

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: Botany

Instructional Discipline Reviewed

2007-08

1. 3-year trend of quantitative data

| | Fall 2004 | Fall 2005 | Fall 2006 | Definitions |
|--------------------------|-----------|-----------|-----------|--|
| Enrollment at Census | 159 | 147 | 87 | <i>Self Explanatory</i> |
| Census Enrollment Load % | 108.90% | 91.88% | 90.63% | Enrollment at Census Divided By Sum of Caps (aka "Seats") |
| WSCH | 477 | 441 | 261 | Weekly Student Contact Hours |
| FTEs | 15.90 | 14.70 | 8.70 | One Full-Time Equivalent Student = 30 WSCH |
| Total FTEF | 0.80 | 0.80 | 0.40 | Total Full-Time Equivalent Faculty |
| WSCH/FTEF | 596 | 551 | 653 | WSCH Generated per Full-Time Equivalent Faculty Member |
| Full-time FTEF | - | - | - | FTEF from Contract Faculty |
| Hourly FTEF | 0.80 | 0.80 | 0.40 | FTEF from Hourly Faculty |
| Overload FTEF | - | - | - | FTEF from Contract Faculty Overload |
| Part-Time FTEF | 0.80 | 0.80 | 0.40 | Hourly FTEF + Overload FTEF |
| Part-Time FTEF % | 100.00% | 100.00% | 100.00% | Percent of Total FTEF Taught By Part-Time Faculty |
| Retention Rate | 87.27% | 93.52% | 94.23% | 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 | 65.45% | 64.81% | 57.69% | 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 Botany discipline within the Life Sciences Department has always served a small, but important group of students. Many of these students have plans to transfer to four year institutions and make their careers in the biological sciences.

We have no full-time instructor teaching this discipline but instead have long term adjuncts that have been with us for years. Enrollments have been high and we could offer either one or two sections per term and maintain census enrollment load percentages above 90%.

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>This discipline provides both general education and transfer students with undergraduate science course – laboratory credit. It directly transfers to 4 year institutions for students within the biological sciences.</p> | |
| <p>b. Class scheduling (consider enrollment trends, growth, course rotation, comprehensiveness, etc.)</p> <p>We should continue to schedule either one or two sections each semester to meet student needs as they progress through the department.</p> <p>Without a botany course available each term some students could not complete their transfer requirements in a timely fashion.</p> <p>It would be a benefit to provide a second course in botany to be offered once each year, possibly in the spring terms.</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>The new greenhouse as part of the Natural Sciences building is a considerable asset to this discipline. However, there are several issues that need to be addressed and several solutions are in process this Spring term 2008.</p> <p>The greenhouse has a strong southern exposure which is the cause of the major concerns. Installation of sun blocking screens that limit and control solar incidence are required. Proper ventilation and thermoregulation using opening windows and powered fans is necessary. Screens are required on all openings to prevent unwanted pests invading this space.</p> | |
| <p>b. Budget – budget development process, one-time funds, grants, etc.</p> <p>Funds are not available within the department budgets to address any major design and functional issues. Small palliative measures can be addressed within our budget, but costly long term solutions need to be funded externally.</p> | |
| <p>c. Facilities – schedule maintenance needs, additional classrooms/labs due to growth, remodeling, etc.</p> <p>Greenhouse sink drains need to be put on scheduled maintenance. The traps need to be emptied regularly to prevent build up of plant material and other detritus. These sinks are heavily used by students during lab projects and will back up and overflow without regular maintenance. This task cannot be the domain of our laboratory technicians.</p> | |
| <p>d. Faculty position(s) – faculty priority process and projected full-time needs for 1 – 3 years</p> <p>We have other faculty members within the department with botany expertise should the need arise to offer more classes. I do not see this discipline growing in the near future enough to justify a faculty position.</p> | |
| <p>e. Staff position(s) – changes in instructional or support needs due to program growth, new technology, etc.</p> <p>Currently, the greenhouse is primarily maintained by our adjunct instructors. There is little support staff time used as our staff is very busy in other areas of the department.</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 that directly supports student success pertains to the biology and/or botany transfer student. This course prepares them with background prerequisite knowledge and credit that fully transfers with them as they move through their educational program.

A botany course, with a laboratory component is in the core body of knowledge for most biological science curricula.

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.

A learning outcome for Botany 100 is the understanding of and the ability to perform the typical 'scientific process of inquiry'. During the laboratory portion this course students perform plant growth experiments. They are required to design, implement and report their findings to the class.

Assessments occur with their experimental design plans, their literature search, data collection, report writing and class poster presentation.

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

Safe laboratory skills while using standard laboratory equipment such as spectrophotometers, microscopes, solutions, fresh lab specimens and dried herbarium specimens.

Success is indicated when equipment is kept in good working order, microscope slides do not need frequent replacement, lab specimens are kept in good order and students are not injured during class.

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

Palomar College Life Sciences Department, due largely to the efforts of our emeritus colleague Wayne Armstrong, continues to be recognized within the community of biology and botany professionals.

Wayne continues to maintain and expand our extensive herbarium collection and has recently identified and named a new botanical species.

These herbarium specimens are available to our students and other professionals of interest.

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

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:

George Zabka

Chris Hall

Ralph Ferges

Steve King

Ralph Ferges
Department Chair/Designee Discipline Review and Signature Date

Division Dean Review and Signature Date

* By no later than 2/14/08, forward a hard copy to Instructional Services for review by IPC.

* Also, by no later than 2/14/08, forward an electronic copy to Institutional Research and Planning.