Assessment Plan

Yuba Community College District

YC - Biology & Ecology Program Recommendations

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Program Description: The Biology program offers courses that meet the needs of students who have a variety of educational objectives. There is a series of general education courses for non-majors (Biology 10, 10L , 11, 25, Ecology 10, 11 and 12). All of these courses provide transfer credit to UC and/or CSU campuses. The program offers prerequisite classes for students entering programs in the health care industry (Biology 4, 5, 6 and 15). Some or all of these are prerequisites for students planning to apply to the Radiation Technology, Veterinary Technology, and Nursing Programs. Finally, the program offers a series of courses that fulfill the lower division requirements for biology majors intending to transfer to four-year institutions (Biology 1, 2 and 3).

Biology department classes are taught by six full time professors (5 at the Marysville Campus and 1 at the Lake Campus), plus a variable number of adjunct faculty, depending on need and availability.

There is one full-time instructional assistant at Marysville, who prepares laboratory materials and handles clean-up for all classes except microbiology. The instructional assistant is also responsible for: ordering, inventory and maintenance of supplies and equipment; care of lab animals; supervision of student help; setup and cleanup of all laboratories; and chemical and lab safety issues. District funds have been available for many years to hire student help for microbiology and anatomy preparation, and for student workers to help with general lab prep and cleaning. Recently the amount of money for student help has decreased, leaving additional work for the one instructional assistant. There is no laboratory assistance at the Clear Lake campus.

Year of Review: 2010-2011
Type of Review: Annual Update
Executive Summary: Program Overview

The current status of the program:
+WSCH/FTEF for 10-11 equals 873.84 at 8.53 FTEF (5.0 contract and 3.53 Extra-pay and noncontract)
+Retention for the department was 81.8%
+61.6% earned a passing grade

Explain significant changes in the program since the last program review or annual update.
? One of two full-time faculty requested was hired for this academic year. There is still a need to replace one fulltime faculty member.
? An SLO schedule was developed and course SLO?s data has begun to be collected Biology 1, 2, 4, 5, 6, 15 (Clearlake) 24, 35R all have completed SLO at least one evaluation of the SLO.
? Biology 24 ? Human Biology was scheduled this fall as an online course.
? Biology 15 split the extra-large lecture section of 140+ students into two large lecture sections. In the fall, due to classroom availability, one section enrolled 80 students and the second 65. In the spring, both sections were enrolled too 72.
? Biology 3 added an additional laboratory section and the department plans to do the same for Biology 2.
? The department is considering splitting Ecology 10 into two sections and placing one at the Sutter facility
? The department is considering offering Biology 10, 20R and 24 at the Sutter facility

Future Goals and Program Direction: The significant changes expected during the upcoming year.
+The department is continuing to evaluate extra-large lectures and is considering splitting Ecology 10 into two sections and placing one at the Sutter facility
+The department is considering offering Biology 10, 20R and/or 24 at the Sutter facility
+The department expects the college to hire and replace one biology faculty member.
+Current teaching assignments will be evaluated and restructured as new faculty members are hired for the department.

Recommendation: Improving Success and Retention Rates: Large Classes

The program faculty will evaluate large classes in terms of retention, pedagogy, student success, and impacts to the program such as FTES and FTEF.
Plan of Action to Implement Recommendation ? The faculty will work with the college researcher to determine a method to evaluate large classes

Year(s) Requested: 2010-2011
Recommendation Priority: 3. High Priority
Supporting Evidence: Current Status ? Biology 15, an extra-large lecture section of 140+ students, was spllit into two large lecture sections. In the fall, due to classroom availability, one section enrolled 80 students and the second 65. In the spring, both sections were enrolled too 72. An analysis of the fall retention and success rate show there is a statically significant difference between the single extra-large lecture class versus the 2 large lecture section. The data show for both retention and success students improved by 11%. Given this result, the department faculty will continue to evaluate the retention and success rates this spring. Additionally, the department will split Ecology 10 into two sections as well. Currently the lecture section is 100+ students and the department will seek to cap the class at 60 students or less.

