

## 2006-2007 BIOLOGY Program Review Action Update

The 2005 Biology Program Review listed 14 Recommendations for Action. Following is a sequential listing with actions accomplished during the 2006-07 academic year.

**1. Consider revision of the Environmental Management major into an interdisciplinary environmental studies major.**

At present, no action has been taken on this item other than to ask Dr. Katherine Weaver, the Department's newest faculty member to generate recommendations to be considered. Because this was Dr. Weaver's initial year in the Department, it was decided that she would be given a year to get settled in before being asked to submit her proposal.

**2. Refocus green campus efforts by involving students in campus projects.**

One specific initiative implemented during the 2006-07 academic year was to involve SPLSS (Society for Physical and Life Science Scholars, the Natural Science Division's student organization) more directly into the planning and implementation of Earth Day. During Earth Day 2007, this effort resulted in four student booths and demonstrations that focused on environmental issues and concerns.

Also, discussions were conducted on student involvement by the Sustainable Campus Committee, which is seeking identification of new ways to involve students in campus sustainability issues, and this effort will be continued during the upcoming academic year.

**3. Consider expanding the research methods and biostatistics course into a 3-4 hour course to better cover biostatistics or possibly require students to take a statistics course offered by another department, such as Psychology.**

No changes have been yet implemented, but discussions are continuing.

**4. Consider the implementation of alternatives to the currently emphasized empirical senior project for meeting graduation requirements.**

The grant proposal model recommended by Dr. Wright of Pomona College, is currently being pursued by several students.

**5. Develop a better tracking strategy to monitor progress of senior projects and minimize the chances of students losing the momentum begun in the fall semester of their junior year.**

A new research model has been implemented by Drs. Broussard, Novak, Garcia, and Weaver who are all actively engaged in personal research projects. In this model, student research projects are each separate components of a larger research effort. Because several students are thus involved in similar efforts, there is greater opportunity for collaboration and mutual support. Since this modification we have seen a very significant increase in the number of project completions. For example, seven (!) of Dr. Broussard's students completed their projects this current Spring which is nearly double what any other faculty member has had finish in a single year.

**6. Consider adjustment of the teaching load expectations of faculty engaged in research and oversight of student research projects beyond a given number.**

The consensus among Departmental faculty is that the current teaching load of 24 hours is excessively heavy when added to the demands of conducting significant research. Currently, three of the junior faculty (Broussard, Novak, Weaver) have research projects funded by internal and external grants which demand very significant time investments. This important issue has been discussed with various administrators and we continue to press for implementation of policy changes to offer additional course-time release. To their credit, both Dean Yaffe and the Faculty Research Committee have been supportive in funding course releases for several faculty (Professors Broussard and Weaver).

**7. Rethink/revitalize the science seminar format and make appropriate adjustments.**

Kathleen Weaver was responsible for NASC 370 Science Seminar during the 2006-07 academic year, and implemented several changes and proposed additional changes that will be incorporated next year. Rather than meeting weekly, it was proposed that the seminar meet bi-weekly, with alternate weeks being devoted to lab meetings with Jr and Sr. students to discuss their research progress. For scheduled seminars, faculty are being asked to invite outside speakers on campus for an afternoon to meet with students to discuss their research informally as well as give a formal lecture.

**8. Apparently low MCAT scores in recent years suggest that there may be a problem with preparation of students for matriculation into medical school and this issue warrants further analysis.**

To date, no specific effort has been devoted to further investigate this concern.

**9. Consider revision of the biology curriculum, including identifying courses for possible deletion and courses for addition.**

Courses scheduled to be deleted from the BIOL curriculum include BIOL 443 Histology, and BIOL 372 Investigating Biofeedback Systems. Courses to be added to the curriculum include BIOL XXX Vertebrate Zoology. Recent course modifications include adding a lab component to BIOL 310 Cell Biology.

**10. Cultivate additional adjunct faculty to aid in the offering of additional CORE 340 courses.**

No additional faculty have been added, and with the pending GE changes, no specific plans are currently being considered.

**11. Revise syllabi to address perceived deficiencies as identified by Dr Wright of Pomona College.**

Faculty have received copies of Dr. Wright's recommendations and have worked to address listed deficiencies.

**12. Plan for pending retirements and staffing needs.**

Dr. Harvey Good retired in Spring 2006 and Dr. Kathleen Weaver, (PhD, U. Colorado) was hired as his replacement. In her first year she enjoyed high teaching evaluations from both students and faculty, had one paper selected for publication (with several others in preparation) and implemented research that is currently involving 4 students.

Dr. Neher indicates that he intends to continue in his role as Professor and Division head into the immediate future.

Pablo Weaver has excelled in his role as Laboratory manager, however is greatly overworked and the addition of a half-time or full-time position for helping in laboratory preparation and equipment maintenance is considered essential to be able to maintain persons in this position. Pablo also has demonstrated high quality teaching skills and in the future we hope to be able to assign him as an adjunct in the BIOL 101 courses, but only if we can secure additional help in the lab manager position.

**13. Explore ways to incorporate programming at the Montana Magpie Ranch campus into home campus programs.**

During 2007, Kathleen Weaver took five students to the Magpie Ranch facility for the field portion of BIOL 325, Field Biology, and spent 2 weeks conducting research on terrestrial snails. We hope to continue to bring student groups each summer to carry on such similar studies.

**14. Develop programs to recruit higher quality and better-prepared students.**

The Division contacted Ana Lisa Van Zell in Spring 2007 to plan for a Math and Science Open House for High School juniors to showcase Division programs. Because of the inadequate time for planning, it was decided to postpone the first open house until Spring 2008.

Also, during Summer 2007, Professors Jones, Burkhart and Weaver will be working with Don Pollock to produce a ULVTV program on environmental sustainability that will be available for use in student recruitment.

Submitted July 10, 2007, Jeffery Burkhart, Chair, Department of Biology

