

# PLO Assessment Report - 4 Column

## University of Guam

### Program (CNAS) - UG Chemistry

**Mission Statement or Program Description:** To deliver a quality based program with sound chemical knowledge and provide relevant practical applications of chemistry

**When is the next program review due?:** Fall 2012

**Program Assessment Plan created or revised?:** Revised

**When was the last year of program review? :** Fall 2009

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
<p>Program (CNAS) - UG Chemistry - Fundamental Chemical Concepts - Students will be able to demonstrate the knowledge of fundamental concepts of chemistry and its relevance to scientific method and other fields in science</p> <p><b>Year(s) to be Assessed:</b> AY 11-12</p> <p><b>Start Date:</b> 03/02/2012</p> <p><b>End Date:</b> 10/18/2012</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Tool Description:</b> Portfolio evaluation by Communication Rubric</p> <p><b>Assessment Tool:</b> Portfolio Evaluation</p> <p><b>Benchmark:</b> All students score a 4.25 out of 5 on the rubric</p>		
<p>Program (CNAS) - UG Chemistry - Communication skills - Students must demonstrate the ability to clearly articulate, formulate, and communicate scientific information using computer, written, and oral skills</p> <p><b>Year(s) to be Assessed:</b> AY 11-12</p> <p><b>Start Date:</b> 08/29/2011</p> <p><b>End Date:</b> 10/01/2012</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Tool Description:</b> Completed laboratory reports to be assessed using a standard rubric</p> <p><b>Assessment Tool:</b> Portfolio Evaluation</p> <p><b>Benchmark:</b> scoring form the rubric to be above 80%</p>	<p>10/01/2012 - The average score for all the written lab report was 81% for CH103, Spring 2012.</p> <p><b>Result Type:</b> Benchmark Met</p> <p><b>Assessment Year:</b> 2011-2012</p> <p><b>Semester(s) Data Collected:</b> Spring</p> <p><b>Related Documents:</b> <a href="#">Chemistry assessment report</a></p> <p>05/28/2012 - three essays graded: two score above 80% and one at 80%</p> <p><b>Result Type:</b></p>	<p>01/16/2013 - The average was taken from the lab reports scoring. Although this is 81%, a standard rubric was not applied. A rubric needs to be used for the coming cycle</p>

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
		Benchmark Met <b>Assessment Year:</b> 2011-2012 <b>Semester(s) Data Collected:</b> Summer <b>Related Documents:</b> <a href="#">Essay rubric</a> <a href="#">Chem assessment report</a>	
	<b>Assessment Tool Description:</b> Assessment of one laboratory report <b>Assessment Tool:</b> Presentation/Performance <b>Benchmark:</b> More than 90% students to receive more than 90% score	09/30/2012 - 60% of student scored above 90% <b>Result Type:</b> Benchmark Not Met <b>Assessment Year:</b> 2011-2012 <b>Semester(s) Data Collected:</b> Spring <b>Related Documents:</b> <a href="#">Seminar rubric</a>	12/08/2012 - Provide student with the rubric before the presentation  <hr/>
		09/30/2012 - 60% of the students score above 90% <b>Result Type:</b> Benchmark Not Met <b>Assessment Year:</b> 2011-2012 <b>Semester(s) Data Collected:</b> Spring <b>Related Documents:</b> <a href="#">Chemistry Seminar Rubric</a>	
		05/11/2012 - Lab chosen was Redox titration and the average score was 85.4%  <b>Result Type:</b> Benchmark Not Met <b>Assessment Year:</b> 2011-2012 <b>Semester(s) Data Collected:</b> Spring	05/10/2013 - Need to repeat this assessment. Include the grading rubric in the prelab distribution.  <hr/>
	<b>Assessment Tool Description:</b> Chemistry Seminar		

