

Course Assessment Results aligned to Program SLOs

San Mateo CCCD

CAN Program - Physical Sciences

SLO	Course Outcomes	Means of Assessment & Success Criteria / Tasks	Results	Action & Follow-Up
Use the scientific method and appreciate its importance to the development of scientific thought.	CAN Dept - Earth Science - CAN GEOL 100 - Introduction to Geology - Scientific Method and the Plate Tectonic Theory - Student will demonstrate an understanding of the application of the Scientific Method in the development of the Theory of Plate Tectonics. (Created By CAN Dept - Earth Science)	Assessment Method: Short answer on exam Assessment Method Category: Exam		
	CAN Dept - Earth Science - CAN GEOL 101 - Geology Laboratory - Scientific Method - Students will be able to use the scientific method to analyze and interpret data. (Created By CAN Dept - Earth Science)	Assessment Method: Laboratory exercises Assessment Method Category: Other Success Criterion: > 80% pass course with grade of C or better		
		Assessment Method: Preparation of poster summarizing some aspect of California Geology Success Criterion: Successful preparation and presentation of poster, including at least 3 scientific data sources (not wikipedia), attributing all data to source, and synthesis of data into a coherent discussion of the issue.	12/16/2011 - 26% earned a score of A (>90%) 40% earned a score of B (80-90%) 13% earned a score of C (65 - 70%) 7% earned a score of D (<65%) 2 students did not turn in a poster. Result Type: Criterion not met Reporting Cycle: 2012 - 2013	03/29/2012 - Although poster was assigned at the beginning of the semester, some students did not start the poster until just before it was due. In the future, there will be intermediate due dates (data sources, notes, etc) to help keep students on track. Students will also be given help with accessing geologic data for their topic.
	CAN Dept - Earth Science - CAN OCEN 100 - Oceanography - Seawater Chemistry - Students will use basic ideas of chemistry to describe the	Assessment Method: Essay question on midterm Assessment Method Category: Exam		

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	formation of salts and the differences between the major and minor components of seawater. (Created By CAN Dept - Earth Science)	<p>Success Criterion: > 75% answer question correctly</p>		
	CAN Dept - Earth Science - CAN OCEN 100 - Oceanography - Marine Geology and Plate Tectonics - Students will use an understanding of plate tectonics to explain the formation and evolution of the ocean basins. (Created By CAN Dept - Earth Science)	<p>Assessment Method: Embedded test question</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 75% answer question correctly</p>	<p>04/02/2013 - Students were assessed by a series of exam questions testing their understanding of plate tectonics. 29 out of 39 students (74%) passed the test question with a score of 75% or higher, 32 out of 39 scored 65% or above. This was an improvement over previous years, and may reflect the addition of pre-lecture reading assignments to the post-lecture homework assignment assessments (also still assigned).</p> <p>Result Type: Criterion not met</p> <p>Reporting Cycle: 2012 - 2013</p>	<p>04/02/2013 - Continue with revisions to assignment content.</p> <p>Action Plan Category: Conduct Further Assessment</p>
	CAN Dept - Earth Science - CAN OCEN 100 - Oceanography - Physical Oceanography - Students will demonstrate an understanding of the interaction between the atmosphere and ocean and its implications to the formation of winds, currents, and waves. (Created By CAN Dept - Earth Science)	<p>Assessment Method: Embedded exam question</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: >75% answer question correctly</p>	<p>04/22/2014 - Students were asked "Which of the following statements is true of surface ocean currents? a) Surface currents concentrate warm water in the center of the gyre at mid-latitudes. b) Surface currents form circular patterns in the major ocean basins called "gyres." c) Surface currents occur within and below the pycnocline. d) Surface currents transport cold water toward the poles. e) Surface currents transport warm water toward the equator." The correct answer is b. 77% of students taking the test responded correctly. This is within the defined acceptable range, but barely. I will rewrite the homework assignment and give additional reinforcement during in class activities.</p>	<p>04/22/2014 - Reinforce concept through revised assignments and in class activities.</p> <p>Action Plan Category: Use New or Revised Teaching methods</p>

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			<p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p>	
			<p>12/16/2011 - Students were given a map of surface currents in a hypothetical southern hemisphere ocean and asked to locate the warm water current.</p> <p>67% answered correctly 33% answered incorrectly.</p>	<p>03/29/2012 - Will spend more time explaining why currents follow the observed pattern, include animations. Allow students time to discuss in small groups.</p>

