

Department of Biology

Utah State University Department Teaching Excellence Award Pre-proposal, January 2009

Introduction – The Department of Biology

The Department of Biology is large and diverse, with 34 full-time tenured or tenure-track faculty, near 800 undergraduate students, and 66 graduate students. The department offers undergraduate Biology degrees in four emphasis areas and a degree in Public Health. The Department of Biology offers MS and Ph.D. degrees in Biology and Ecology. The Department is responsible for the highly successful pre-medical/pre-dental program and a large undergraduate research program. In addition to focusing teaching and advising efforts on Biology and Public Health majors, the Department has a significant service teaching and advising load.

Research in the Department is carried out by faculty, professional staff, graduate and undergraduate students in emphasis areas spanning microbiology to ecosystems. Department researchers are affiliated with the Utah Agricultural Experiment Station, the USU Ecology Center, the Center for Advanced Nutrition, and the USU Center for Integrated BioSystems. Faculty and research staff also collaborate with the USDA-ARS Bee Biology and Systematics Laboratory. The Department of Biology enjoys a high level of collegiality among its faculty, staff, and students which establishes an amiable and optimal environment for working and learning.

Established Commitment to Learning Excellence

Our commitment to learning excellence on the main campus and regional campuses throughout the State of Utah is demonstrated by the activities of dedicated faculty and staff over many decades. Our commitment is evident in the successes of our graduates, recognition of faculty and staff, dedication to development of additional scholarships and fellowships, esteemed associations with regional campus directors and faculty, continual and expanding alumni support, success of our faculty in promotion and tenure, success in obtaining external funding, and thriving research conducted in the Department.

Throughout 2007 we accelerated our efforts in assessment of our Department and have continued this effort throughout 2008. Our self-assessment expands to our regional campus and distance education efforts. The following activities provide a brief synopsis of our continuing commitment to learning excellence in the Department:

- Development of an Annual USU Campuses Cooperative Biology Teaching Workshop. The first workshop was held on 14 June 2008. The workshop was organized by staff and faculty from the main campus and Uintah Basin campus. The full-day workshop included hands on demonstrations of laboratory instruction, active learning workshops, and participant presentations for faculty, instructors, and temporary instructors from our regional campuses. The workshop resulted in a stronger collaboration of instructors at all campuses.
- Development of a teaching resource website to provide further resources for instructors to share ideas and material.

- Sponsoring faculty participation at the national conference on recruiting and mentoring Hispanic students and Drs. Gregory Podgorski and Lianna Etchberger's attendance at The National Academies Summer Institute on Undergraduate Education in Biology.
- Sponsoring a four-session workshop, "Entering Mentoring Workshop" in January 2008, based on the Wisconsin Program for Scientific Teaching taught by Drs. Etchberger and Podgorski.
- Assigning teaching mentors for our junior colleagues.
- Participation in the USU Teaching Academy.
- Providing a Biology Teaching Assistant Workshop each fall to new graduate and undergraduate TAs to introduce them to the teaching ethics and practices of the Department.
- Providing mentors for dozens of undergraduate teaching fellows, assistants, and aids in Biology courses to enhance the learning experience and supply of well-qualified science teachers.
- Participation in ADVANCE Seminars and Provost's Lecture Series seminars to enhance teaching skills.
- Participation in a ½ day workshop on teaching development presented by Drs. Etchberger and Podgorski at the annual faculty retreat in August 2008.
- Providing instructors for special topic courses in study abroad programs in Asia and South America in a partnership with the School of Business. This program is aimed at expanding opportunities for Business and Biology majors in cross-discipline training that will benefit both majors.
- Development of MOUs with the regional campuses that ensure a uniform commitment to Learning Excellence for all Biology courses at USU.
- Collaboration between the College of Science Curriculum Coordinator, Carlos Muñoz, and Department to evaluate course delivery and established mechanisms to better assess our effectiveness in both regional and main campus courses.
- Routinely meet with administrators from Provo College as well as administrators and our faculty from the regional campuses – Tooele, Brigham City, and Uintah Basin.
- Coordination between Carlos Muñoz, Nancy Kay Harrison, Administrative Assistant, and faculty at the main campus and regional campuses to ensure a similar course delivery of our courses across the State of Utah.
- Organizing a search committee that successfully filled two new lecturer positions in Biology at the Brigham City Campus.

Assessment of Learning Competency

We are confident in our abilities in many areas, especially teaching. It is our nature as scientists, to support our claims for excellence in teaching with data. The Department continually performs analyses and assessment of its undergraduate and graduate programs, curriculum, and faculty and staff development. The intent is to identify and effectively address needs and challenges. Information from analyses is used in formative assessment where recommendations are integrated quickly into programs. Priorities emerging from assessment include: continued improvement of the graduate program; increasing participation of underrepresented populations; enhanced mentoring of junior faculty; staff development; improving and increasing departmental development and advancement efforts; and developing a space allocation and acquisition strategy. In 2007 the Department of Biology augmented several assessment practices to better

understand our strengths and weaknesses. Throughout 2008, we have built on these practices and expanded our assessment efforts that include:

- Compiling and updating a 100+ page assessment document that provides detailed data assessing all areas in the Department. As we analyze this data, a clearer picture emerges of our strengths and existing challenges.
- Forming an advisory committee to develop a comprehensive strategic planning document for the department.
- Tasking the Curriculum Committee in developing a strategic planning document to address how current budget concerns may impact our curriculum.
- Organizing several student focus groups to meet with administrators and faculty to gather details on our student's perception of faculty, courses, research, majors, and advising.
- Weekly meetings between the Department Head and administrators and faculty in the Department to keep apprised of all aspects of the department's day-to-day operation.
- Monthly meetings between the Department Head and student representatives in the Department.
- Monthly meetings with the Department Head, Department Advisors, and support staff to discuss teaching and advising needs and accomplishments.
- Monthly meetings between the Department Head, Department Administrators, and Regional Campus representatives.
- Review of all course evaluations for main campus and regional campus courses.
- Annual review of Exit Surveys.
- Providing training for Faculty, Advisors, and Support on effectively gathering information from the USU Millennium Database Warehouse.
- Tracking acceptance rates of prehealth students to professional schools, enrollment, graduation, and placement of graduates and undergraduates in house.
- Collaborating with the College of Science Development Officer to maintain and increase our contacts with alumni.
- Continual contact with our Advisory Board Members to obtain their insight and assessment of our abilities and needs.
- Developing a prehealth advisory council to further expand resources for obtaining assessment of our teaching and advising efforts for our prehealth majors.
- Meeting with faculty and instructors on a regular basis, both in formal and informal settings, to assess the needs of our instructors in the Department.

In summary, the Department of Biology is dedicated to enhancing the learning experience of our students, investing in the development of instructors, providing necessary resources for instructors to create an effective and supportive classroom atmosphere, continuing assessment practices, development of student scholarships and fellowships, and providing research, intern, and teaching experiences for students.

We would welcome the opportunity to expand on our successes and our commitment to learning excellence to your committee by presenting further details and our outcome data in a proposal for the Utah State University Department Teaching Excellence Award.