Administrative and Educational Support Report*

Department of Computer Science

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 Computer Science**

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. Zhixiang Chen

Unit Mission:

The Department of Computer Science is an academic department in the School of Engineering and Computer Science at the University of Texas Pan-American. Currently, the School is an administrative unit within the College of Science and Engineering. The department offers four degrees: Bachelor's of Science in Computer Science (BSCS) as a broad-field major, Bachelor's of Science with a major in Computer Science (BS) with a required minor field, Master's of Science with a major in Computer Science (MS) and Master's of Science in Information Technology (MSIT). The department offers courses leading to teacher certification in computer information systems, service courses to fulfill University College / General Education requirements, and computer science courses required for degree programs in engineering, science and mathematics. The faculty conduct research in computer science, computer science education and interdisciplinary fields, and contribute their professional service to student advising, mentoring, professional organizations, university activities, industrial interactions and to the community through professional expertise.

The undergraduate curricula in computer science are based on Association for Computing Machinery and Institute of Electrical and Electronics Engineers Computer Society recommendations for curricula and reflect the goals of liberal arts education. The graduate curricula provide advanced and specialized study in the areas of computer science and information technology. The curricula in computer science provide the student with marketable expertise to enter computing and information technology fields, the skills and education required to adapt to the rapid change characteristic of the fields, and the foundation to pursue graduate study in computer science and information technology.

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

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. Establish a separate Learning and Teaching Excellence Center to improve instructional practices and promote student engagement in learning.
College/AVP Objective:	Give students and design programs with more flexibility to meet core requirements, and reduce time to graduation. Plan and develop new academic programs and centers of excellence.

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 establish specific steps to a multidisciplinary PhD program in Computational Science and Engineering in accordance with the University's vision. (1)	Arrange meetings among Z. Chen - Chair, Richard Fowler – Graduate Director & Director for CITeC, EE Chair and Graduate Director. Follow-Up meeting with Dr. LeMaster	A written agreement between the Chairs of the Computer Science Department and the Dean Dr. LeMaster expressing the expectations necessary for the multidisciplinary PhD program development by May 2007.	Agenda & minutes of meeting & Joint Agreement, by May 31, 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.
Academic Affairs Objective:	Establish expectations/standards that define students who are personally prepared and academically qualified for college. Collaborate with PK-12 institutions, STC and UTPA on curriculum alignment
College/AVP Objective:	Promote and enhance educational/research opportunities for K-12 students, and establish standards for students entering COS&E. Design a systematic outreach and recruitment plan to reach school districts in the Valley.

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
Maintain undergraduate & graduate enrollment that is	Enhance faculty collaboration between	Using 2005/2006 data as a baseline, the department	Enrollment in undergraduate and	Increase Scholarship Funding

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
comparable with or exceeds *national trends* (2).	Community Colleges and TSTC and UTPA Attract students to CS Department by offering TA & RA Assistantships prior to the start of the semester. Enhance electronic Out-Reach Advertising Organize summer camps for high school students Organize CS Student Research Day Conference Promote CS Dept.-UTPA Awareness Activity Program both on-site & off campus Provide student support through mentoring program	chair will compute the change in SCH's and declared majors by May 2007.	graduate programs will increase by 5% in AY 2006-2007 in comparison to AY 2005-2006.	Increase Travel Budget

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

UTPA Goal:	Become an outstanding research institution, emphasizing collaborative partnerships and entrepreneurship.
Academic Affairs Objective:	Foster intramural and extramural collaborative research partnerships. Establish a research environment that is student-learner centered. Provide support for the improvement of the research infrastructure. Establish a framework for external support of research and entrepreneurial activities.
College/AVP Objective:	Increase research collaborations among departments and other colleges and universities. Hire strong research faculty who can teach. Increase space and resources for research. Increase funding for research through endowments, grants, contracts, and gifts. Expand undergraduate and graduate courses, programs, especially doctoral programs.

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 the number of peer reviewed publications & presentations by faculty and students. (3)	Hire strong research faculty who can teach well. Organize research workshops, seminars, and colloquia. Increase paper publications. Increase external grant proposal submissions. Increase the number of undergraduate and graduate students with research experience.	Faculty and student presentations and publications will increase by 5% in the current academic year.	Faculty and student presentations and publications will increase by 5% in AY 2006-2007 in comparison to AY 2005-2006.	National-level competitive salary and start-up funds. None. New Research Assistants Increase Travel Funding. New Research Assistants Increase Travel Funding. Research lab space Increase undergraduate research assistance

Annual Assessment Report: June 1, 2006–May 31, 2007

Unit: **Department of Computer Science**

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. Zhixiang Chen

Unit Mission:

The Department of Computer Science is an academic department in the School of Engineering and Computer Science at the University of Texas Pan-American. Currently, the School is an administrative unit within the College of Science and Engineering. The department offers four degrees: Bachelor's of Science in Computer Science (BSCS) as a broad-field major, Bachelor's of Science with a major in Computer Science (BS) with a required minor field, Master's of Science with a major in Computer Science (MS) and Master's of Science in Information Technology (MSIT). The department offers courses leading to teacher certification in computer information systems, service courses to fulfill University College / General Education requirements, and computer science courses required for degree programs in engineering, science and mathematics. The faculty conduct research in computer science, computer science education and interdisciplinary fields, and contribute their professional service to student advising, mentoring, professional organizations, university activities, industrial interactions and to the community through professional expertise.

