

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

**Department of Manufacturing Engineering**

**Annual Action Plan  
Annual Assessment Report**

**June 2005 – May 2006**

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



**Annual Action Plan: June 1, 2005–May 31, 2006**

**Unit:** Department of Manufacturing Engineering

**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:** Subhash Bose

**Unit Mission:** The Manufacturing Engineering Department will provide students a quality education to prepare them for the practice of engineering, with sufficient depth to continue their education towards a Doctoral degree. The curriculum will provide skills that enhance the understanding of the applications of engineering sciences. The faculty will be readily accessible and will continually strive to improve their instructional materials and the methods of dissemination. The faculty will also practice life long learning by keeping abreast of and participating in the latest developments in their chosen areas of expertise and interacting across disciplines.

**Unit Goal:** To provide a quality manufacturing engineering program grounded in liberal arts and humanities, that cultivates active life-long learning, critical thinking, problem solving, and an awareness of environmental and societal impacts of technology.

**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 FY06
Maintain an ongoing self-assessment (student learning improvement program) process as required by ABET, University, and SACS standards. (1)	2,3,6	Complete academic assessment cycle each year, including assessment pre-tests, survey.	<ul style="list-style-type: none"> <li>• Appoint “point person” to supervise and manage process.</li> <li>• Assign faculty to administer specific</li> </ul>	By May 2006: <ul style="list-style-type: none"> <li>• 100% of the pre-test results are evaluated and documented.</li> <li>• 80% or better of May</li> </ul>	None

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			tests.	2006 graduates will have completed exit survey.	
Develop a new graduate degree program in Engineering Management and a Ph.D. program in manufacturing engineering. (2)	3	Final submission of proposals to Graduate Council.	<ul style="list-style-type: none"> <li>Appoint “point person” to supervise and manage proposal writing.</li> <li>Hire a technical consultant to review and comment on the draft of the Ph.D. proposal.</li> <li>Work with dean, and AVPG Studies to ensure timely submission.</li> </ul>	Revised proposal submitted no later than May 31, 2006.	None

<b>Unit Goal:</b>	To facilitate and reward excellence in scholarship and research
<b>Link to UTPA Goal(s):</b>	<ol style="list-style-type: none"> <li>1. Ensure undergraduate student access and success</li> <li>2. Enhance graduate education and research</li> </ol>

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 FY06
Increase proposal submissions. (3)	5	An average of at least one major external proposal per tenured/tenure-track	<ul style="list-style-type: none"> <li>Ensure that faculty members have prompt notification of grant opportunities.</li> </ul>	Over period 6/1/05-5/31/06, over three major (over \$50K) external proposals	Reduced teaching load for research active faculty.

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		faculty should be submitted.	<ul style="list-style-type: none"> <li>Ask senior faculty to mentor or collaborate with junior faculty in grant writing.</li> <li>Adjust teaching assignments for research active faculty.</li> </ul>	should be submitted.	
Maintain student involvement in research. (4)	2,5	At least five undergraduate and ten graduate students should be formally involved in research projects.	Provide assistantships for students.	Department will identify names of at least five students in each category who had support doing research from 6/1/05 – 5/31/06.	None

**Unit Goal:**

To provide effective student recruitment, development, retention, and placement programs designed to promote and service a diverse student population.

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

1. Ensure undergraduate student access and success

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 FY06
Encourage faculty attendance at outreach and recruitment events. (5)	1	All faculty will attend an increased number of events, with emphasis on recruitment.	<ul style="list-style-type: none"> <li>Appoint a “point person” who will assign faculty to specific events.</li> <li>Work with University</li> </ul>	Over period of 6/1/05 - 5/31/06, faculty will average at least one recruitment related event attended.	None

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			Relations to identify opportunities.		
Maintain undergraduate student involvement in educational activities. (6)	1, 3	At least ten students should participate in departmental educational activities like HESTEC and Math Counts competitions.	Give extra credit for student participation.	At least 80% of students participate in the programs.	None



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

Unit Objective (Priority: #1 is highest)	Link to UTPA Objective	Expected Outcome	Assessment Criteria, Evaluation Methods	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
Maintain an ongoing self-assessment (student learning improvement program) process as required by ABET, University, and SACS standards. (1)	2,3,6	Complete academic assessment cycle each year, including assessment pre-tests, survey.	By May 2006: <ul style="list-style-type: none"> <li>• 100% of the pre-test results are evaluated and documented.</li> <li>• 80% or better of May</li> </ul>	<ul style="list-style-type: none"> <li>• 55% of students scored 60% or higher with a grade of C.</li> <li>• 57% of students</li> </ul>	<ul style="list-style-type: none"> <li>• Homework will be assigned weekly instead at the end of a chapter.</li> <li>• Exit survey will be</li> </ul>

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			2006 graduates will have completed exit survey.	completed exit survey	given before the final presentation on dead days.
Develop a new graduate degree program in Engineering Management and a Ph.D. program in manufacturing engineering. (2)	3	Final submission of proposals to Graduate Council.	Revised proposal submitted no later than May 31, 2006.	MS Engineering Mgmt proposal and the Ph.D. program proposals were submitted before May 31, 2006.	Expecting approval of the master's program by September 2006 and approval of the Ph.D. program by Fall 2007.

**Unit Goal:**

To facilitate and reward excellence in scholarship and research

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

1. Ensure undergraduate student access and success
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Unit Objective (Priority: #1 is highest)	Link to UTPA Objective	Expected Outcome	Assessment Criteria, Evaluation Methods	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
Increase proposal submissions. (3)	5	An average of at least one major external proposal per tenured/tenure-track faculty should be submitted.	Over period 6/1/05-5/31/06, over three major (over \$50K) external proposals should be submitted.	Three proposals were submitted.	Teaching work load will be reduced.
Maintain student involvement in research. (4)	2,5	At least five undergraduate and ten graduate students should be formally involved in research projects.	Department will identify names of at least five students in each category who had support doing research from 6/1/05 – 5/31/06.	Two undergraduate students are involved in research through AMP and five graduate students are involved in research supported by	Requested more graduate teaching/research assistantships.

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				the department.	

**Unit Goal:**

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1. Ensure undergraduate student access and success

Unit Objective (Priority: #1 is highest)	Link to UTPA Objective	Expected Outcome	Assessment Criteria, Evaluation Methods	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
Encourage faculty attendance at outreach and recruitment events. (5)	1	All faculty will attend an increased number of events, with emphasis on recruitment.	Over period of 6/1/05 - 5/31/06, faculty will average at least one recruitment related event attended.	67% of faculty attended recruitment events.	Service points will be given to faculty for attending recruitment events.
Maintain undergraduate student involvement in educational activities. (6)	1, 3	At least ten students should participate in departmental educational activities like HESTEC and Math Counts competitions.	At least 80% of students participate in the programs.	90% of students participated in departmental educational activities.	Continue to give extra points in homework for attending educational activities.