

# **Administrative and Educational Support Report**

**College of Science & Engineering**

**Annual Action Plan  
Annual Assessment Report**

**June 2006 – May 2007**



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

**Unit:** College of Science and Engineering (COSE)

**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. Edwin LeMaster

**Unit Mission:** The College of Science and Engineering supports the mission statement of The University of Texas – Pan American by committing to excellence in instruction, student performance, research, scholarly accomplishment, and professional service, and by promoting the expansion of national and international emphasis in all major areas of institutional endeavor. The College strives to provide its students and faculty an environment of academic freedom that will insure the exchange of ideas and the dissemination of knowledge. The College will provide a strong scientific and technical foundation for all students of the university. The College will continue to pursue a strong research program involving undergraduate and graduate students and faculty in all areas of science, mathematics, computer science, and engineering, and a strong teacher preparation program in science, mathematics, and technology.

**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.	Establish departmental curriculum committees in each department to review	Programs requirements will be reduced to 120 hours except engineering and	By August 31, 2007, All BS programs will be reduced to 120 hours or show accreditation or	None

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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)	BS requirements.	pre-medical programs.	other criteria to justify a greater requirement.	

**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.	Scholarship applications will be available online for at least 15 of the 23 scholarships available in the COSE.	Count the number of departmental scholarship applications available online and verify that 15 of the applications are online.	None
	Make the scholarship opportunities more available to students in COSE.	Install bulletin boards to advertise scholarships in each of the 4 buildings occupied by faculty in the COSE.	Inspect the 4 buildings to locate the scholarship bulletin boards and verify that boards are installed, by May 31, 2007.	\$600 to purchase and install 4 bulletin boards.
	Enhance academic advisement processes by coordinating with the Academic Advisement and Mentoring Center.	Identify office space for the college's professional advisors in our buildings close to where faculty offices are located.	By May 31, 2007, sites for office space for the college's professional guidance counselors will be identified.	None

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**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 host research symposiums so faculty can share research interests.	Increase the collaborative proposals submitted by COSE faculty.	The number of COSE collaborative proposals submitted will increase by 10% in AY 2007 compared to AY 2006.	None
	Invite faculty researchers to UTPA to give guest lectures on their research.	Increase the number of research symposiums. In 2005-06 there were 3 and we aspire to increase that to 5.	Research symposia hosted by COS&E departments will increase to 5 in AY 2007, as compared to 3 in AY 2006.	\$5000 for Science Symposium and \$1000 from IDC funds for other efforts.

**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.

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
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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 reports will be collected through Form C's after each semester that will count the numbers of professional presentations and publications.	An increase of 10% in the number of presentations and publications will be documented.	By May 31, a 10% increase in COSE presentations and publications will be noted by counting from Form C reports.	Continue to fund student poster competitions and research presentations with awards for winners. \$3,000

**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)	Asses space needs and communicate to administration.	100% of COSE faculty requesting research space will be assigned appropriate space (as determined by the department chair and dean).	By May 31, 2007, 100% of faculty requesting research space will have an assigned space.	\$600,000 in Renovation funds for Science Building and Center for Manufacturing.
	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 allocate equipment funds from HEAF.

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

**Academic Affairs Objective:** Establish a framework for external support of research and entrepreneurial activities.

**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.	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.
Expand student research symposiums. (7)	Assist student organizations in science and engineering and build on the Computer Science ACM chapter experience in Spring 2006.	Host two student research days in AY 2007 instead of only one.	Verify by May 31, 2007 that there were two student research days during AY 2007.	Funds for awards and lunch using IDC funds--\$1000.

**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.

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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)	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 COSE faculty in AY 2007 to community groups will be documented so as to establish a baseline through Annual Faculty Evaluation data.	By May 31, 2007, establish the base line 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 community similar to the ones in engineering and in computer science. (9)	Meet with collaborating faculty and other stakeholders to discuss formation of advisory councils for the Coastal Studies Laboratory and for the COSE Sciences.	Develop advisory councils for the Coastal Studies Lab and for the COSE.	By May 31, 2007, the mission and purpose statements, goals and objectives for each Council as well as a list of possible advisory council members will be submitted to the Dean.	Meeting meals \$800.

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**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, develop and promote public science education centers.

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
To reopen the UTPA Planetarium to community groups in AY 2007. (10)	Discuss with the UTPA Administration the appointment of a faculty member with released time to promote the Planetarium and to lead the effort to pursue funding to re-equip the planetarium.	Identify sufficient funding to purchase a new planetarium scope.	By May 31, 2007, have funding identified to purchase a new scope for the UTPA Planetarium.	\$150,000 + 25% faculty released time in Physics and Geology Department.

**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
Enhance the HESTEC engagement with the community. (11)	Open both the Engineering and the Science Buildings to the public during	Host Science Symposium and Community Day activities in the 2 buildings	Verify by May 31, 2007 that both the Engineering and Science buildings were	None

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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
	HESTEC.	during HESTEC Week.	used to host Science Symposium activities during HESTEC 2006.	

**UTPA Goal:**

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

**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 students, 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. (12)	Increase the number of science campus offered by COSE units during summer.	Using AY 2006 as a baseline, ensure that more summer science camps are scheduled to be hosted by COSE units in Summer 2007.	Verify, by May 31, 2007 that more camps are scheduled for Summer 2007 sponsored by COSE units.	Various funding sources such as grants or other agencies funding.
	Use the Coastal Studies Lab to host K-12 school groups to learn about the marine environmental research.	Increased the number of participants and visitors to the UTPA Coastal Studies Lab by 10%, as reported monthly by the CSL staff: Dr. Miguel Nevarez.	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.	Dr. Nevarez salary support for 75% of his support from UTPA.
Expand TexPREP and	Work with External Affairs	Obtain one additional	By may 31, 2007, identify	External support.

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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
SciPREP. (13)	to increase the funding for TexPrep and SciPrep programs.	source of funding for TexPrep and SciPrep programs.	at least one additional source of funding for TexPrep and SciPrep summer programs.	

**UTPA Goal:** Infuse Inter-American and global perspectives through the University community.

**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. (14)	COSE administrators will visit ITESM-G to build new relationships and to re-establish the former programs.	Increase the number of institutions partnering with UTPA in the ITESM-Guadalajara Program above the number in partners in AY 2006.	Verify, by May 31, 2007, that a commitment has been received by ITESM-Guadalajara Program partners so that an increase in participating institutions over AY 2006 is realized.	Travel funds for Dr. Gonzalez and other faculty to visit Mexican universities to set up the summer programs.

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

**It will be posted by June 30, 2007.**