Unit Course Assessment Report - Four Column

Guam Community College

Math & Science Department Courses

Mission Statement: Our Mission is to teach and advise students. The department is committed to excellence in teaching. We strive to provide a high quality basic program in science and mathematics for students in academics and, vocational technical division as well as the community. We encourage our students to continue educational endeavors beyond GCC and believe that our courses provide the foundation needed for higher learning.

Vision Statement: The GCC Math and Sciences Department aims to advance student knowledge, understanding and use of Math and Science by offering courses that enhance skills in developmental, associate degree, diploma and certificate requirements, college transfer prerequisites and a variety of individual academic and personal goals.

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
Math & Science Department Courses - MA052 - General Mathematics - 2012-2013 Catalog SLO#2 - SLO#2 FA-SP: Upon successful completion of this course, students will be able to apply the Metric and English System. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	**Artifact/Instrument/Rubric/Method/Tool Description:** Test on Chapter 6 will be used for the assessment of this SLO on a regular class meeting during the semester. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students are expected to pass with an average of 75% or above.		
Math & Science Department Courses - MA065 - Adult Mathematics - 2012-2013 Catalog SLO#1 - Perform basic operation of	**Artifact/Instrument/Rubric/Method/Tool Description:** A test (Chapter 5) that covers the SLO will		

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whole numbers, fractions, decimals, and percents. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** N/A **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	be administered. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will score 75% or better in the test.		
Math & Science Department Courses - MA085 (formerly MA100) - Fundamentals of Mathematics - 2012-2013 Catalog SLO#2 - Upon successful completion of the course, students will be able to identify and set up a ratio or proportion. (Created By Math & Science Department Courses) **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:**	**Artifact/Instrument/Rubric/Method/Tool Description:** A faculty-developed pre-test and post-test that include all SLOs of the course will be administered. Only those items that are pertaining to SLO #2 - Ratio and Proportion - will be selected for assessment. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will earn a score of 75% or better of the items on Ratio and Proportion in the post-test. **Related Documents:** 2012-2013 Math 085 SLO #2 Spring 2012 Pretest		

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
n/a			
Math & Science Department Courses - MA095 - Pre-College Mathematics - 2012-2013 Catalog SLO#5 - Upon successful completion of this course, students will be able to graph points and lines. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 03/12/2012 **End Date:** 03/12/2014 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	**Artifact/Instrument/Rubric/Method/Tool Description:** A Pre and Post exam was developed to address the SLO's for the assessment. **Type of Artifact/Instrument/Rubric/Method/Tool:** Locally Developed Tests **Criterion (Written in %):** 70% of the students will score a 75% or better on the Post exam. **Related Documents:** Spring 2012 Pretest		
Math & Science Department Courses - MA095 - Pre-College Mathematics - 2011-2012 Catalog SLO#1 - SLO#1 FA-SP: Upon successful completion of this course, students will be able to work with operations involving real numbers both rational and irrational, even with units of measurement. (Created By Math & Science Department Courses) **Start Date:** 10/10/2010 **End Date:** 03/10/2012 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:**	**Artifact/Instrument/Rubric/Method/Tool Description:** An Instructor Created Chapter test is administered during a regular class meeting on scheduled date. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 50% of the student will score a 75% and above in the chapter test. **Artifact/Instrument/Rubric/Method/Tool Description:** A comprehensive pretest which covers all SLOs of the course was administered at the		