Recommendation: Improve Success and Rention Rates: Chemistry Prerequisite

Assess the effectiveness of the pre-health course group
Plan of Action to Implement Recommendation ? 1. collect data on the significance of chemistry proficiency, reading proficiency and order of course work to determine if there is a need for pre-requisites or co-requisites. 2. Coordinate with the health technician and nursing programs on campus to determine weak areas and minimum expectations to beginning program students

Recommendation Priority: 2. Medium Priority
Supporting Evidence: A study researching the success and retention of taking Biology 4, 5 and 6 in a sequence or concurrently did not lead to any significant information. Biology department faculty will seek to coordinate a study to determine success and retention for students taking chemistry or other skills course prior to biology. The aim is to look for areas to improve student success and retention in all biology classes

Recommendation: Improve Sucess and Retention Rates: Biology Study Lab

Establish a study center with wet and dry work areas where students can go to makeup work, review lab materials, study in groups, get extra help, and work on individual or special projects.

Recommendation Priority: 1. Low Priority

Recommendation: Maintain or Increase Department Faculty and Staff

Hire one full time faculty members into the department to replace retirment in 2009. One full-time faculty was hired and started fall 2011. The second continues to be a need for the department.
Hire one full-time Science Lab Assistant (IA) for the Marysville campus.
Hire a part time student IA for the Clear Lake campus.

Recommendation Priority: 3. High Priority

Recommendation: Equipment

to seek funding to allow the department to maintain, replace, repair current equipment and to allow for the purchase of additional equipment. Plan of Action ? Request and enhancement to the budget to more accurately cover costs.
Persons Responsible ? Department Faculty/MESH Dean
Budget Impact ? Replacement of the equipment needed immediately is $100000.
Current Status ? Department faculty continue to seek funding to allow the department to maintain, replace, repair current equipment and to allow for the purchase of additional equipment. At both the Yuba and Clearlake campuses, the biopac equipment and software is approaching 10 years of age and needs to updated. Each station is $7500. The Microbiolgy preplab needs to replace 30 year old equipment $1000. The Biology 15 laboratory plans to offer more computer-based data acquisition laboratories and would need to purchase computers and equipment.

Recommendation: The program faculty will establish an Associates degree in Biology.

The program request to add an AS in Biology was approved by the Curriculum Committee on February 1, 2011. The paperwork to receive state approval was submitted to the Chancellors office January 2012

Recommendation Priority: 2. Medium Priority

Recommendation: Zoology Models

Order some useful animal models

Year(s) Requested: 2012-2013
Recommendation Priority: 2. Medium Priority

Recommendation: Facillities

Recommendation #1 ? Determine what improvements are needed in the Microbiology Prep area.
Plan of Action ? Work with Micro instructor and lab workers to determine what is needed in the prep area.
Persons Responsible ? Department Faculty/MESH Dean
Budget Impact ? The budge impact for this recommendation will include the cost for labor, cabinets and remodeling the microbiology prep room. The final cost will be dependent upon the bid process. But $10000 - $50000.
Current Status ? Department faculty await the new faculty member in Microbiology to make an assessment of the prep room area
Recommendation #2 ? Lake Campus needs an improved facility. Determine if there is Measure J money for these improvements, and if not, continue to request a better facility.
Plan of Action ? Ask what status of Lake Biology is for Measure J Funds
Persons Responsible ? Department Faculty
Budget Impact ? Not know at this time
Current Status ? The Biology Program at Clear Lake will move into a new facility within the next two years. It will include a wet lab fully dedicated to biology and a dry lab shared with the Early Childhood Education Program. Between the two labs, there will be a cadaver workroom and a separate prep area with a work station for a part-time student teaching assistant.
Recommendation #3 ? Improve the power sources in Room 817 to be more useful in the teaching environment.
Plan of Action ? Request a modification of power sources for the future.
Persons Responsible ? Department Faculty and MESH Dean
Budget Impact - The budge impact for this recommendation will include the cost for labor, evaluating the safety issues and potentially remodeling the floor in the anatomy classroom. The final cost will be dependent upon the bid process. But $100000 - $250000
Current Status ? This recommendation has not been addressed at the time of this annual update