

Administrative and Educational Support Report*

Department of Mathematics

**Annual Action Plan
Annual Assessment Report**

June 2006 – May 2007

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



Annual Action Plan: June 1, 2006–May 31, 2007

Unit: Department of Mathematics

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:** Lokenath Debnath

- Unit Mission:**
- To support the College of Science and Engineering mission stated by committing to excellence in instruction, student performance, research, scholarly accomplishment and professional service.
 - To provide students of mathematics an environment of academic freedom that will ensure the exchange of ideas, the dissemination of knowledge and the appreciation of Mathematics.
 - To inspire students with an appreciation of the impact of mathematics in a global economy, and with respect for the contributions made by previous generations.
 - To provide students analytical foundations empowering them to pursue chosen courses of study where they can apply mathematics meaningfully for the purpose of contributing to current and future societal needs.

UTPA Goal: Provide students with a quality educational experience that enables them to complete their educational goals in a timely fashion.

Academic Affairs Objective: Review and restructure all educational programs to ensure that students complete their educational goals in a timely fashion.

College/AVP Objective: Give students, and design programs with, more flexibility to meet core requirements, and reduce time to graduation.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Review and reevaluate required courses for all B.S. majors in the COSE.	Charge the departmental curriculum committee with reviewing BS requirements.	Programs requirements will be reduced to 120 hours.	By May 31, 2007 a proposal to reduce all BS mathematics programs to 120 hours will be	None

Annual Action Plan June 1, 2006–May 31, 2007

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
(1)			approved by the University Curriculum Committee.	

UTPA Goal: Provide students with a quality educational experience that enables them to complete their educational goals in a timely fashion.

Academic Affairs Objective: Assist students in defining their educational goals and support them in reaching those goals in a timely manner.

College/AVP Objective: Provide students with resources needed to succeed.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Provide students with resources needed to succeed. (2)	Work with the University Scholarship personnel to make the scholarship application process more user friendly.	Get scholarship applications available online for all the Mathematics scholarships.	By April, count the number of departmental scholarship applications available online. Verify that all applications are online by May 31, 2007.	None
	Make the scholarship opportunities more available to students taking Math Courses.	Bulletin up boards to advertise scholarships. Scholarship information on all the poster boards in the MAGC building.	A copy of the MAGC building manager records of scholarship posting will be presented to the dean of COS&E no later than May 31, 2007.	None
	Enhance academic advisement processes by coordinating with the Academic Advisement and Mentoring Center.	Participate in the identification of office space for the college's Professional advisors.	By May 31, 2007, sites for office space for the college's professional guidance counselors will be identified.	None

Annual Action Plan June 1, 2006–May 31, 2007

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07

UTPA Goal: Become an outstanding research institution, emphasizing collaborative partnerships and entrepreneurship.

Academic Affairs Objective: Foster intramural and extramural collaborative research partnerships.

College/AVP Objective: Increase research collaborations among departments and other colleges and universities.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Increase funded research collaborations among departments and other colleges and universities. (3)	Build on existing contacts by submitting collaborative proposals and hosting research symposiums so faculty can share research interests.	Increase the number of collaborative proposals submitted by Math faculty.	Increase by 10% the number of collaborative proposals submitted in AY 2007 compared to AY 2006.	None
	Invite faculty researchers to UTPA to give guest lectures on their research.	Increase participation of mathematicians in research symposia and department's colloquia.	Conduct an international conference in Fall 2006 and a Texas section of the MAA in Spring 2007.	\$2000 to support the symposium and Colloquia Committees in the Math Dept.

UTPA Goal: Become an outstanding research institution emphasizing collaborative partnerships and entrepreneurship.

Academic Affairs Objective: Establish a research environment that is student-learner centered.

College/AVP Objective: Hire strong research faculty who can teach.

Annual Action Plan June 1, 2006–May 31, 2007

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Hire strong research faculty who have a strong interest in teaching. (4)	Inform faculty being hired that form C's will be used every Fall and Spring semester to collect the number of professional presentations and publications and the number of undergraduate coauthors.	Numbers of presentations and publications and number of undergraduate coauthors for the Fall 2006 and Spring 2007 will be counted from form C's.	Form C reports filled out by faculty members with the count of undergraduate students giving formal presentations or writing research publications or making poster presentations. By May 31, a 10% increase in presentations, publications, and number of student coauthors will be recorded in form C's in comparison to AY 2005-2006.	COS&E funding (\$3000) for poster competitions.

UTPA Goal: Become an outstanding research institution emphasizing collaborative partnerships and entrepreneurship.

Academic Affairs Objective: Provide support for the improvement of the research infrastructure.

College/AVP Objective: Increase space and resources for research.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Increase space and resources for research. (5)	Assess space needs and communicate to administration; in particular, recover space in the MAGC building occupied by other units.	100% of COSE faculty requesting research space will be assigned appropriate space (as determined by the department chair and	By May 31, 2007, 100% of faculty requesting research space will have an assigned space.	None

Annual Action Plan June 1, 2006–May 31, 2007

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
		dean).		
	Maintain research equipment.	Increase the inventory of research instruments that are replaced or added in AY 2007 from those added in AY 2006 by increasing available HEAF and grant funding by 10%.	HEAF dollars or grant funds used to replace or expand the research instrument base will be higher by 10% in AY 2007 from that in AY 2006.	Continue to request equipment funds from HEAF.

UTPA Goal: Become an outstanding research institution emphasizing collaborative partnerships and entrepreneurship.

Academic Affairs Objective: Provide support for the improvement of the research infrastructure.

