

CENTRAL NEW MEXICO COMMUNITY COLLEGE
ASSESSMENT REPORT
Due to SAAC by October 15

PART 1: CONTACT & PROGRAM IDENTIFICATION

Report Year and Contact Information:			
<u>2015-2016</u> Academic Year	<u>Scott Whitlock</u> Contact Person	<u>wwhitlock1@cnm.edu</u> Email	<u>224-4000 #52989</u> Phone Number

Subject of this Assessment Report:		
Program: _____ <input type="checkbox"/> Certificate <input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS	Gen Ed Area: <u>Lab Science: Geography (Physical Lecture)</u> Applicable to: <input type="checkbox"/> AA/AS <input type="checkbox"/> AAS	Discipline Area: _____

PART 2: EVIDENCE OF OVERALL PROGRAM EFFECTIVENESS

Summary of Program Successes:
Course Completion

Description and Evaluation of Recent Changes Made in Support of Student Learning:
N/A

PART 3: REPORT ON RECENT ASSESSMENT OF STUDENT LEARNING

Student Learning Outcome(s) Assessed: <small>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</small>	Classes/Cohorts Assessed:
Relate science to personal, social or global impact	Geography 1101: Physical Geography Lecture

Measurement Tool(s) Used:	Enter X's for type of tool				Initial Achievement Target or Expectation: BASELINE
	Internal X	External	Direct X	Indirect	
Common exam questions on plate tectonics – direct/internal					
<i>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</i>					

Assessment Findings:
<p>1) If you travel away from a midocean ridge you will find _____.</p> <p>A) increasingly older rocks B) increasingly younger rocks C) the seafloor is drifting opposite to your direction of motion D) more and more earthquakes E) little evidence of paleomagnetic reversals of the poles</p> <p>2014-2015 Average Fall and Spring: 75% 2015-2016 Average Fall and Spring: 84%</p>
<p>F) 2) Research since the 1970s has identified the cause of plate tectonics to be _____.</p> <p>A) diastrophism B) convection C) sun spots D) warping E) uniformitarianism</p> <p>2014-2015 Average Fall and Spring: 76% 2015-2016 Average Fall and Spring: 85%</p>
<p>3) The Himalayas were formed by crumpling of plate edges in a _____ zone.</p> <p>A) transcurrent B) divergent C) convergent D) rift E) basalt</p> <p>2014-2015 Average Fall and Spring: 84% 2015-2016 Average Fall and Spring: 87%</p>

Analysis and Interpretation of Assessment Findings:

Averages of all questions increased year over year, suggesting that 2014-2015 Action Plan was successful. .

Action Plan in Support of Student Learning:

N/A New cycle next year using new NMHEAR standards.

Recommendations, Proposals, and/or Funding Requests:

No recommendations.

PART 4: EMBEDDED OUTCOMES**Critical Thinking and Life Skills/Teamwork Development within Programs:**

- a) Please describe how Critical Thinking assessment is embedded within your program assessment.
- b) Please describe how Life Skills/Teamwork assessment is embedded within your program assessment.

a) N/A

b) N/A

PART 5: ASSESSMENT CYCLE PLAN (Copy and paste from original plan if unchanged)

Cycle Years:	Plan Description:
2013-2018	Plan is for continued assessment

Student Learning Outcomes:	When Measured:	Where Measured:	How Measured:
1. Employ critical thinking skills to judge the validity of information from a scientific perspective.	2015-2017	1101	Common Exam Questions. Direct/Internal
2. Apply the scientific method to formulate questions, analyze information/data and draw conclusions.	2016-2018	1192	Lab report – direct/internal
3. Properly operate laboratory equipment to collect relevant and quality data.	2013-2015	1192	Assignment or quiz questions on calculating map scale – direct/internal

4. Utilize mathematical techniques to evaluate and solve scientific problems.	2013-2015	1192	Assignment or quiz questions on calculating map scale – direct/internal
5. Communicate effectively about scientific ideas and topics, in both oral and written formats.	2016-2018	1192	Short written assignment on hurricanes and current events followed by discussion or essay questions on exam – direct/internal
6. Relate science to personal, social or global impact.	2013-2015	1101	Common exam questions on plate tectonics – direct/internal

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ASSESSMENT REPORT
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Report Year and Contact Information:			
<u>2015-2016</u>	<u>Scott Whitlock</u>	<u>wwhitlock1@cnm.edu</u>	<u>224-4000 x 52989</u>
Academic Year	Contact Person	Email	Phone Number