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	beginning of Spring 2012. Results of questions that relate to the respective SLOs in this pretest will be compared with the results of the similar questions in the post-test that will be administered at the end of the semester. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will score 75% of above in the post test		
Math & Science Department Courses - MA095 - Pre-College Mathematics - 2011-2012 Catalog SLO#3 - SLO#3: Upon successful completion of this course, students will be able to identify and apply basic geometric properties and concepts. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Cognitive outcomes **Start Date:** 10/10/2011 **End Date:** 03/09/2012 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	**Artifact/Instrument/Rubric/Method/Tool Description:** Chapter test with this SLO was administered on scheduled date **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 60% of the students will receive 75% and above **Related Documents:** Chp 7 - Geo Test Paper: Raw Chapter 7 - Geometry Test Paper 2	12/07/2011 - Data was collected from 14 sections of the classes offered in SPring 2011. Total number of students who took the test in these 14 sections is N=300 and 184 students met the criterion of 75%. This translates to approximate 61.3% (184/300) of the students are able to identify and apply basic geometric properties concepts. **Summary of Result Type:** Criterion Met **Data Collection Status/Summary of Result Status:** Open **Budget Implications:** No budget impact **Notes:** 10 of the 14 sections of the course were taught by adjunct faculty, so the collection of data takes times. **Budget Related Performance Indicators:** n/a **Related Documents:** Chp 7 - Geo Test Paper: Raw 14 section Test summary Chapter 7-Geometry Test Sample1 Chapter 7-Geometry Test sample 2	12/07/2011 - Assign classes to be conducted in classrooms with computers, so instructors can utilize the MathXL program more convenient and will be easier to deliver and collect assessment data.

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
Math & Science Department Courses - MA108 (formerly MA110) - Introduction to College Algebra - 2012-2013 Catalog SLO#3 - Upon successful completion of this course students will be able to solve quadratic equations using the following methods: factoring, completing the square, and the quadratic formula. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 03/12/2012 **End Date:** 03/12/2014 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	**Artifact/Instrument/Rubric/Method/Tool Description:** A Pre and Post exam was developed to address the SLO's for the assessment. **Type of Artifact/Instrument/Rubric/Method/Tool:** Locally Developed Tests **Criterion (Written in %):** 70% of the students will score a 70% or better on the Post exam. **Related Documents:** Spring 2012 Pretest		
Math & Science Department Courses - MA108 (formerly MA110) - Introduction to College Algebra - SLO#2, FA2010-SP2012 - Upon successful completion of this course, students will be able to simplify and solve rational expressions and equations. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 10/10/2010 **End Date:** 03/12/2012	**Artifact/Instrument/Rubric/Method/Tool Description:** Faculty developed test was administered on scheduled regular class meeting either on paper or online with MathXL. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 50% of the Students will earn a 70% or about to pass. **Related Documents:** Testpaper_JessicaF	11/22/2011 - Data was collected from 12 sections of the classes offered in Fall 2011. Total number of students who took the test in these 12 sections is N=191 and 106 students met the criterion of 70%. This translates to approximate 55.5% (106/191) of the students who took the test are able to simplify and solve rational expressions and equations. **Summary of Result Type:** Criterion Met **Data Collection Status/Summary of Result Status:** Open **Budget Implications:**	12/08/2011 - Provide training workshop to adjunct faculty in using of MathXL for supplemental instructional and assessment tool. 11/29/2011 - An unified comprehensive final exam will be distributed to instructors on the final exam date to be administered to respective classes. Results will be collected and analysed.

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
Course Outcome Status: Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** GCC Fact Book **Notes from pull/drop down list above:** This course help students to review and relearn the math skills that are needed to study college level Math courses. This course and MA095 together articulates to UOG's MA095.	Chap14 Test Paper_TrishaB Chap14 Test Paper_CarlT Chap14 Highscore Test Chap14 Lowscore Test Paper_CarlT MA108SLO2_All MA108SLO2_Chart	No budget impact **Notes:** n/a **Budget Related Performance Indicators:** n/a **Related Documents:** Testpaper_JessicaF Chap14 Test Paper_TrishaB Chap14 Test Paper_CarlT Chap14 Highscore Test Chap14 Lowscore Test Paper_CarlT Final Exm 2011 Fall	
Math & Science Department Courses - MA110A (formerly MA112) - Finite Mathematics - 2012-2013 Catalog SLO#1 - Upon successful completion of the course, students will be able to demonstrate understanding of key theories and concepts, applying them to solve questions in matrices. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:**	**Artifact/Instrument/Rubric/Method/Tool Description:** Items from the pre-test and post-test pertaining to the SLO will be selected for the assessment. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will meet the criterion with a score of 75% of above.		