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
	<p><b>Assessment Tool:</b> Presentation/Performance</p> <p><b>Benchmark:</b> Students must score above 90% form the seminar rubrics</p> <hr/> <p><b>Assessment Tool Description:</b> Pre and Post Test for CH102, CH103</p> <p><b>Assessment Tool:</b> Pre/Post Test</p> <p><b>Benchmark:</b> An improvement of 20% above the pre-test</p>	<p>09/30/2012 - An improvement of 7.5% in the pre-post test. This is way below the benchmark</p> <p><b>Result Type:</b> Benchmark Not Met</p> <p><b>Assessment Year:</b> 2011-2012</p> <p><b>Semester(s) Data Collected:</b> Spring</p> <p><b>Related Documents:</b> <a href="#">Chemistry assessment report</a></p>	<p>05/01/2012 - The benchmark to be revised to below 10%</p> <hr/>
<p>Program (CNAS) - UG Chemistry - Critical thinking - Students must demonstrate critical thinking, problem solving skills and the ability to use chemical knowledge and mathematical skills to identify, evaluate, analyze, synthesize, and integrate data and abstract ideas in solving problems</p> <p><b>Year(s) to be Assessed:</b> AY 11-12</p> <p><b>Start Date:</b> 08/15/2011</p> <p><b>End Date:</b> 08/20/2012</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Tool Description:</b> Pre-Post test with 30 multiple choice covering the entire curriculum</p> <p><b>Assessment Tool:</b> Pre/Post Test</p> <p><b>Benchmark:</b> Average Post test score to be 10% better in post test</p>	<p>10/01/2012 - The average for the pretest was 10.25% and Post test was 17.75%</p> <p><b>Result Type:</b> Benchmark Not Met</p> <p><b>Assessment Year:</b> 2011-2012</p> <p><b>Semester(s) Data Collected:</b> Spring</p> <hr/> <p>09/30/2012 - Improvement of 7.5% olbtained</p> <p><b>Result Type:</b> Benchmark Not Met</p> <p><b>Assessment Year:</b> 2011-2012</p> <p><b>Semester(s) Data Collected:</b> Spring</p> <p><b>Related Documents:</b> <a href="#">Pre and Post Test Result</a></p> <hr/> <p>03/23/2012 - Class results show less than 20%</p> <p><b>Result Type:</b> Benchmark Not Met</p> <p><b>Assessment Year:</b> 2011-2012</p>	<p>01/22/2013 - Revise the Test and benchmark</p> <hr/> <p>05/01/2012 - Revise the 20% to 10%</p> <hr/> <p>03/23/2012 - Review the exam and include only relevant sections</p> <hr/>

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
		<b>Semester(s) Data Collected:</b> Fall	
Program (CNAS) - UG Chemistry - Fundamental Chemical Concepts_1 - Students will be able to demonstrate the knowledge of fundamental concepts of chemistry and its relevance to scientific method and other fields in science <b>Year(s) to be Assessed:</b> AY 11-12	<b>Assessment Tool Description:</b> Portfolio evaluation by Communication Rubric <b>Assessment Tool:</b> Portfolio Evaluation <b>Benchmark:</b> All students score a 4.25 out of 5 on the rubric		
<b>Start Date:</b> 03/02/2012 <b>End Date:</b> 10/18/2012 <b>Outcome Status:</b> Active			
Program (CNAS) - UG Chemistry - Fundamental Chemical Concepts_2 - Students will be able to demonstrate the knowledge of fundamental concepts of chemistry and its relevance to scientific method and other fields in science <b>Year(s) to be Assessed:</b> AY 11-12	<b>Assessment Tool Description:</b> Portfolio evaluation by Communication Rubric <b>Assessment Tool:</b> Portfolio Evaluation <b>Benchmark:</b> All students score a 4.25 out of 5 on the rubric		
<b>Start Date:</b> 03/02/2012 <b>End Date:</b> 10/18/2012 <b>Outcome Status:</b> Active			
Program (CNAS) - UG Chemistry - Fundamental Chemical Concepts_3 - Students will be able to demonstrate the knowledge of fundamental concepts of chemistry and its relevance to scientific method and other fields in science <b>Year(s) to be Assessed:</b> AY 11-12	<b>Assessment Tool Description:</b> Portfolio evaluation by Communication Rubric <b>Assessment Tool:</b> Portfolio Evaluation <b>Benchmark:</b> All students score a 4.25 out of 5 on the rubric		
<b>Start Date:</b> 03/02/2012 <b>End Date:</b> 10/18/2012 <b>Outcome Status:</b> Active			

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
<p><b>Start Date:</b> 03/02/2012</p> <p><b>End Date:</b> 10/18/2012</p> <p><b>Outcome Status:</b> Active</p>			

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**When was the last year of program review? :** Fall 2009

