

# **Administrative and Educational Support Report\***

**Department of Biology**

**Annual Action Plan  
Annual Assessment Report**

**June 2004 – May 2005**

\*Student Learning Outcomes for this department are available at  
<http://ie.panam.edu/CoSELearningOutcomes.htm>



**Annual Action Plan: June 1, 2004–May 31, 2005**

**Unit:** Department of Biology

**UTPA Mission:** The University of Texas-Pan American (UTPA) serves the higher education needs of a rapidly growing, international, multicultural population in the South Texas Region. The University preserves, transmits and creates knowledge to serve the cultural, civic, and economic advancement of the region and the state. The University provides students advanced instruction in academic programs offered through innovative delivery systems that lead to professional certification, and baccalaureate, master’s and doctoral degrees. Through teaching, research, creative activity and public service, UTPA prepares students for lifelong learning and leadership roles in the state, nation and world community.

**Division:** Academic Affairs      **Unit Head:** Dr. Mohammed Farooqui

**Unit Mission:** The Biology Department is committed to excellence in instruction, scholarly accomplishments, research, professional service, and student success. The Department seeks to provide a broad based education in Biology to provide students the opportunity to pursue the career best suited to their interests and abilities. The Department strives to meet the needs of students with various career goals that require a background in the biological sciences. The Department offers courses to fulfill the requirements of general education science courses, Bachelor of Science degree, and a minor in Biology that prepare students to enter the work force of continue their education in graduate and professional schools.

**Unit Goal:** Enhance Research Productivity and Improve Teaching Strategies.

**Link to UTPA Goal(s):**  
 1: Ensure undergraduate student access and success  
 2: Enhance graduate education and research

Unit Objective (Action Priority: #1 is highest)	Link to UTPA Objective	Expected Outcome for Unit Objective (AA-Measurable Objective)	Strategy(ies) to Achieve Expected Outcomes	Assessment Criteria, Evaluation Methods for Expected Outcome	New Resources Needed in FY05
Increased space (1)	2, 4, 5	Provide additional space/facilities that would improve the efficiency of utilization of space.	Utilize growth chambers for plant research projects; plan for future greenhouse space(s).  Finish shelled space for teaching/research purposes	Examine biology facilities for increased usage and efficiency and identify potential areas for enhancement.	Routine maintenance of growth chambers; greenhouse structure (campus space and funds require administrative approval)  Funding for ~2 finished shell spaces (administrative approval)

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			<p>Enhance/improve laboratories developed for educational purposes that utilize plant materials, and incorporate additional plant labs into introductory biology labs.</p> <p>Identify additional office space for future faculty hirings and programmatic offices within the department.</p>		<p>and fund allocation) in NSB</p> <p>Maintained plant growth chamber; soil preparation room; greenhouse facility</p> <p>Office space</p>
Faculty development (2)	2, 4	Increase the number of Professional Development Opportunities for Biology Faculty in AY2004 - 2005.	<p>Plan for the development of a Sabbatical Program guaranteed for all research-oriented tenure-track faculty.</p> <p>Increased departmental allocation for travel funds for travel to professional meetings.</p> <p>Host Texas Academy of Science meetings to increase national awareness of UTPA as a reputable institution of higher education.</p>	Examine biology department resources and policies for evidence of increased allowance for areas of professional development including sabbatical leave, travel funds, and related academic pursuits.	<p>Funds for hiring lecturers to replace faculty on sabbatical; travel funds</p> <p>Increased travel funds</p> <p>Funds</p>

**Unit Goal:**

Improve Chairman's Ability to Lead the Department.

**Link to UTPA Goal(s):**

3: Improve UTPA's organizational effectiveness

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Organizational efficiency (3)	7	Develop strategies so that the chair position does not require that the department chair sacrifice his/her research endeavors to lead the department.	Hire a staff person to take on the following chair responsibilities: advising, budget, degree plan audits, and the additional responsibility of tracking graduates.  Seek additional release time for chair.  Seek additional financial compensation for the chair position (to be suspended when the faculty member relinquishes the chair position).	Examine biology department and COSE resources and policies for evidence of increased chairperson support by measuring responsibility sharing, release time, and compensation.	Funding for staff position  Cost/compensation for the additional release time if approved.  \$5000/yr.

**Unit Goal:**

Develop an Institute of Biomedical Studies

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2: Enhance graduate education and research

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Program development (4)	6	Framework provided upon which to develop a proposal for a collaborative Ph.D. in Biomedical Life Sciences.	Central administration for the education initiatives (BS/MD programs and other enrichment activities) already in place and the Biomedical Research	Examine department policies and resources allocated for evidence that a framework for a collaborative Biomedical Life Sciences Ph.D. (or similar program) could	Funding for a staff person

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			<p>Center.</p> <p>Coordinate recruitment and administration of undergraduate educational opportunities in biomedical fields.</p> <p>Add collaborative educational programs.</p> <p>Increase numbers of students involved in undergraduate research activities.</p> <p>Seek interdisciplinary involvement in biomedical research, including collaboration with RAHC and other facilities.</p> <p>Identify a collaborating institution for the Ph. D. in Biomedical Life Sciences.</p>	<p>be supported and yield successful results.</p>	<p>Staff person</p> <p>Grant funding to support program students</p> <p>Staff person</p>



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Increased space (1)	2, 4, 5	Provide additional space/facilities that would improve the efficiency of utilization of space.	Examine biology facilities for increased usage and efficiency and identify potential areas for enhancement.	(1) All growth chambers in use for research and teaching. Enhancement of plant growth preparation space (~500 sq. ft.) into a newly utilized plant and soil preparation room. Tentative approval for	(1) Increased research productivity and utilization of growth chambers; evidence of administrative approval and fund allocation for greenhouse structure.

