etc.</p> <p>There are no additional staff requirements for this discipline.</p>	<p>The hiring of our instructional assistant in Fall 2008 has been very helpful in supporting faculty and students.</p>
<p>f. Other</p>	

5. Discuss one discipline goal linked to Palomar’s Strategic Plan 2009 and how it will support the success of students.

One discipline goal which is linked to Palomar’s Strategic Plan 2009 is to meet the needs of students transferring into the CSUSM Liberal Studies program. Students who choose this program have specific goals to enter the teaching profession, generally in grades K-8. In 2001, the California Commission on Teacher Credentialing adopted new standards for undergraduate preparation of elementary school teachers. As a result, these students will be expected to pass State exams with content in the Earth Sciences, and will actually teach concepts based on the California content standards for Earth Science. In addition to the ES100 course, offering field studies courses provides opportunities for these students to develop their knowledge and experience base which they can take with them into their future classrooms. The addition of a laboratory course would further this goal.

6. Student Learning Outcome progress:

a. Describe a learning outcome at the course or program level and the assessment used to measure student learning of that outcome.

New CA teacher credentialing standards state that “candidates” communicate the steps and results of a scientific investigation in both verbal and written formats. The assessment used to measure this is one section of a poster project where students are required to present data and communicate the scientific rationale, procedures, and results of a scientific investigation related to their poster topic. During the poster session, students have the opportunity to verbally explain these results.

b. Discuss a learning outcome that is observable yet difficult to measure.

One learning outcome is that students be able to make connections to everyday life and to other disciplines so that they will better be able to teach others. It has been observed during class discussions and poster sessions that students do make connections outside the classroom, however these connections are difficult to measure due to the vast scope of possibilities.

7. Describe a discipline accomplishment that you want to share with the college community.

The Earth Science discipline is the fastest growing area within the ESAS.

8. Are there other resources (including data) that you need to complete your discipline review and planning?

Other data that would be helpful in evaluating the ES discipline would be the transfer rate and success rates of students who go into the Liberal Studies program at CSUSM or similar programs at other colleges. Information related to pass rates on the teaching exams with Earth Science content would also be helpful.

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9. For programs with an external accreditation, indicate the date of the last accreditation visit and discuss recommendations and progress made on the recommendations.

NA

10. Other comments, recommendations:

Please identify faculty and staff who participated in the development of the reviewer's planning:

Patricia Deen

Doug Key

Lisa Yon

Department Chair/Designee Discipline Review and Signature

Date

Division Dean Review and Signature

Date