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
<p>Program (CNAS) - UG Chemistry - Communication skills - Students must demonstrate the ability to clearly articulate, formulate, and communicate scientific information using computer, written, and oral skills</p> <p><b>Year(s) to be Assessed:</b> AY 12-13</p> <p><b>Start Date:</b> 09/30/2012</p> <p><b>End Date:</b> 09/30/2013</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Tool Description:</b> Assessment of laboratory report using Rubric</p> <p><b>Assessment Tool:</b> Presentation/Performance</p> <p><b>Benchmark:</b> More than 90% students to receive more than 90% score</p>	<p>09/30/2013 - The average achieved was 85.5% which was below the benchmark</p> <p><b>Result Type:</b> Benchmark Not Met</p> <p><b>Assessment Year:</b> 2012-2013</p> <p><b>Semester(s) Data Collected:</b> Throughout the Year</p> <p><b>Related Documents:</b> <a href="#">2012-2013 Assessment Report</a> <a href="#">Lab Report Rubric</a></p>	<p>09/30/2014 - Need to repeat this for at least 4 lab reports and report the averages.</p>
<p>Program (CNAS) - UG Chemistry - Critical thinking - Students must demonstrate critical thinking, problem solving skills and the ability to use chemical knowledge and mathematical skills to identify, evaluate, analyze, synthesize, and integrate data and abstract ideas in solving problems</p> <p><b>Year(s) to be Assessed:</b> AY 12-13</p> <p><b>Start Date:</b> 09/30/2013</p> <p><b>End Date:</b> 09/30/2013</p> <p><b>Outcome Status:</b></p>	<p><b>Assessment Tool Description:</b> Pre-Post test with 30 multiple choice covering the entire curriculum</p> <p><b>Assessment Tool:</b> Pre/Post Test</p> <p><b>Benchmark:</b> Average Post test score to be 10% better in post test</p>	<p>09/30/2013 - An improvement of of 12.9% was achieved. Benchmark was met.</p> <p><b>Result Type:</b> Benchmark Met</p> <p><b>Assessment Year:</b> 2012-2013</p> <p><b>Semester(s) Data Collected:</b> Throughout the Year</p> <p><b>Related Documents:</b> <a href="#">Pre-Post Test Results</a></p>	<p>09/30/2014 - Repeat the Test for the Upcoming semester, Fall 2013 and Spring 2014</p>
<p><b>Outcome Status:</b></p>	<p><b>Assessment Tool Description:</b> Pre and Post Test</p> <p><b>Assessment Tool:</b></p>	<p>09/30/2013 - An 8.7% improvement was achieved.</p> <p>Benchmark not met.</p> <p><b>Result Type:</b></p>	

PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
Active	Pre/Post Test <b>Benchmark:</b> An improvement of 10% in post test	Benchmark Not Met <b>Assessment Year:</b> 2012-2013 <b>Semester(s) Data Collected:</b> Throughout the Year <b>Related Documents:</b> <a href="#">2012-2013 Assessment Report</a>	

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PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
<p>Program (CNAS) - UG Chemistry - Critical thinking - Students must demonstrate critical thinking, problem solving skills and the ability to use chemical knowledge and mathematical skills to identify, evaluate, analyze, synthesize, and integrate data and abstract ideas in solving problems</p> <p><b>Year(s) to be Assessed:</b> AY 13-14</p> <p><b>Start Date:</b> 09/30/2013</p> <p><b>End Date:</b> 09/30/2014</p> <p><b>Outcome Status:</b> Active</p>	<p><b>Assessment Tool Description:</b> Pre and Post Test</p> <p><b>Assessment Tool:</b> Pre/Post Test</p> <p><b>Benchmark:</b> An improvement of 10% in post test</p>	<p>09/30/2014 - CH102 FA2013 showed improvement of 15% - Benchmark was met</p> <p>CH103 SP2014 showed an 8% improvement - Benchmark not met</p> <p><b>Result Type:</b> Benchmark Not Met</p> <p><b>Assessment Year:</b> 2013-2014</p> <p><b>Semester(s) Data Collected:</b> Fall</p> <p><b>Related Documents:</b> <a href="#">Assessment Report 2013-14</a></p>	<p>12/12/2014 - repeat test in F2014 and SP2015</p>
	<p><b>Assessment Tool Description:</b> Insight Assessment tool, California Critical Thinking Skill Test (CCTST) was administered pre- and post-test in CH102 class of Fall 2013</p> <p><b>Assessment Tool:</b> Exam - Standardized</p> <p><b>Benchmark:</b> Want to gauge the level of percentile for this cohort of Chemistry Freshman. Bench mark was to see an overall improvement in all skills tested.</p>	<p>05/16/2014 - There was a small improvement observed for all skills category. However, results was from a pilot and needs to be repeated</p> <p><b>Result Type:</b> Benchmark Met</p> <p><b>Assessment Year:</b> 2013-2014</p> <p><b>Semester(s) Data Collected:</b> Fall</p> <p><b>Related Documents:</b> <a href="#">Chem Assessment Report 2013-14</a></p>	
		<p>09/30/2014 - There was an overall improvement in all skills but only weak</p>	



PLOs	Means of Assessment & Benchmarks / Tasks	Results	Action & Follow-Up
		<p><b>Result Type:</b> Benchmark Met</p> <p><b>Assessment Year:</b> 2013-2014</p> <p><b>Semester(s) Data Collected:</b> Fall</p> <p><b>Related Documents:</b> <a href="#">CCTST_PostTestF13.pdf</a></p>	<p>12/12/2015 - Repeat test in Fall 2015</p> <hr/> <p>09/16/2015 - Needs to be repeated for the same cohort after 3 years</p> <hr/>