Mission / Purpose
The mission of the University of West Alabama Department of Mathematics is to prepare our students for successful careers in industry, teaching, and graduate school through classroom instruction, advising, and mentoring.

I. Goals and Student Learning Outcomes/Objectives, with Related Measures, Targets, Findings, and Action Plans

A. Goal: Address the major educational issues of the region
Address the major educational, social, cultural, and economic issues of the region and in doing so promote a positive image of the institution and the area.

1. Outcome: Majors will demonstrate mastery of pure and applied mathematical skills
Mathematics majors will show an acceptable mastery of pure and applied mathematical skills.

a. Measure: Majors will achieve above average grades in upper level courses
Math majors will achieve grades that are above average in 300 and 400 level mathematics courses.

1. Achievement Target:
75% of mathematics majors enrolled in 300 and/or 400 level math courses will make a grade of A or B.

2. Findings (2011-2012) - Target: Met
75% of our math majors received a grade of A or B in upper level courses.

2. Outcome: Students will use standard mathematical techniques to solve elementary problems
Students will use standard mathematical techniques to solve elementary problems by successful completion of the developmental mathematics program.

a. Measure: Developmental mathematics students will demonstrate proficiency in basic techniques of algebra and problem solving skills
Developmental mathematics students in MH 080, MH 081, and MH 101 will demonstrate proficiency in basic techniques of algebra and problem solving skills. Comprehensive final exams in these courses measure these abilities.

1. Achievement Target:
Students in MH 080 will demonstrate proficiency on the comprehensive final exam by making a score of 70 or higher. Students in MH 081 will demonstrate proficiency on the comprehensive final exam by making a score
of 70 or higher. Students in MH 101 will demonstrate proficiency on the comprehensive final exam by making a score of 70 or higher.

2. Findings (2011-2012) - Target: Met
75% of developmental mathematics students who took the final exam made a score of 70 or higher.

II. Goals and Other Outcomes/Objectives, with Related Measures, Targets, Findings, and Action Plans

A. Goal: Address the major educational issues of the region
Address the major educational, social, cultural, and economic issues of the region and in doing so promote a positive image of the institution and the area.

1. Objective: Employ a sufficient number of qualified faculty
Employ a sufficient number of qualified faculty.

a. Measure: Maintain current faculty
Maintain current faculty.

1. Achievement Target:
The Department of Mathematics will retain current faculty.

2. Findings (2011-2012) - Target: Met
The Math Department retained all faculty. The Math Department also hired a new faculty member for our new track in Actuarial Science.

2. Objective: Increase awareness of the department and its degree programs
The Department of Mathematics will, through a variety of means, promote an increased level of awareness by the public of the department and its degree programs.

a. Measure: Faculty members will participate in service projects.
Awareness of the Department of Mathematics will be observed through the participation of faculty members in service projects.

1. Achievement Target:
All faculty members will participate in at least one service project. The department will endeavor to take one recruiting trip per academic year.

2. Findings (2011-2012) - Target: Met
Mathematics faculty participated in many outreach activities and service projects including the UWA Science Olympiad, the AISA Mathematics Tournament, various local science fairs, and the West Alabama Regional Science Fair.

3. Objective: Majors will be prepared for graduate studies or careers in related fields
Mathematics majors will be prepared for graduate studies or careers in mathematics related fields by enhancing their skills in critical thinking, communication skills, and use of technology.

a. **Measure:** Mathematics graduates who apply for graduate school will be accepted.
   Mathematics graduates who apply for graduate school will be accepted.

1. **Achievement Target:**
   100% of mathematics graduates who apply for graduate school will be accepted.

2. **Findings (2011-2012) - Target: Met**
   100% of students who applied for graduate school were accepted.

4. **Objective: Provide majors with extracurricular activities**
   The Department of Mathematics will provide the opportunity for students to participate in extracurricular activities through the UWA Math Club and Kappa Mu Epsilon Honor Society.

a. **Measure:** Maintain regular meetings for extracurricular activities
   Both the UWA Math Club and KME will have regular meetings throughout the fall and spring semesters

1. **Achievement Target:**
   Both the UWA Math Club and KME will have regular meetings throughout the fall and spring semesters

2. **Findings (2011-2012) - Target: Met**
   The UWA Math Club and Kappa Mu Epsilon, our mathematics honor society, held regular meetings during the 2011-2012 academic year.

5. **Objective: Maintain presence at meetings**
   The Department of Mathematics will strive to maintain a presence at mathematics meetings and conferences within the state of Alabama.

a. **Measure:** Faculty will attend meetings and conferences
   Faculty will attend meetings and conferences. This can be assessed by a review of departmental travel and reimbursement records.

1. **Achievement Target:**
   10% of faculty will attend meetings and conferences

2. **Findings (2011-2012) - Target: Met**
   38% of math faculty attended conferences and 100% attended university related meetings.

6. **Objective: Investigate the addition of an Actuarial Science track in Mathematics**
   Investigate the addition of an Actuarial Science track in mathematics.
a. Measure: Investigate the additional courses needed for Actuarial Sciences track
   Investigate the additional courses needed for the track.

1. Achievement Target:
   Decide the courses that must be added for the Actuarial Sciences track.

2. Findings (2011-2012) - Target: Met
   Actuarial Science faculty met and approved all courses needed for the Actuarial Science track.