College/AVP Objective: Increase funding for research through endowments, grants, contracts, and gifts.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Increase funding for research through grants, contracts and gifts. (6)	Reward faculty for success in bringing research funds to UTPA.	Contribute to increase the amount of external funds awarded to the College of Science and Engineering	By May 31, 2007, there will be an increase of external funds received in AY 2007 by COSE of 10% over AY 2006.	Outstanding faculty awards at the University level. Reinstate merit funds for outstanding research and teaching.
Expand student research symposiums. (7)	Assist student organizations in mathematics and other COSE departments.	Have a Math Student Research Day.	Verify by May 31, 2007 that there was one Math student research day during AY 2007.	\$300 for organizing Math Student Research Days.

Annual Action Plan June 1, 2006–May 31, 2007

UTPA Goal: Enhance UTPA's engagement with the community to meet challenges and maximize opportunities.

Academic Affairs Objective: Promote engagement with existing organizations to address challenges and opportunities.

College/AVP Objective: Find niches in the community where COSE expertise can help.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Use faculty to speak at public meetings and service clubs. (8)	Contribute with the COSE effort to establish a baseline for COSE faculty providing community talks related to their discipline in Rotary and Lions Clubs or to other interest groups.	The number of lectures given by faculty in AY 2007 to community groups will be documented so as to establish a baseline through Annual Faculty Evaluation data.	By May 11, establish the baseline for presentations from the 2004-05 and 2005-06 Faculty Evaluation forms.	None

UTPA Goal: Enhance UTPA's engagement with the community to meet challenges and maximize opportunities.

Academic Affairs Objective: Promote engagement with existing organizations to address challenges and opportunities.

College/AVP Objective: Create partnerships with local businesses and organizations to serve needs of the community.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Develop advisory councils made up of individuals from the local and regional	Meet with the dean and designated faculty from Engineering and Computer	Have at least three meetings during AY 2007 and develop a mission	By May 31, 2007, verify that three meetings took place, that mission and	None

Annual Action Plan June 1, 2006–May 31, 2007

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
community similar to the ones in engineering and in computer science. (9)	Science and a group of Math Faculty and other stakeholders to discuss the formation of an advisory council for the Math Department.	statement and purpose statement, goals and objectives for advisory councils for both groups. Develop a list of mathematicians to be considered as council members.	purpose statements, goal and objectives were written, and that a list of possible advisory council members is formulated.	

UTPA Goal: Enhance UTPA's engagement with the community to meet challenges and maximize opportunities.

Academic Affairs Objective: Promote engagement with existing organizations to address challenges and opportunities.

College/AVP Objective: Continue to participate in and promote community events.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Contribute to enhance the HESTEC engagement with the community. (10)	Open both the Engineering and the Science Buildings to the public during HESTEC. Create TexPREP club with UTPA former TexPREP students and COSE faculty.	Organize TexPREP and Math Club exhibits in HESTEC.	Verify by May 31, 2007 that Math Faculty and students have participated organizing HESTEC activities in Fall 2006 and have a plan for Fall 2007.	None

UTPA Goal: Collaborate with P-12 schools to enlarge the pool of applicants who are personally prepared and academically qualified for higher education.

Annual Action Plan June 1, 2006–May 31, 2007

**Academic
Affairs
Objective:**

Establish expectations/standards that define students who are personally prepared and academically qualified for college.

**College/AVP
Objective:**

Promote and enhance educational/research opportunities for P-12 student, and establish standards for students entering COSE.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Promote and enhance educations and research opportunities for K-12 students. (11)	Contribute to the increase in the number of Math science camps offered by COSE units during summer.	Using AY 2006 as a baseline, ensure that more Math faculty participate in the math and science camps and other outreach programs.	Verify, by May 31, 2007 that more Math faculty participated in Math and Science camps scheduled for Summer 2007 and other outreach programs sponsored by COSE units.	Various funding sources such as grants or other agencies funding.
	Work with school districts to organize TexPREP students' visit to the Coastal Studies Lab.	Increase the number of participants and visitors to the UTPA Coastal Studies Lab by 10%.	Verify, by May 31, 2007, that an increase of 10% has been met in the number of visitors and participants touring the UTPA Coastal Studies Laboratory, as compared to AY 2006.	Funds requested by COSE.
Contribute to expand TexPREP and SciPREP. (12)	Work with the TexPREP director, the dean, and External Affairs to increase the funding for TexPrep and SciPrep programs.	Selected Math faculty will participate in efforts to obtain one additional source of funding for TexPrep and SciPrep programs.	By May 31, 2007, verify that Math faculty have contributed to at least one additional source of funding for TexPrep and SciPrep summer programs.	External support.

UTPA Goal:

Infuse Inter-American and global perspectives through the University community.

Annual Action Plan June 1, 2006–May 31, 2007

**Academic
Affairs
Objective:**

Increase and improve international activities on campus.

**College/AVP
Objective:**

Promote and enhance collaborations with universities and organizations with international emphasis.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Expand the ITESM-Guadalajara program in engineering. Increase the participation of Mexican mathematicians in the International Journal of Mathematics and Mathematical Science. (13)	COSE administrators will visit ITESM-G to build new relationships and to re-establish the former programs. Include mathematicians in the COSE visits to Mexico.	Increase the number of Math faculty participating in activities with Mexican universities and also increase the number of Mexican mathematicians publishing in the Math Department's international journals.	Verify, by May 11, 2007, that Math faculty participation in activities with Mexican mathematicians have increased 10% in AY 2006-2007 in comparison to AY2005-2006.	Travel funds for faculty to visit Mexican universities to set up the summer programs and funding to support the Math Department's journals.

**Annual Assessment Report is due on
June 15, 2007.**

It will be posted by June 30, 2007.