

The Department of Mathematics

Strategic Action Plan

2005 - 2006

Date Completed:

Action Priority #1: Student learning outcomes assessment

Unit Goal #1: To provide, in the Department of Mathematics, a variety of quality academic programs grounded in the liberal arts so as to cultivate active learning, critical thinking, and interdisciplinary perspectives.

Unit goal supports Institutional Goal Area #2: Teaching-Learning

Goal Statement: To educate a multicultural populace for life, work, and leadership in a global society through the provision of high quality bachelor's, master's, doctoral, and professional degree and certification programs.

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #1: The Department of Mathematics will implement a 2005-2006 student learning improvement plan, based on the 2004-2005 student learning outcome assessments, for the masters program, the bachelors program in mathematics, and the bachelors program in middle school mathematics teaching

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The Departments of Mathematics will address the effectiveness of their student learning improvement plans in the 2005-2006 Annual Assessment Report due in June 2006.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Ensure the implementation of student learning improvement plans (SLIP) in all degreed programs.	Department Chair and Program Coordinators	None	Nov 2005	Memos, minutes, status reports
Ensure that all degreed programs in the Department of Mathematics report to the chair the results achieved from implementing the	Department Chair	None	March 2006	Student learning improvement plan assessment reports.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
student learning improvement plan.				
Ensure that all degreed programs in each department report to the chair the results achieved from implementing the student learning improvement plan.	Department Chairs	None	May 2006	Student learning improvement plan assessment reports (SLIPAR)

Action Priority #2: Time-to-graduation

Unit Goal #5: To provide effective student recruitment, development, retention, and placement programs designed to promote and serve a diverse student population.

Unit goal supports Institutional Goal Area #1: Access and Success

Goal Statement: To extend the benefits of higher education to more people and improve student access and success by providing all qualified learners with the opportunity to have and pursue high educational aspirations and the financial, academic, and co-curricular support to fulfill their educational goals.

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #1: In Fall 2005, the Department of Mathematics will conduct an assessment of time-to-graduation for degreed programs offered.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: In January 2006, the chairs will submit to the dean a report detailing the time-to-graduation baseline for each degreed program in the Department of Mathematics.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Disseminate instructions to deans and chairs for assessing time-to-graduation. Request that OIRE prepare a data set for time to graduation for the students of Math and a listing of the names and	Department Chair	None	Fall 2005	Report to Dean

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
contact information of the students who have dropped out of each major.				
Monitor the progress of the department in conducting the assessment. The departments should contact the students who have dropped out to find dominant causes.	Department Chair	None	Fall 2005	Status reports presented to department faculty

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #2: The department will develop an integrated plan for improving time-to-graduation in its degreed programs beginning in AY 2006-2007.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: By August 1, 2006, the department chair will approve the department plan for improving time-to-graduation or will request submission of revised plans by August 7, 2006.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Set deadline for each degreed program to submit improvement plan to department chair.	Dean	None	January 2006	Memos to department faculty
Submit integrated improvement plan for department the faculty based on the data collected on the previous item.	Department Chair	None	June 2006	Departmental improvement plans
Prepare integrated department plan.	Department Chair	None	June 2006	Integrated college plan
Submit integrated department plan for improving time-to-graduation to Dean for approval.	Department Chair	None	July 1, 2006	Official notification of approval or request for revision

Action Priority #3: Student success

Unit Goal #5: To provide effective student recruitment, development, retention, and placement programs designed to promote and serve a diverse student population.

Unit goal supports Institutional Goal Area #1: Access and Success

Goal Statement: To extend the benefits of higher education to more people and improve student access and success by providing all qualified learners with the opportunity to have and pursue high educational aspirations and the financial, academic, and co-curricular support to fulfill their educational goals.