The undergraduate curricula in computer science are based on Association for Computing Machinery and Institute of Electrical and Electronics Engineers Computer Society recommendations for curricula and reflect the goals of liberal arts education. The graduate curricula provide advanced and specialized study in the areas of computer science and information technology. The curricula in computer science provide the student with marketable expertise to enter computing and information technology fields, the skills and education required to adapt to the rapid change characteristic of the fields, and the foundation to pursue graduate study in computer science and information technology.

Annual Assessment Report June 1, 2006–May 31, 2007

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. Establish a separate Learning and Teaching Excellence Center to improve instructional practices and promote student engagement in learning.
College/AVP Objective:	Give students and design programs with more flexibility to meet core requirements, and reduce time to graduation. Plan and develop new academic programs and centers of excellence.

Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
To establish specific steps to a multidisciplinary PhD program in Computational Science and Engineering in accordance with the University's vision. (1)	A written agreement between the Chairs of the Computer Science Department and the Dean Dr. LeMaster expressing the expectations necessary for the multidisciplinary PhD program development by May 2007.	Agenda & minutes of meeting & Joint Agreement, by May 31, 2007.	(1) A series of meetings planning meetings were hold among Dean and the chair along with CS graduate director and CE director. (2) A series of planning meetings were held among CS, EE and ME chairs, and CE director. (3) A series of meeting were held with Dean and CS, EE, ME chairs and CE director. (4) A one-day college Ph.D. Program Planning Meeting was held. (5) A decision was made to establish an interdisciplinary Ph.D. Programming in Engineering Science. This is joint program among CS, EE and ME departments with concentrations on CE, EE, ME and Nanotechnoloy.	A proposal of the interdisciplinary Ph.D. Program in Engineering Science was produced along with EE and ME and submitted to the UTPA APPC Committee for Planning Authority and Addition to Table of Programs. The proposal was approved by the UTPA APPC on August 31, 2007.

Annual Assessment Report June 1, 2006–May 31, 2007

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. Collaborate with PK-12 institutions, STC and UTPA on curriculum alignment
College/AVP Objective:	Promote and enhance educational/research opportunities for K-12 students, and establish standards for students entering COS&E. Design a systematic outreach and recruitment plan to reach school districts in the Valley.

Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
Maintain undergraduate & graduate enrollment that is comparable with or exceeds *national trends* (2).	Using 2005/2006 data as a baseline, the department chair will compute the change in SCH's and declared majors by May 2007.	Enrollment in undergraduate and graduate programs will increase by 5% in AY 2006-2007 in comparison to AY 2005-2006.	(1) the baseline AY05-06 data (spring + fall) is undergraduate SCH 4376 and graduate SCH 855, total 5231. (2) The AY 06-07 data (spring + fall) is undergraduate SCH 4498, graduate SCH 899, total 5397 (3) Undergraduate SCH is increased by 2.8%. The graduate SCH is increased by 5.1%, the total SCH is increased by 3.2%. The criterion of the 5% increase in SCH is partially met.	The reason for not fully meeting the 5% increase in SCH is due to low enrollment in CSCI 1300, 1200 and 1360 courses, those are part of the general core. Because of the major undergoing change of the general core, those are likely left outside the general core. The low enrollment is expected.

Annual Assessment Report June 1, 2006–May 31, 2007

UTPA Goal:	Become an outstanding research institution, emphasizing collaborative partnerships and entrepreneurship.
Academic Affairs Objective:	Foster intramural and extramural collaborative research partnerships. Establish a research environment that is student-learner centered. Provide support for the improvement of the research infrastructure. Establish a framework for external support of research and entrepreneurial activities.
College/AVP Objective:	Increase research collaborations among departments and other colleges and universities. Hire strong research faculty who can teach. Increase space and resources for research. Increase funding for research through endowments, grants, contracts, and gifts. Expand undergraduate and graduate courses, programs, especially doctoral programs.

Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
Increase the number of peer reviewed publications & presentations by faculty and students. (3)	Faculty and student presentations and publications will increase by 5% in the current academic year.	Faculty and student presentations and publications will increase by 5% in AY 2006-2007 in comparison to AY 2005-2006.	(1) The AY 05-06 number of publications is 16 (2) The AY 06-07 number of publications is 26. (3) The increase is 6.25%. The criterion is met.	(1) Plan to keep this 5% increase for AY07-08 (2) Plan to increase grant proposal submissions in AY07-08.