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				<p>greenhouse space for construction of next wing of science building (ca. AY2006 - 2007.</p> <p>(2) Two shelled spaces approved and funded for renovation. Herbarium and invertebrate zoology lab relocated in order to renovate the space for a Howard Hughes Medical Institute (HHMI) grant core facility.</p> <p>(3) Incorporation of two new botany related lab courses into biology curriculum: BIOL 4406/5406 Mycology and BIOL 4408/5408 Plant Pathology. Approval of graduate level plant related course: BIOL 6308 Plant-Microbe Interactions. All of these require enhanced efficiency of utilized plant laboratory space.</p> <p>(4) Approval, funding, and completion of renovation/ construction of two new office spaces for instructional faculty</p>	<p>(2) These renovations are planned to provide 1814 additional sq. ft. for research.</p> <p>(3) Enhancements in laboratory curricula and evidence of student success in plant science.</p> <p>(4) Additional office space (2 new spaces) available for Biology department faculty</p>

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				on the first floor of the science building.	
Faculty development (2)	2, 4	Increase the number of Professional Development Opportunities for Biology Faculty in AY2004 - 2005.	Examine biology department resources and policies for evidence of increased allowance for areas of professional development including sabbatical leave, travel funds, and related academic pursuits.	<p>(1) One Biology professor was a member of the Faculty Senate ad hoc committee to develop a faculty developmental leave (sabbatical) policy. The policy change was successful (see HOP 6.6.3), resulting in the opportunity for certain faculty members to participate in developmental leave.</p> <p>(2) Departmental funding was increased from AY 2003-2004 to AY 2004-2005 for faculty participation in professional meetings.</p> <p>(3) Texas Academy of Science Meeting was hosted at UTPA in March 2005 with over 300 science professionals from Texas in attendance. A member of the department was honored as a distinguished</p>	<p>(1) Increased research productivity; improved recruitment of new faculty (increased numbers of applicants for positions).</p> <p>(2) Increased faculty attendance at professional meetings; increased national awareness of UTPA as a reputable institution of higher education.</p> <p>(3) Improved recruitment of new faculty (increased number of applicants for positions).</p>

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				scientist by TAS.	

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Organizational efficiency (3)	7	Develop strategies so that the chair position does not require that the department chair sacrifice his/her research endeavors to lead the department.	Examine biology department and COSE resources and policies for evidence of increased chairperson support by measuring responsibility sharing, release time, and compensation.	<p>(1) A new staff person was hired during AY 2004-2005 to oversee research accounting and other fiscal issues in the department.</p> <p>(2) Additional release time was not allocated in 2004-2005 by the administration for chair duties.</p> <p>(3) Additional financial compensation has not yet been approved or allocated for individuals that hold the chair position.</p>	<p>(1) The new staff member will relieve the department chair of some fiscal, advising, and administrative duties.</p> <p>(2) Administration is considering release time changes for department chairs.</p> <p>(3) Administration is considering improved financial compensation for department chairs.</p>

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Program development (4)	6	Framework provided upon which to develop a proposal for a collaborative Ph.D. in Biomedical Life Sciences.	Examine department policies and resources allocated for evidence that a framework for a collaborative Biomedical Life Sciences Ph.D. (or similar program) could be supported and yield successful results.	<p>The following components of a framework have been created:</p> <p>(1) Central Administration for the Educational initiatives (BS/MD programs and other enrichment activities) and the Biomedical Research Center are already in place.</p> <p>(2) 60% acceptance rate of graduates into medical schools. AY 2004-2005: 62 accepted by medical schools, 6 by dental schools, and 2 by veterinary schools (including Texas A&amp;M).</p> <p>(3) Collaborative possibilities are under consideration with sister</p>	<p>(1) Administration is continuing to foster input in biomedical programs and the Regional Academic Health Center (RAHC).</p> <p>(2) Due to increased numbers of students applying to BS/MD programs because of consolidated recruitment efforts and due to increased numbers of students from UTPA who are accepted to medical and professional schools, recruitment efforts remain an important priority for the biology program.</p> <p>(3) Efforts are ongoing to foster collaborations and formal agreements.</p>

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				<p>universities in the UT system.</p> <p>(4) Increase in numbers of students enrolled in BIOL 4201 and 4202 Research Problems from AY 2003-2004 to AY 2004-2005.</p> <p>(5) RAHC is completed but not funded. Students are conducting research with chemistry on biomedical-related projects. The HHMI fellowship is supporting a diverse number of projects that include a large number of PIs from diverse disciplinary backgrounds.</p> <p>(6) An official agreement has not been signed between administrative entities.</p> <p>(7) Cell biologist with research emphasis on cancer and cell signaling successfully recruited and hired during AY 2004-2005. No biomedically-oriented</p>	<p>(4) Faculty have been placed on a rotating schedule each semester to oversee BIOL 4201 and 4202 and given release time (2 FTE) for this work.</p> <p>(5) An HHMI seminar series has been implemented to foster and encourage student involvement in interdisciplinary research.</p> <p>(6) Further efforts exist to foster collaborations and formal agreements.</p> <p>(7) Further positions have been identified (including endocrinology, developmental biology, and epidemiology) for which recruitment and</p>

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				faculty hired during AY 2003-2004.	hiring will take place for AY 2005-2006.

**Additional Resources Needed (if any) that were requested for FY06 during the budget cycle:**

- (1) Three reauthorized faculty positions in “mammalian endocrinology”, “developmental biology” and “systematic ecology”
- (2) Two new faculty positions in “epidemiology” and “landscape ecology”
- (3) One staff position: “Program Manager”
- (4) A 55% increase in assistantships
- (5) An 18% in student wage pool
- (6) A 3% increase in operating pool
- (7) Two faculty offices