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #1: During summer 2005, request faculty input for a definition of student success including a list of factors that contribute to student success.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: By the end of September 2005, turn in to the COSE the Department of Mathematics input to the definition of student success, including a list of factors that contribute to the student success.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Appoint a task force composed of faculty, chairs and staff to draft a definition and identify factors. The data collected in the study of the dropouts from the college majors will form the basis of these factors.	Department Chair	None	August 2005	Report to chair
Present the Task force report to the Math Faculty and present a report to the Dean	Department Chair	None	September 2005	Report to Dean

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #2: The department of Mathematics will review the COSE official list of factors that contribute to student success and prepare an integrated plan for measuring student success in its programs beginning in September 2006.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: By June 15, 2006, the chair of the department will turn in to the dean the department’s plans for measuring student success.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Departmental review of student success factors.	Department Chairs	None	January 2006 November 2005	Memo to faculty
Submit to Math faculty the departmental plans to measure student success in 2006-07.	Department Chair	None	October 2005	Memo to faculty chairs
	Department Chair	None	June 2006	Department plans
Submit final departmental plan to measure student success	Department Chair	None	June 2006	Report to Dean

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #3: In spring 2006, each academic support unit in the department will review the official list of factors that contribute to student success, examine its current efforts to enhance student success, and report its findings to the department chair.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: By March, 2006, each academic support unit in the department will report its efforts to enhance student success to the department chair.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Set deadline for academic support units to review student success factors and examine current efforts to enhance student success.	Department chair	None	November 2005	Memos to chairs of committees
Schedule dates for academic support unit directors to report to dean	Department chair	None	November 2005	Memo to chairs of committees

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #4: By the Fall 2005, the Department of Mathematics will ask for Institutional Enhancement funding to conduct a study related to the retention of mathematics students over the last 10 years. This study will include alumni, currently enrolled students and students formerly enrolled in one of the department’s degree programs; but will focus on students who have dropped out of their study programs. The study will seek answers that will improve the department’s student retention rate.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: By May, 2006, the Department of Mathematics will report its efforts to enhance student success to the dean.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Proposal to Institutional Enhancement asking for support to conduct a study on retention of the department’s majors	Department Chair	As per the proposal budget that will be part of the project; resources required will include funding for creation of and mailing of a college survey and college alumni newsletter, wages for student assistants, a room to house the department’s retention facility, and funding for a video and highlight posters for a Department’s Success Hall of Fame	January 2006	Proposal to Institutional Enhancement
Request from OIRE, of a Mathematics alumni database and a database of current majors and former majors who have dropped out of their respective programs	Department Chair	None	August, 2005	Copy of Mathematics student major database

Action Priority #4: Research productivity

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
 (For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #1: Increase the number of publications by faculty and students of the Department of Mathematics by 15% in AY 2005-06 compared to AY 2004-05.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The Department chair, with the help of the Department’s Planning Committee Chair will inform the faculty to maintain an updated record of their publication progress in the department’s files. These publication records will follow the College guidelines, and they will be used to fill out the forms submitted to the College for AY 2004-05 and for AY 2005-06. Progress reports will be presented in the Spring of 2005 and 2006.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Increase number of students with undergraduate research experience	Department Chair, LSAMP Coordinator, chair of department’s Planning committee and tenure/tenure track faculty	None	August, 2006	Count of number of students involved in undergraduate research with Department faculty; compare to previous year.
Increase number of graduate students pursuing masters’ research projects.	Department Chair, LSAMP Coordinator, Graduate Coordinator and tenure/tenure track faculty	None	August, 2006	Headcount of graduate students in these projects compared to AY 2004-2005
Work towards a merit system that encourages publication.	Department Chair, MAFE committee	None	August, 2006	Statements in new Department merit document rewarding faculty for these activities.