<p>CAN Dept - Earth Science - CAN OCEN 100 - Oceanography - Scientific Method and the Theory of Plate Tectonics - Students will demonstrate an understanding of the application of the Scientific Method to the development of the Theory of Plate Tectonics. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Essay question in exam</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 75% answer question correctly</p>		
<p>CAN Dept - Earth Science - CAN OCEN 100 - Oceanography - Environmental Oceanography - Students will investigate at least one threat to the health of the oceans and its inhabitants. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Poster presentation</p> <p>Assessment Method Category: Presentation/Performance</p> <p>Success Criterion: >80% earn a C or better on poster</p>	<p>05/31/2012 - 38 students</p> <p>42% A or A- 50% B+, B, or B- 8% C+ or C no scores below C</p> <p>Changing the assignment handout, bringing in more samples, and constant reminders of the assignment due date allowed the students to really shine on this assignment.</p>	<p>05/31/2012 - This segment of the course is working well. Students use the scientific method to evaluate research and distill it to salient points which are then presented to the class via a poster. The class as a whole are exposed to many environmental issues related to the marine environment as the posters are presented. Because a portion of their grade is based on their evaluation of other student's work, the majority of the class is engaged and even excited by the information presented.</p>

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			2011 - 2012	Action Plan Category: Conduct Further Assessment
	CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study - Marine Geology and Evolutionn of the Ocean Basins - Students will demonstrate an understanding of plate tectonics and its role in the formation and evolution of the ocean basins. Student will also be able to analyze sediments using standard oceanographic tools and effectively communicate their results. (Created By CAN Dept - Earth Science)	Assessment Method: Laboratory assignment Assessment Method Category: Other Success Criterion: 80% of students compete assignment with a grade of 75% or greater	04/02/2013 - 23 (out of 23) students completed the plate tectonics lab - 22 passed the lab with an A (>90%), and 1 with a B (>80%). 20 out of 22 completed the marine sediment lab, 19 with an A (>90%) and one with an F (< 50%). It is worth noting that the other two students missed the lab because they were ill, and opted to drop this lab (students were allowed to drop their lowest lab from their final score).	Result Type: Criterion met Reporting Cycle: 2012 - 2013
	CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study - Chemical Nature of Seawater - Using standard chemical apparatus, students will be able to determine the salinity of seawater samples and apply this knowledge to an understanding of the chemistry of the world's oceans. (Created By CAN Dept - Earth Science)	Assessment Method: Laobaroty Assignments Assessment Method Category: Other Success Criterion: Greater tha 80% of students complete the assignment with a grade of 75% or better	03/29/2014 - Spring 2014 semester results. Lab results: 29 students completed the lab. 78% with a grade of 90% or better, 22% with a score between 80 - 90%. 2 people did not complete and turn in the assignment.	03/29/2014 - Students are successful at completing the lab assignment. I will continue to refine both the wording of the lab handout and the teaching method to reinforce the relationship between the assigned activities and the information they are designed to reinforce. Additionally, the lab will now require that each student use the equipment and analyze the results, i.e. less group work and more individual activities. This will require the acquisition of more equipment.
				Action Plan Category: Plan purchase of new equipment or supplies

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	<p>CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study</p> <p>Physics of the Ocean - Students will be able to integrate and interpret oceanographic data to investigate real world issues relating to currents, waves, and tides. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Assessed through laboratory assignments</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: 80% or more students complete assignment with a grade of 75% or better</p>	<p>12/22/2013 - Students completed laboratory assignments on the following topics: Water masses, Weather and Atmospheric Convection, Ocean Currents, and Waves and Tides. Of students completing each lab, 100% scored above 80% on the water masses lab, 95% scored 80% or above on the Weather lab, 93⁺ scored 80% or higher on the current lab, and 100% scored over an 80% on the wave lab. Note, 1 - 2 students did not complete each lab (out of 30). An additional test of student mastery of this information is their performance on exam questions. As shown on the attached file</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p> <p>Related Documents: ocean 101 f13 exam results.docx</p> <p>12/23/2012 - Assessed through a series of weekly laboratory assignment write-ups. Of the students completing the lab assignments, 23 out of 23 scored 80% or higher.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2012 - 2013</p>	<p>12/22/2013 - Overall, students seem to be doing well on the laboratory exercises, and this carries through to the test in most areas. The exception is the Atmospheric Circulation (winds) lab. This lab has been revised to help students absorb the information, and the ties between these concepts and the formation of waves and currents updated to reinforce the concepts presented in the wind lab.</p> <p>Action Plan Category: Use New or Revised Teaching methods</p>