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
n/a			
Math & Science Department Courses - MA110A (formerly MA112) - Finite Mathematics - 2011-2012 Catalog SLO#2 - SLO#2 FA-SP: Upon successful completion of this course, students will be able to solve problems in Finite Mathematics by completing daily homework assignments in problem solving. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Cognitive outcomes **Start Date:** 03/12/2012 **End Date:** 10/14/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Course-level SLO Plan reflects/incorporates:** N/A	**Artifact/Instrument/Rubric/Method/Tool Description:** Quizzes developed from Textbook/ Author (Pearson, Mathxl Program) **Type of Artifact/Instrument/Rubric/Method/Tool:** Textbook/Author Designed Tests **Criterion (Written in %):** Students will score 70% or better on quizzes		
Math & Science Department Courses - MA110A (formerly MA112) - Finite Mathematics - SLO#4 FA2010-SP2012 - SLO#4 FA2010-SP2012: Upon successful completion of this course, students will be able to think critically about Finite Mathematics by applying key theories, concepts, and methods of inquiry in Finite Mathematics to novel problems, to other disciplines, and to situations that require understanding rather than rote memory. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:**	**Artifact/Instrument/Rubric/Method/Tool Description:** A semi-unified comprehensive exam was administered at the end of the fall 2011 semester. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 50% of the students will pass the test with a score 70% or above.	11/30/2011 - Data was collected from 4 sections of the classes offered in Fall 2011. Total number of students who took the test in these 4 sections is N=83 and 63 students met the criterion of 70%. This translated to approximate 63.4% (63/83) of the students are able to apply think critically about Finite Mathematics by applying key theories, concepts, and methods of inquiry in Finite Mathematics to novel problems, to other disciplines, and to situations that require understanding rather than rote memory. **Summary of Result Type:** Criterion Met **Data Collection Status/Summary of Result Status:** Open	11/30/2011 - This SLO covers too broad, so it needs to be modified in the future. **Implementation Status:** 02/15/2012 - Modification of the SLO will start after the conclusion of this assessment cycle.

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
10/10/2011 **End Date:** 03/10/2012 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A		**Budget Implications:** No budget impact **Notes:** This SLO basically cover most of the objectives of this course, so the final exam will provide assessment date for this. **Budget Related Performance Indicators:** n/a **Related Documents:** Final Exam Results Analysis Final Exam Results Analysis 2 Final Exam Paper Project On Finance Problem	
Math & Science Department Courses - MA161A (formerly MA121) - College Algebra & Trigonometry I - 2012-2013 Catalog SLO#3 - FA2012-SP2013 SLO#3 Upon completion of the course, students will be able to Apply basic mathematical concepts and methods involving the concept of sequences, counting processes, probability and mathematical induction. (Created By Math & **Assessment Cycle Domain Type:** SLO-Cognitive outcomes **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:**	**Artifact/Instrument/Rubric/Method/Tool Description:** A Chapter test and /or project pertaining to the SLO will be administered **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will score 70% and above		

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
n/a			
Math & Science Department Courses - MA161B (formerly MA122) - College Algebra & Trigonometry II - 2012-2013 Catalog SLO#1 - Solve systems of linear equations and linear inequalities with alternate methods. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Behavioral outcomes **Start Date:** 03/12/2012 **End Date:** 03/07/2014 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	**Artifact/Instrument/Rubric/Method/Tool Description:** A chapter test that covers this SLO will be administered in the semester after practices and assignments are completed. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will score 70%		
Math & Science Department Courses - SI110 - Environmental Biology - 2012-2013 Catalog SLO#1 - Describe key chemical, biological, ecological, and atmospheric processes that affect organisms, with an emphasis on tropical island environments (Created By Math & Science Department **Assessment Cycle Domain Type:** SLO-Affective outcomes **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed	**Artifact/Instrument/Rubric/Method/Tool Description:** A Pre and Post exam was developed to address the SLO's for the assessment. **Type of Artifact/Instrument/Rubric/Method/Tool:** Locally Developed Tests **Criterion (Written in %):** 70 % overall student passing with a score of 70% or better on post exam. **Related Documents:** SI110_access_tool.pdf		