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
 (For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #2: Increase the number of research presentations made by College faculty and by College students by 15% in AY 2005-06 compared to AY 2004-05.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The Department Chair, with the help of the Department’s Planning Committee Chair, will monitor the progress and organize activities to increase the number of faculty research presentations for AY 2005-06, and compare the number of those in AY 2004-05. Progress reports will be presented in the Spring 2005 and 2006 departmental retreats.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Increase number of students with undergraduate research experience	Department Chair, LSAMP Coordinator and chair of department’s Planning Committee	None	August, 2006	Count of number of student’s involved in undergraduate research with Department faculty. Count publications in AY 2005-2006 and compare to AY 2004-2005
Increase number of graduate students pursuing master theses	Department Chair, LSAMP Coordinator and Graduate Coordinator	None	August, 2006	Headcount of graduate students in theses projects compared to AY 2004-2005
Work towards a merit system that encourages research presentations	Department Chair	None	August, 2006	Statement in Department merit document that rewards faculty for presentations contributions.
Increase the number of colloquium and seminar talks and conferences in the department	Department Chair, Chairs of colloquium and seminar committees	None	August, 2006	Count of number of research presentations made in the department

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
(For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #3: Increase the number of external grants received by College faculty by 10%, and the number of proposals submitted by 20%.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The Department Chair with the help of the chair of the department’s Planning Committee will encourage and facilitate faculty to increase the number of proposals funded for AY 2005-2006 and compare the number to those of AY 2004-2005. Only research proposals submitted and funded during the assessment period will be considered in this count. Faculty will be asked to keep the department’s research files updated including submitted and funded proposals, to facilitate the assessment of this objective.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Continue to develop and submit research participation proposals	Tenure/tenure track faculty.	None	August, 2006	Count number of proposals.
Allow discretionary release time	Department Chair and Dean of COS&E	Release time approval by Provost	August, 2006	Discretionary release time authority to Dean.

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
(For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #4: Increase the number of students completing research projects in their courses by 10%.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The department chair, with the help of the chair of the department’s Planning Committee, will determine the number of students completing research projects as part of their coursework in the department for AY 2005-2006 and compare to those of AY 2004-2205. Both graduate and undergraduate courses will be considered for this count. The end of each respective academic year (August 31) will be used as the effective date for counting.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Increase number of students completing research projects in their courses.	Department Chair and tenure/tenure track faculty	None	August, 2006	Number of students participating in research projects vs. those numbers from previous years.

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
(For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #5: Increase the number of students with undergraduate research experience by 10%.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The faculty of the department of Mathematics will be asked to maintain their research file updated with their student-based research activities, in order to facilitate the College dean’s research records. The end of each academic year (August 31) will be used as the official counting date.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Obtain more research grants so as to fund undergraduate research students	Department Chair, chair of the Department's Planning Committee tenure/tenure track faculty.	None	August, 2006	Number of successful research grants compared to AY 2004-2005.
Having a merit system that rewards working with undergraduates	Department Chair, MAFE Committee	None	August, 2006	Statement in Department's Annual Evaluation document that shows credit for faculty engaged in undergraduate research activities.

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
(For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #6: Increase the number of College faculty participating in student-based activities by 10%.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: Faculty of the department of mathematics will be asked to keep the department's research files updated on a monthly base listing their student-based research activities. The Department chair will receive a report from the chair of the Planning Committee with a summary of the forms submitted by the faculty to the College.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Have department engage in additional student-based activities	Department Chair and tenure/tenure track faculty	Some funding may be necessary to initiate College-level student-based activities	August, 2006	Increase in student-based activities from AY 2004-2005.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Develop merit incentives to reward faculty participating in student-based activities	Department Chair and Annual Evaluation Committee	None	August, 2006	Statements in Department Annual Evaluation document showing credit for faculty participating in such activities.

Unit Goal #1: Increase Faculty and Student Research Opportunities

Unit goal supports: Division Goal # 3 Assoc./Asst. VP Administrative Goal # N/A College Goal # 3
(For alignment purposes, enter the corresponding goal number after the # sign for at least one of the three categories above.)

[The measurable objective must express an expected outcome and include the performance indicator (quantitative/qualitative standard to achieve).]

Measurable Objective #7: Increase the number of students matriculating into graduate programs by 10%.