CAN Dept - Earth Science - CAN
OCEN 101 - Oceanography Lab/Field

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	Study - Life in The Ocean - Students will demonstrate an understanding of food webs, adaptation, and ecosystems through analysis of living organisms and marine biological data. (Created By CAN Dept - Earth Science)	<p>Assessment Method: Assessed through laboratory assignments and poster report.</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: 80% of students completeing the assignments with a grade of 75% or more.</p>	<p>05/31/2012 - 27 students completed the lab out of 30. One dropped the class past the drop date, and two took incompletes. Of the 27 students who finished, 24 earned an A and 3 earned a B on the Marine Biology lab. Of the 27 students who finished, 14 earned an A , 8 earned a B, and 2 earned a C on the poster assignment.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2011 - 2012</p>	

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Document and communicate their work effectively.	CAN Dept - Earth Science - CAN GEOL 101 - Geology Laboratory - California Geology - Student will use geologic knowledge to explain the tectonic setting and geologic resources of California. (Created By CAN Dept - Earth Science)	<p>Assessment Method: Poster presentation</p> <p>Assessment Method Category: Project</p> <p>Success Criterion: 80% of class earns a C or better</p> <p>Assessment Method: Exam questions regarding the current and historic tectonic settings in CA and the rocks that result. .</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: Success criteria: 70% of the students scoring 70% or higher</p>	<p>04/11/2014 - 60% of students scored 75% or higher. 80% of the students scored 67% or higher. There was no way to tally exactly a 70% score.</p> <p>Result Type: Inconclusive</p> <p>Reporting Cycle: 2013 - 2014</p>	<p>04/11/2014 - Alter question and/or scoringn of question to assess at 70%. Also consider using a different assessment method, perhaps a lab assignment pertaining to CA geology.</p> <p>Action Plan Category: Develop new evaluation methods</p>

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	<p>CAN Dept - Earth Science - CAN OCEN 100 - Oceanography</p> <p>- Marine Biology - Students will apply the concepts of food webs, adaptation, and communities to the marine ecosystem. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Essay question in exam.</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: >75% answer correctly.</p>	<p>02/22/2013 - Fall 2013 semester results based on embedded test question.</p> <p>Which of the following organism - tropic level pairs are correct? a) kelp - decomposer b) fish - decomposer c) squid - consumer. 26 out of 32 answered correctly (81%), 6 out of 32 did not answer correctly (19%).</p> <p>Criterion met.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p>	<p>03/29/2014 - Criterion were met, no changes will be made at this time.</p> <p>Action Plan Category: Conduct Further Assessment</p>
			<p>12/22/2012 - Students were assessed by responding to a series of questions analyzing a diagram of a simplified food web for the Monterey Bay Ecosystem. Of the 34 students completing the test, 83 % earned a passing grade on these questions.</p>	<p>12/22/2012 - Things seem to be going well. I will continue the present methodology, and re-evaluate next semester.</p> <p>Action Plan Category: Conduct Further Assessment</p>
	<p>CAN Dept - Earth Science - CAN OCEN 100 - Oceanography</p> <p>- Environmental Oceanography - Students will investigate at least one threat to the health of the oceans and its inhabitants. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Poster presentation</p> <p>Assessment Method Category: Presentation/Performance</p> <p>Success Criterion: >80% earn a C or better on poster</p>	<p>05/31/2012 - 38 students</p> <p>42% A or A- 50% B+, B, or B- 8% C+ or C no scores below C</p> <p>Changing the assignment handout, bringing in more samples, and constant reminders of the assignment due date allowed the students to really shine on this assignment.</p> <p>Result Type:</p>	<p>05/31/2012 - This segment of the course is working well. Students use the scientific method to evaluate research and distill it to salient points which are then presented to the class via a poster. The class as a whole are exposed to many environmental issues related to the marine environment as the posters are presented. Because a portion of their grade is based on their evaluation of other student's work, the majority of the class is engaged and even excited by</p>