III. Other Plans for Improvement:

A. Continue support of *Alabama Journal*.
   Continue support of *Alabama Journal*.
   Established in Cycle: 2010-2011
   Implementation Status: In-Progress
   Priority: High
   Implementation Description: Continue process currently in place.

B. Decision and Action
   The Math Department will decide whether a new master's level position is needed and act accordingly and will also advertise for a new Ph.D. position.
   Established in Cycle: 2010-2011
   Implementation Status: Planned
   Priority: High

C. Increase repetition of exercises
   Developmental faculty will increase repetition of exercises in class and out of class assignments. Mandatory lab sessions will be monitored.
   Established in Cycle: 2010-2011
   Implementation Status: In-Progress
   Priority: High
   Implementation Description: Meet with faculty
   Responsible Person/Group: Developmental math faculty and chair.

D. Add two Ph.D. positions
   Add two Ph.D. positions.
   Established in Cycle: 2011-2012
   Implementation Status: Finished
   Priority: High
   Implementation Description: Advertise positions and conduct interviews.
   Projected Completion Date: 08/14/2011
   Responsible Person/Group: Chair and search committee.
   Additional Resources Requested: Salary=$95000 Equipment=$4000 Supplies=$1000
   Budget Amount Requested: $100,000.00 (recurring)
IV. Analysis Questions and Analysis Answers

A. What specific strengths did your assessments show? (Strengths)
   Faculty and staff are involved with numerous outreach activities, workshops,
   conferences, and student mentoring. We have had great success with our students
   being accepted to graduate school.

B. What specific weaknesses or challenges did your assessments show? (Weaknesses)
   The Math Department would like to increase the number of mathematics majors.
   The Math Department is optimistic that numbers will increase by virtue of the new
   track in Actuarial Science.

C. What plans were implemented?
   The Mathematics Department established a new track in Actuarial Science.

D. What plans were not implemented?
   All plans were implemented.

E. How will assessment results be used for continuous improvement?
   The Department of Mathematics will endeavor to use the planning and assessment
   documents to monitor student success.

V. Annual Report Section Responses

A. Key Achievements
   • Supervised events at the Science Olympiad
   • Judged numerous science fairs at area high schools and middle schools
   • Judged the West Alabama Regional Science Fair
   • Initiated five new members to the Kappa Mu Epsilon Honor Society

B. Public/Community Service
   • Hosted the AISA District Mathematics Tournament
   • Judged numerous local science fairs
   • Judged the West Alabama Regional Science Fair
   • Participated in the UWA Science Olympiad, an outreach activity for
   elementary school children.
### ANNUAL PLAN

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<thead>
<tr>
<th>Item</th>
<th>Approved</th>
<th>Remarks</th>
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<tbody>
<tr>
<td><strong>Goals</strong></td>
<td>YES</td>
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<tr>
<td>Goals are broad statements describing what the unit wants to accomplish. Goals relate to both the unit's mission and the University's mission. The goal(s) is stated as the University goal(s) a unit is attempting to meet.</td>
<td>YES</td>
<td>2) typo</td>
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<tr>
<td><strong>Outcomes/Objectives</strong></td>
<td>YES</td>
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<tr>
<td>Outcomes and objectives are statements that describe in some detail what the unit plans to accomplish. Outcomes/objectives are associated with all applicable goals, strategic plans, standards, and institutional priorities.</td>
<td>YES</td>
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<tr>
<td>Objectives are active-verb descriptions of specific points or tasks the unit will accomplish or reach. Outcomes are active-verb descriptions of a desired end result related to student learning and the unit's mission.</td>
<td>YES</td>
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<td><strong>Measures</strong></td>
<td>YES</td>
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<td>Measures are statements to judge success in achieving the stated outcome or objective. Measures contain information on the type of evidence and assessment tool that a unit will use to verify if stated outcome/objective has been met.</td>
<td>YES</td>
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<td><strong>Achievement Targets</strong></td>
<td>YES</td>
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<td>Achievement targets are the thresholds that the measures must meet for the unit to determine that it has been successful in meeting its specified outcomes/objectives. Achievement targets are measurable statements.</td>
<td>YES</td>
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# Self-Study

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<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td><strong>Findings</strong></td>
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<tr>
<td>Findings are indications whether an outcome/objective was met or not. Findings are put into the system under each achievement target. Findings include an interpretation of results, possible uses of results, reflection on problems encountered, indicated improvements/changes and strengths or weakness.</td>
<td>YES ✓</td>
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<tr>
<td><strong>Action Plans</strong></td>
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<td>Action plans are detailed plans created by the unit to meet an outcome/objective that was only partially met or not met or to make improvement to those outcomes/objectives that were met but still need some strengthening. The plan includes a projected completion date, implementation description, responsible person(s)/group, resources required, and budget amount (if applicable).</td>
<td>YES ✓</td>
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<td>Action plans created in previous cycles have been updated with implementation notes.</td>
<td>YES ✓</td>
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<td><strong>Annual Report</strong></td>
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<td>The Annual Report section contains information on key achievements, faculty and/or staff achievements, and community/public.</td>
<td>YES ✓</td>
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<tr>
<td><strong>Analysis Report</strong></td>
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<td>The unit has reflected on and created narratives for each of the following areas: specific strengths and progress made on outcomes/objectives, specific weaknesses or challenges, plans that were and were not implemented, and how assessment results will be used for continuous improvement.</td>
<td>YES ✓</td>
<td></td>
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Approved by: [Signature]

Date: 7/24/11

Received by OIE: [Signature]

Date: 8/9/12