

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.)

Department: Chemistry

Instructional Discipline Reviewed

2007-08

1. 3-year trend of quantitative data

	Fall 2004	Fall 2005	Fall 2006	Definitions
Enrollment at Census	1,393	1,386	1,379	<i>Self Explanatory</i>
Census Enrollment Load %	88.49%	90.93%	89.77%	Enrollment at Census Divided By Sum of Caps (aka "Seats")
WSCH	5,178	5,159	5,084	Weekly Student Contact Hours
FTEs	172.58	171.96	169.46	One Full-Time Equivalent Student = 30 WSCH
Total FTEF	11.07	10.67	10.67	Total Full-Time Equivalent Faculty
WSCH/FTEF	468	484	477	WSCH Generated per Full-Time Equivalent Faculty Member
Full-time FTEF	5.00	4.60	4.60	FTEF from Contract Faculty
Hourly FTEF	5.27	5.07	4.87	FTEF from Hourly Faculty
Overload FTEF	0.80	1.00	1.20	FTEF from Contract Faculty Overload
Part-Time FTEF	6.07	6.07	6.07	Hourly FTEF + Overload FTEF
Part-Time FTEF %	54.82%	56.88%	56.88%	Percent of Total FTEF Taught By Part-Time Faculty
Retention Rate	88.88%	89.10%	90.14%	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	63.85%	64.51%	63.31%	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 3-year trend data shows a relative stability in all areas. I believe that this is a function of adding the correct amount of course offerings only when the demand has been present.

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> <p><i>We will be offering Chemistry 104 for the first time beginning in Fall 2008. This offering will address an alternative course selection by the nursing student wishing to transfer to the California State University.</i></p>	<p><i>Our offering of Chemistry 104 has taken place and has been successful. The enrollment for this class is robust. This class fulfills CSU nursing student requirements and has allowed smooth transfer to the CSU for the nursing student.</i></p>
<p>b. Class scheduling (consider enrollment trends, growth, course rotation, comprehensiveness, etc.)</p> <p><i>We have streamlined our laboratory offerings to maximize our room utilization while not compromising course/time availability to our students.</i></p>	<p><i>We have had to cut our offering for Chemistry 210 (Analytical Chemistry) for the Fall of 2008 and the Fall of 2009 due to low enrollment and budget shortfalls. We plan to offer the course in Fall of 2010 with announcements/advertisements performed in advance.</i></p>

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><i>Through the passage of time, our equipment ages and needs to be replaced. Some are small equipment while others are major chemical instruments. Block grants and other sources of revenue are always required to maintain all of our course offerings as well as the integrity of our courses by allowing us to maintain all of this hardware.</i></p> <p><i>For example, our gas chromatograph used in organic chemistry is deteriorating and needs to be replaced. In addition, the UV/Vis spectrophotometer that we have is in a similar state. Also, some existing instrumentation needs to be operated with lap top computers. The only lap top that we have in the Department is >10 years old and incapable of instrument operation. We estimate a cost of \$50,000 for the</i></p>	<p><i>We have been successful in replacing the gas chromatograph used in organic chemistry with a new instrument.</i></p> <p><i>We now need to immediately, replace two aging Abbe refractometers (60 years old), with two new instruments. The cost for this replacement will total approximately, \$10,000.</i></p> <p><i>In the future (2-4 years), we will need a hydrogenation bomb for the organic chemistry lab courses.</i></p>

<p><i>above-mentioned items.</i></p>	
<p>b. Budget – budget development process, one-time funds, grants, etc.</p> <p><i>Ongoing chemical costs contain an inflationary factor. Our budgets must reflect this fact in order for our purchasing power to remain the same. Also, we incur ~\$500-\$1000 of chemical glass breakage each and every year. Our budget needs to reflect these costs as well as the inflation factor.</i></p>	<p><i>We continue to have glass breakage and increased inflationary cost increases. Due to budget cuts; however, we are falling behind in replacing/keeping up with these needs.</i></p>
<p>c. Facilities – schedule maintenance needs, additional classrooms/labs due to growth, remodeling, etc.</p> <p><i>In moving to the new science building, we were not granted any additional classroom/lab space. As such, we can only grow to the extent that we have student locker space and lab timings. Growth will be accommodated in the short run through casework modifications adding student drawers (probably complete this summer). This should increase each of our lab capacities by 1 section. We need; however, an additional lab in order to address future growth concerns.</i></p>	<p><i>Growth was a desire when we moved into the new building; however, since that time, all budgets have been cut and growth has not been an option/priority.</i></p>
<p>d. Faculty position(s) – faculty priority process and projected full-time needs for 1 – 3 years</p> <p><i>At least, one full-time position will be required within 3 years.</i></p>	
<p>e. Staff position(s) – changes in instructional or support needs due to program growth, new technology, etc.</p> <p><i>As we are allowed to hire student help, our instructional support staffing should be adequate for the foreseeable future.</i></p>	<p>We are still able to afford the needed student help to help assist the Stockroom with all lab classes.</p>
<p>f. Other</p> <p><i>Maintenance contracts for our existing major instrumentation must be maintained. Discussions with the instrument vendors have revealed that future cost increases will take place due to inflation.</i></p>	<p><i>Even though budget cuts have taken place, the College and Dean have made it possible for us to maintain our existing maintenance contracts for our existing major instrumentation.</i></p>

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

The continued, periodic offering of Analytical Chemistry in order to increase completion of Chemistry A.A. as well as aid in the transfer to the university.

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.

At the end of the second semester Organic Chemistry (CHEM 221), a national comprehensive final exam from the American Chemical Society is administered, and our students are ranked with other students throughout the nation.

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

Upon transfer to the university, our students appear to perform quite well within the chemical discipline. They appear to grasp the information which we have taught to a much better degree than their university counterparts.

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

Our Organic Chemistry (220/221) students continue to score in the 90+ percentiles, nationally, on the American Chemical Society's one-year, cumulative organic chemistry exam.

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

No.

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

10. Other comments, recommendations:

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

David A. Boyajian _____

Tsung Lee _____

Department Chair/Designee Discipline Review and Signature

Date

Division Dean Review and Signature

Date

* By no later than 3/14/08, forward a hard copy to Instructional Services for review by IPC.

* Also, by no later than 3/14/08, forward an electronic copy to Institutional Research and Planning.