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			<p>Criterion met</p> <p>Reporting Cycle: 2011 - 2012</p>	<p>the information presented.</p> <p>Action Plan Category: Conduct Further Assessment</p>
	<p>CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study - Life in The Ocean - Students will demonstrate an understanding of food webs, adaptation, and ecosystems through analysis of living organisms and marine biological data. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Assessed through laboratory assignments and poster report.</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: 80% of students completing the assignments with a grade of 75% or more.</p>	<p>05/31/2012 - 27 students completed the lab out of 30. One dropped the class past the drop date, and two took incompletes. Of the 27 students who finished, 24 earned an A and 3 earned a B on the Marine Biology lab. Of the 27 students who finished, 14 earned an A, 8 earned a B, and 2 earned a C on the poster assignment.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2011 - 2012</p>	

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Demonstrate critical thinking to analyze physical systems in terms of scientific concepts.	<p>CAN Dept - Earth Science - CAN GEOL 100 - Introduction to Geology - Application of the Plate Tectonic Theory to Understanding Geologic Phenomena - Student will use the Theory of Plate Tectonics to explain the cause of geologic phenomena such as earthquakes, volcanoes, and mountain building. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Embedded question in exam.</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 70% answer question correctly.</p>	<p>04/11/2014 - Final Exam Fall 2013: Students were asked use plate tectonic theory to explain the geology of the Sierras and the Cascades. Specifically, students were asked to compare and contrast the 2 mountain ranges, noting the tectonic settings, plates involved, structures involved, and specific rocks present. 37% of the class earned 100% on the question. 68% of the class earned 75% or better on the question. 72% of the class earned 69% or better on the question. We wanted 70% of the students to score 70% or better, so we</p>	<p>04/11/2014 - Review the importance of plate tectonic theory again at the end of the course (e.g. final class period). The final exam was used in this assessment, though the last unit of the course (surface processes) does not stress plate tectonic theory as much as the other units. Thus, some sort of structured review at the end of the course may help the students tie everything together.</p> <p>Action Plan Category:</p>

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			<p>didn't quite meet the criteria, but we were very close. 1 more student needed to earn 1/4 more points. The question chosen for the assessment was quite demanding.</p> <p>Result Type: Criterion not met</p> <p>Reporting Cycle: 2013 - 2014</p>	<p>Other _____</p>
	<p>CAN Dept - Earth Science - CAN GEOL 100 - Introduction to Geology - The hydrologic cycle and its effect on Earth's surface - Student will apply the concept of the hydrologic cycle to explain the evolution of the present landscape through the work of moving water, landslids, glaciers, and wind.</p> <p>(Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Embedded test questions</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 70% provide the correct answer to question.</p>	<p>08/02/2013 - Summer 2014 results. Note, sample size was small - 9 students total.</p> <p>Two test short answer questions:</p> <p>Question 1 "Describe and/or draw an artesian well and the conditions that are required to produce artesian flow. What can happen to an artesian system and the ground above it if too many wells are drilled?" 4 students (44%) scored 100 %, 4 students (44%) scored 80%, 1 student (11%) scored 40%. Criterion met.</p> <p>Question 2: Students were given a photograph of a meandering stream system and asked to identify an oxbow lake. "What is the name of the feature pointed out on the photograph to the right? Explain how and why the feature formed." 8 students 89% scored 100 %, 1 student (11%) scored 60%. Criterion met.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p>	<p>08/02/2013 - Criterion is met, although the small sample size makes statistics somewhat tenuous. No further actions are planned at this time.</p> <p>Action Plan Category: Conduct Further Assessment</p>

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	<p>CAN Dept - Earth Science - CAN GEOL 100 - Introduction to Geology - Minerals and the Rock Cycle - Students will demonstrate an understanding of the formation of common rocks and minerals, their relationship to geologic phenomena, and how they change as their environment changes. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Embedded question on exam.</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 70% answer correctly</p>	<p>04/25/2013 - Fall 2012- 2 sections: Students were asked to draw the rock cycle on the final exam demonstrating their knowledge of how rocks form and change over time. 89% of the students who finished the class earned an C or higher (70%) on the rock cycle question. 10 students had stopped attending the class and did not take the exam, but they did not drop the class. These students were not included in the analysis.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2012 - 2013</p>	
	<p>CAN Dept - Earth Science - CAN GEOL 100 - Introduction to Geology - Geologic Time - Students will use standard geologic principles to determine the geologic history of a simple geologic cross-section. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Test question</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: > 80% answer successfully</p>	<p>12/16/2011 - Students were given a simple geologic cross section and instructed to write a short summary of the geologic history implied, including a discussion of the principles used to determine the correct order of geologic events.</p> <p>Of 40 students tested:</p> <ul style="list-style-type: none"> 9 or 23% scored 90% correct 10 or 25% scored 80-90% 10 or 25% scored 70 80% 6 or 15% scored 60 - 70% 5 or 13% scored less than 60% on this test question. <p>72% answered successfully.</p> <p>Result Type: Criterion not met</p> <p>Reporting Cycle: 2012 - 2013</p>	