[The method of assessment must describe the how, who, and when.]

Method of assessing achievement of measurable objective: The Department chair with the help of the Graduate Coordinator will report to the dean, by August 31 of AY 2005 and AY 2006 the number of students matriculating in the department’s M.S.

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Cooperate with dean of the college in his efforts to increase partnerships with regional institutions so as to develop automatic admissions to research programs	Department Chair and LSAMP Coordinator	None	August, 2006	Develop two additional partnerships with state, regional or national universities that provide a pathway for students seeking programs.
Continue to establish collaborative arrangements or partnerships to support summer research for students	Department Chair and LSAMP Coordinator	None	August, 2006	Evidence for two additional collaborations that offer summer research opportunities for UTPA students

Strategies for Achieving Measurable Objective	Person(s) Responsible	New Resources Required	Target Date during 2005-06	Evidence of Achievement
Create the masters theses option in the MS in Mathematics	Mathematics Graduate Coordinator	None	August, 2005	Submit proposal to Associate Vice President for Graduate Research.

Timetable for the AY 2005-2006 Strategic Action Plan

The table below lists the deadlines for the key actions described in the measurable objectives, methods of assessment, and strategies of the strategic action plan. The abbreviations used in the third column refer to the original item in the action plan.

Abbreviations:

- AP Action Priority
- MO Measurable Objective
- MoA Method of Assessment
- S Strategy

Time Frame	Action	Item in SAP
Fall 2005		
Fall semester	All degreed programs implement 2005-06 student learning improvement plan Each college conducts assessment of time-to-graduation in all degreed programs	AP1, MO1, S1 AP2, MO1
September	Office of the Provost disseminates instructions to colleges for assessing time-to-graduation Provost appoints task force to draft definition of student success Provost requests deans to submit 2004-05 data on scholarly productivity	AP2, MO1, S1 AP3, MO1, S1 AP4, MO1, S1
November	Office of the Provost disseminates official definition of student success and list of factors contributing to student success AVP Research submits report on 2004-05 scholarly productivity to Provost	AP3, MO1, MoA AP4, MO1, S3
December	Provost announces official baseline for scholarly productivity by academic programs	AP4, MO1, MoA
Spring 2006		

Time Frame	Action	Item in SAP
January	Deans submit time-to-graduation baseline report for all degreed programs	AP2, MO1, MoA
	Deans/chairs set deadline for degreed programs to submit time-to-graduation improvement plan to department	AP2, MO2, S1
	Deans set deadline for departments to submit time-to-graduation improvement plan	AP2, MO2, S1
January (cont.)	Deans set deadline for departmental reviews of student success factors	AP3, MO2, S1
	Deans set deadline for submission of departmental plans to measure student success	AP3, MO2, S2
	Provost/AVPs set deadline for academic support units to review student success factors and examine current efforts to enhance student success	AP3, MO3, S1
	Provost schedules academic support unit reports on student success to PMG	AP3, MO3, S2
February	AVP for Research reports official figures for level of research expenditures for 2004-05	AP4, MO2, MoA
	AVP for Research reports official figures for level of external funding for 2004-05	AP4, MO3, MoA
March-April	Academic support units report efforts to enhance student success to PMG	AP3, MO3, MoA
May	Degreed programs in each department report results of student learning improvement plan to chair	AP1, MO1, S3
Summer 2006		
June	Academic departments address results of student learning improvement plans in 2005-06 annual assessment report	AP1, MO1, MoA
	Academic departments submit time-to-graduation improvement plan to dean	AP2, MO2, S2
July	Colleges submit 2006-07 integrated plan for improving time-to-graduation in degreed programs	AP2, MO2, S4
	Colleges submit 2006-07 integrated plan for measuring student success in all programs	AP3, MO2, S4
August 8	2006-07 integrated college plans for improving time-to-graduation approved by Provost	AP2, MO2, MoA
August 15	2006-07 integrated college plans for measuring student success approved by Provost	AP3, MO2, MoA