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
Capstone Course/CTE Related Course: N/A **Type of Industry National Certification:** N/A **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** N/A			
Math & Science Department Courses - SI130 - Anatomy & Physiology - 2012-2013 Catalog SLO#1 - Demonstrate proficiency in the uses of proper anatomical terms when referring to the human body. (Created By Math & Science Department Courses) **Assessment Cycle Domain Type:** SLO-Cognitive outcomes **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** N/A **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** N/A	**Artifact/Instrument/Rubric/Method/Tool Description:** Results from pre-test and and post-test will be compared as indicator of learning. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of students will score 75% or above **Related Documents:** Pretest_SI130		
Math & Science Department Courses - SI141 - Applied Physics I - 2011-2012 Catalog SLO#1 - SLO#1 FA-SP: Upon successful completion of this course, students will be able to define key terminology used in the physics field. (Created By Math & Science Department Courses)	**Artifact/Instrument/Rubric/Method/Tool Description:** The chapter 5 test was used to assess this SLO. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):**	01/03/2012 - Data was collected from one section of the class offered in Fall 2011. Total number of students who took the test in this section is N=5 and 4 students met the criterion of 70%. This translates to approximate 80% (4/5) of the students are able to define key terminology used in the physics field. **Summary of Result Type:**	01/03/2012 - The student who failed to meet the criteria had attendance issues and missed key lecture notes. So, closer monitoring attendance of students are suggested in the future.

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
Start Date: 08/15/2011 **End Date:** 12/09/2011 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** Other **Notes from pull/drop down list above:** This course is conducted as special project courses through the Continuing Education under the apprenticeship program.	75% of the students will earn a 70% or better in the test to pass the course. **Related Documents:** SI141 Test-SLO#1	Criterion Met **Data Collection Status/Summary of Result Status:** Closed **Budget Implications:** No budget impact **Notes:** There were 5 students enrolled and all five of them took the test. The chapter 5 test was used to assess the SLO#1. **Budget Related Performance Indicators:** n/a **Related Documents:** Chapter 5 Test - SI141	
Math & Science Department Courses - SI142 - Applied Physics II - 2011-2012 Catalog SLO#1 - SLO#1 FA-SP: Upon successful completion of this course, students will be able to relate the momentum, impulse, force and time of contact within a system. (Created By Math & Science Department Courses) **Start Date:** 08/16/2011 **End Date:** 03/20/2012 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** This course is a requirement for the Guam Shipyard, an employer under Guam Community College's Apprenticeship Training Program. **Course-level SLO Plan reflects/incorporates:** Other	**Artifact/Instrument/Rubric/Method/Tool Description:** A problem solving type test was administered in class meeting. **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will meet the criteria of 70% or higher.	01/03/2012 - Data was collected from one section of the class offered in Fall 2011. Total number of students who took the test is n=3 and all three of them met the criteria. This translates to 100% (3/3) of the students are able to relate the momentum, impulse, force, and time of contact within a system. **Summary of Result Type:** Criterion Met **Data Collection Status/Summary of Result Status:** Open **Budget Implications:** No budget impact **Notes:** n/a **Budget Related Performance Indicators:** n/a **Related Documents:** Test Paper for SLO#1	01/03/2012 - Increase of the enrollment of the course should be addressed.

Course SLO Description	Means of Assessment & Criteria (Written in %) / Tasks	Data Collection Status/Summary of Results	Use of Summary Result & Implementation Status
Notes from pull/drop down list above: Both SI141 and SI142 were conducted as special project courses through continuing education under the apprenticeship program.			
Math & Science Department Courses - SI150 - Introduction to Microbiology - FA2012-SP2013 Catalog SLO#1 - Upon successful completion of this course, students will be able to summarize the historical events that led to development of the field and the taxonomic classification regarding microbial diversity. (Created By Math & Science Department Courses) **Start Date:** 03/12/2012 **End Date:** 03/08/2013 **Course Outcome Status:** Currently being assessed **Capstone Course/CTE Related Course:** N/A **Type of Industry National Certification:** n/a **Course-level SLO Plan reflects/incorporates:** N/A **Notes from pull/drop down list above:** n/a	**Artifact/Instrument/Rubric/Method/Tool Description:** A gramstain test will be given and a rubics will be used **Type of Artifact/Instrument/Rubric/Method/Tool:** Faculty-developed tests **Criterion (Written in %):** 70% of the students will score 75% and above **Related Documents:** Rubics of Gramstain Test		