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	<p>CAN Dept - Earth Science - CAN GEOL 101 - Geology Laboratory - identification of rocks and minerals - Using an identification key, handlens, hardness samples, and acid, students will be able to identify and determine the probable mode of origin of common rocks and minerals. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Rock and Mineral identification test</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 70% C or better</p>	<p>04/25/2013 - All Fall 2012 GEOL 101 students completed the rock identification exam. 57% passed the exam with an A (>90%), 14% passed with a B (>80%) and 14% passed with a C (>70%). 14% of the student failed the exam (<60%). In summary 86% of the class earned a C or better.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2012 - 2013</p>	
	<p>CAN Dept - Earth Science - CAN GEOL 101 - Geology Laboratory - Map Skills - Students will be able to use topographic and geologic maps to solve geologic problems (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Laboratory Exercises</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: > 70% pass mapping laboratory exercises with C or better.</p>	<p>08/02/2013 - Summer 2014 session. Note sample size is extremely small, with only 6 students completing the course.</p> <p>Students were asked to use topographic maps of various locations (Alaska, Mt. Rainer, Montana, Nebraska) to locate and analyze features related to mountain and valley glaciation. 4 students scored 100%, 1 scored 80%, and 1 did not complete the lab.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p>	<p>08/02/2013 - Criteria were met. No changes are anticipated at this time.</p> <p>Action Plan Category: Conduct Further Assessment</p>
	<p>CAN Dept - Earth Science - CAN GEOL 101 - Geology Laboratory - Scientific Method - Students will be able to use the scientific method to analyze and interpret data. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Laboratory exercises</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: > 80% pass course with grade of C or better</p>		

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		<p>Assessment Method: Preparation of poster summarizing some aspect of California Geology</p> <p>Success Criterion: Successful preparation and presentation of poster, including at least 3 scientific data sources (not wikipedia), attributing all data to source, and synthesis of data into a coherent discussion of the issue.</p>	<p>12/16/2011 - 26% earned a score of A (>90%) 40% earned a score of B (80-90%) 13% earned a score of C (65 - 70%) 7% earned a score of D (<65%) 2 students did not turn in a poster.</p> <p>Result Type: Criterion not met</p> <p>Reporting Cycle: 2012 - 2013</p>	<p>03/29/2012 - Although poster was assigned at the beginning of the semester, some students did not start the poster until just before it was due. In the future, there will be intermediate due dates (data sources, notes, etc) to help keep students on track. Students will also be given help with accessing geologic data for their topic.</p>
	<p>CAN Dept - Earth Science - CAN OCEN 100 - Oceanography</p> <p>- Seawater Chemistry - Students will use basic ideas of chemistry to describe the formation of salts and the differences between the major and minor components of seawater. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Essay question on midterm</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 75% answer question correctly</p>		
	<p>CAN Dept - Earth Science - CAN OCEN 100 - Oceanography</p> <p>- Marine Geology and Plate Tectonics - Students will use an understanding of plate tectonics to explain the formation and evolution of the ocean basins. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Embedded test question</p> <p>Assessment Method Category: Exam</p> <p>Success Criterion: > 75% answer question correctly</p>	<p>04/02/2013 - Students were assessed by a series of exam questions testing their understanding of plate tectonics. 29 out of 39 students (74%) passed the test question with a score of 75% or higher, 32 out of 39 scored 65% or above. This was an improvement over previous years, and may reflect the addition of pre-lecture reading assignments to the post-lecture homework assignments (also still assigned).</p> <p>Result Type: Criterion not met</p> <p>Reporting Cycle:</p>	<p>04/02/2013 - Continue with revisions to assignment content.</p> <p>Action Plan Category: Conduct Further Assessment</p>