Subject of this Assessment Report:		
Program: _____ <input type="checkbox"/> Certificate <input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS	Gen Ed Area: <u>Physical Lab Science: Geography (Physical, Lab)</u> Applicable to: <input checked="" type="checkbox"/> AA/AS <input type="checkbox"/> AAS	Discipline Area: _____

PART 2: EVIDENCE OF ACHIEVEMENT OF PROGRAM OUTCOMES

Summary of Program Success in Achieving Desired Outcomes:
Course Completion

Description and Evaluation of Recent Changes Made in Support of Student Learning:
N/A

PART 3: REPORT ON RECENT ASSESSMENT OF STUDENT LEARNING PROCESSES

Learning Outcome(s)/Exit Competencies Assessed:	Classes/Cohorts Assessed:
<i>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</i> Utilize mathematical techniques to evaluate and solve scientific problems.	Geography 1192: Physical Geography Lab

Measurement Tool(s) Used:	Enter X's for type of tool				Initial Achievement Target or Expectation:
	Internal	External	Direct	Indirect	
<i>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</i>					
Assignment or quiz questions on calculating map scale – direct/internal. Two (2) common word-problem measurement questions given in all sections	X		X		Baseline

Assessment Results/Findings:
<p>1. Which of the following is not considered part of the scientific method?</p> <p>A. Observation</p> <p>*B. Formation of a Theory</p> <p>C. Gathering Data</p> <p>D. Formation of a Hypothesis</p> <p>2015-2016 Average: 80%</p>
<p>2. Which of the following best describes a theory in science?</p> <p>A. A theory is just an educated guess and is easily discounted.</p> <p>B. A theory does not have to be changed if new evidence is discovered that contradicts it.</p> <p>*C. A theory has some sort of explanatory function that takes into account existing tested data.</p> <p>D. A theory and a hypothesis are the same thing in science.</p> <p>2015-2016 Average: 79%</p>
<p>3. Why would you use a sling psychrometer?</p> <p>A. To measure the specific humidity in the air.</p> <p>B. To measure the absolute humidity in the air.</p> <p>C. To only measure the temperature of the air.</p> <p>*D. To measure the relative humidity of the air.</p> <p>2015-2016 Average: 84%</p>

4. Which of the following temperatures on a sling psychrometer correlate with air temperature?

*A. The dry bulb temp.

B. The wet bulb temp.

2015-2016 Average: 79%

Average was taken of all classes in both Fall and Spring, and these values were averaged again.

Analysis and Interpretation of Assessment Results/Findings:

Students scored above average on all questions. However there is definitely room for improvement in both standards, especially in teaching the scientific method and the use of a sling psychrometer.

Action Plan in Support of Student Learning:

Scientific method should be emphasized, especially the difference between a theory and a hypothesis. When teaching sling psychrometer and relative humidity, more emphasis should be placed on how the interpretation of student data and how it relates to the larger concept of relative humidity.

Recommendations, Proposals, and/or Funding Requests:

PART 4: EMBEDDED OUTCOMES

Critical Thinking and Life Skills/Teamwork Development within Programs:

- a) Please describe how Critical Thinking assessment is embedded within your program assessment.
- b) Please describe how Life Skills/Teamwork assessment is embedded within your program assessment.

a) N/A

b) N/A

PART 5: ASSESSMENT CYCLE PLAN (Copy and paste from original plan if unchanged)

Plan Description:

Plan is same for continued assessment.

Student Learning Outcomes/Exit Competencies:	When Measured:	Where Measured:	How Measured:
1. Employ critical thinking skills to judge the validity of information from a scientific perspective.	2015-2017	1101	Common exam questions on validity of information – direct/internal
2. Apply the scientific method to formulate questions, analyze information/data and draw conclusions.	2016-2018	1192	Lab report – direct/internal
3. Properly operate laboratory equipment to collect relevant and quality data.	2015-2017	1192	Assignment to determine relative humidity using sling psychrometer –direct/internal
4. Utilize mathematical techniques to evaluate and solve scientific problems.	2013-2015	1192	Assignment or quiz questions on calculating map scale – direct/internal
5. Communicate effectively about scientific ideas and topics, in both oral and written formats.	2016-2018	1101	Short written assignment on hurricanes and current events followed by discussion or essay questions on exam – direct/internal
6. Relate science to personal, social or global impact.	2013-2015	1101	Common exam questions on plate tectonics – direct/internal