

Southwest Texas Junior College

Mathematics

Unit Action Plan for 2012 - 2013

Start Date: 9/1/2012 End Date: 5/1/2013

Unit Purpose: The Mathematics Department of Southwest Texas Junior College is an academic unit whose offerings span introductory level through sophomore level courses. These courses are designed to benefit students seeking AA, AS and AAS degrees at the College and students planning to transfer in a related major to four-year institutions. The faculty are professional, caring, experienced educators who seek to challenge each student to realize their potential, to better understand, evaluate and make decisions regarding the world around them and to be prepared to pursue additional studies.

Submitted By
Paul Kimble Yes

Reviewed By
Jim Swink Yes

Approved By
Hector Gonzales Yes

Closeout Ready
Paul Kimble Yes

Closeout Completed
Jim Swink Yes

Planning Outcome No. 1 Mathematics Year: 2012-2013

Expected Outcome: To improve the students ability to reason quantitatively as demonstrated by their problem solving skills.

Outcome Rationale: Previous year's summative assessments indicate student weaknesses in this area. 31% mastery was previously obtained.

Intervention: Increase the number of application-based assignments required by students in our Math 1314 classes. A minimum of 8 assignments of this type will be required of students. Faculty will share a database of application assignments via the college portal and its shared files.

Mission Link: Accessible, affordable, high-quality education

Institutional Goal Link: Quality

Strategic Goal Link: NA

Planning Type: Student Learning

Program Link: General Studies

Program Outcome Link: Reason quantitatively as well as verbally.

Tracking Data:	2008-2009	2009-2010	2010-2011	2011-2012
	55%	75%	69%	31%

Other Links: An intervention designed to improve a student learning or success.

Assessment Method: Embedded field questions requiring application of quantitative reasoning will be placed on the departmental final exam.

Assessment Measures:

Measure	Beginning	Target	Ending
Reason quantitatively as well as verbally	69%	80%	31%
Student success measures on the departmental final exam on embedded questions related to problem solving.	31%	70%	41%

Start-End Date: 9/1/2012 - 5/1/2013

Budget:

Personnel: \$ 0 for
 Equipment: \$ 0 for
 Other: \$ 0 for
 Total Cost: \$ 0 Unit's Budget \$0 Other Funding Source \$0

Findings:

Student performance in the area of problem solving is still below the target score. Faculty have tried to increase the number of application based assignments they require with the shared database of assignments they have created. However, most faculty feedback has been that more practice for students is still needed.

Actions Taken/Changes: Faculty are now expected to increase the number of out of class/graded assignments they provide. This implementation will help both faculty and students take full advantage of the utilities of our online course platform Mymathlab. Faculty are expected to create assignments online which include problem solving on every assignment that is given.

Outcome achieved:

Outcome Resulted in Improved Student Learning:

Outcome Resulted in Improved Student Success:

Person Responsible: Paul Kimble

Date: 2/20/2015

Planning Outcome No. 2 Unit: Mathematics Year: 2012-2013

Expected Outcome: To improve the students ability to express quantitative reasoning though verbal communication.

Outcome Rationale: Poor performance on behalf of students in the area of problem solving on the prior year's summative tests.

Intervention: Faculty will provide classroom modalities where course material is delivered through guided practice and not lecture only. Faculty will promote student learning by interaction with other students and by requiring group discussions with graded group assignments.

Mission Link: Accessible, affordable, high-quality education

Institutional Goal Link: Learning-Centered Environment

Strategic Goal Link: NA

Planning Type: Student Success

Success Indicator: Improve course success

Other Links: An intervention designed to improve a student learning or success.

Assessment Method: Embedded field questions requiring application of quantitative reasoning will be placed on the departmental final exam.

Assessment Measures:

Measure	Beginning	Target	Ending
Student performance on embedded field questions related to problem solving on the final exam.	31%	70%	41%

Start-End Date: 9/1/2012 - 5/1/2013

Budget:

Personnel:	\$	0	for
Equipment:	\$	0	for
Other:	\$	0	for
Total Cost:	\$	0	Unit's Budget \$0 Other Funding Source \$0

Findings: As indicated by results above, student performance has improved in the area of problem solving, but the target has not been reached. Faculty are giving positive feedback regarding the online course platform and its help with problem solving practice exercises.

Actions Taken/Changes: Department will continue intervention during the next year with full implementation of the use of Mymathlab. Faculty have agreed to give at least 4 team exercises in class requiring group learning.

Outcome achieved:

Outcome Resulted in Improved Student Learning:

Outcome Resulted in Improved Student Success:

Person Responsible: Paul Kimble

Date: 2/20/2015