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			12/16/2011 - Students were given a map of surface currents in a hypothetical southern hemisphere ocean and asked to locate the warm water current. 67% answered correctly 33% answered incorrectly.	03/29/2012 - Will spend more time explaining why currents follow the observed pattern, include animations. Allow students time to discuss in small groups.
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SLO	Course Outcomes	Means of Assessment & Success Criteria / Tasks	Results	Action & Follow-Up
			<p>Criterion met</p> <p>Reporting Cycle: 2011 - 2012</p>	<p>the information presented.</p> <p>Action Plan Category: Conduct Further Assessment</p>
	<p>CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study -</p> <p>Marine Geology and Evolution of the Ocean Basins - Students will demonstrate an understanding of plate tectonics and its role in the formation and evolution of the ocean basins. Student will also be able to analyze sediments using standard oceanographic tools and effectively communicate their results. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Laboratory assignment</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: 80% of students complete assignment with a grade of 75% or greater</p>	<p>04/02/2013 - 23 (out of 23) students completed the plate tectonics lab - 22 passed the lab with an A (>90%), and 1 with a B (>80%). 20 out of 22 completed the marine sediment lab, 19 with an A (>90%) and one with an F (< 50%). It is worth noting that the other two students missed the lab because they were ill, and opted to drop this lab (students were allowed to drop their lowest lab from their final score).</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2012 - 2013</p>	
	<p>CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study -</p> <p>Chemical Nature of Seawater - Using standard chemical apparatus, students will be able to determine the salinity of seawater samples and apply this knowledge to an understanding of the chemistry of the world's oceans. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Laobaroty Assignments</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: Greater than 80% of students complete the assignment with a grade of 75% or better</p>	<p>03/29/2014 - Spring 2014 semester results.</p> <p>Lab results: 29 students completed the lab. 78% with a grade of 90% or better, 22% with a score between 80 - 90%. 2 people did not complete and turn in the assignment.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p>	<p>03/29/2014 - Students are successful at completing the lab assignment. I will continue to refine both the wording of the lab handout and the teaching method to reinforce the relationship between the assigned activities and the information they are designed to reinforce. Additionally, the lab will now require that each student use the equipment and analyze the results, i.e. less group work and more individual activities. This will require the acquisition of more equipment.</p>

SLO	Course Outcomes	Means of Assessment & Success Criteria / Tasks	Results	Action & Follow-Up
	<p>CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study</p> <p>Physics of the Ocean - Students will be able to integrate and interpret oceanographic data to investigate real world issues relating to currents, waves, and tides. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Assessed through laboratory assignments</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: 80% or more students complete assignment with a grade of 75% or better</p>	<p>12/22/2013 - Students completed laboratory assignments on the following topics: Water masses, Weather and Atmospheric Convection, Ocean Currents, and Waves and Tides. Of students completing each lab, 100% scored above 80% on the water masses lab, 95% scored 80% or above on the Weather lab, 93[^] scored 80% or higher on the current lab, and 100% scored over an 80% on the wave lab. Note, 1 - 2 students did not complete each lab (out of 30). An additional test of student mastery of this information is their performance on exam questions. As shown on the attached file</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2013 - 2014</p> <p>Related Documents: ocean 101 f13 exam results.docx</p> <p>12/23/2012 - Assessed through a series of weekly laboratory assignment write-ups. Of the students completing the lab assignments, 23 out of 23 scored 80% or higher.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2012 - 2013</p>	<p>Action Plan Category: Plan purchase of new equipment or supplies</p> <p>12/22/2013 - Overall, students seem to be doing well on the laboratory exercises, and this carries through to the test in most areas. The exception is the Atmospheric Circulation (winds) lab. This lab has been revised to help students absorb the information, and the ties between these concepts and the formation of waves and currents updated to reinforce the concepts presented in the wind lab.</p> <p>Action Plan Category: Use New or Revised Teaching methods</p>

SLO	Course Outcomes	Means of Assessment & Success Criteria / Tasks	Results	Action & Follow-Up
	<p>CAN Dept - Earth Science - CAN OCEN 101 - Oceanography Lab/Field Study - Life in The Ocean - Students will demonstrate an understanding of food webs, adaptation, and ecosystems through analysis of living organisms and marine biological data. (Created By CAN Dept - Earth Science)</p>	<p>Assessment Method: Assessed through laboratory assignments and poster report.</p> <p>Assessment Method Category: Other</p> <p>Success Criterion: 80% of students completeing the assignments with a grade of 75% or more.</p>	<p>05/31/2012 - 27 students completed the lab out of 30. One dropped the class past the drop date, and two took incompletes. Of the 27 students who finished, 24 earned an A and 3 earned a B on the Marine Biology lab. Of the 27 students who finished, 14 earned an A , 8 earned a B, and 2 earned a C on the poster assignment.</p> <p>Result Type: Criterion met</p> <p>Reporting Cycle: 2011 - 2012</p>	