

Core Competencies Assessment 2007-2008: Area III Courses

New Mexico Institution Name

Laboratory Science Competencies, cont.

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name Geology 151 & 151L	<u>Assessment Results</u>		<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/Priorities
		2007	2008		
presentation techniques.)	critically evaluated as to material and content accuracy				
4. Students will apply quantitative analysis to scientific problems. Students should: a. Select and perform appropriate quantitative analyses of scientific observations. b. Show familiarity with the metric system, use a calculator to perform appropriate mathematical operations, and present results in tables and graphs.	1. Work with map scale and the change of map scale in map interpretation.	62%	80%	Scores good, students were able to interpret the maps and the scale of the drawing, also with stream gradient analysis and map interpretation.	
	2. Work with stream gradient and stream gradient analysis in map interpretation. Suggest stream divide gradient interpretation	82%	79%		
	3. Calculate absolute age relationships on the basis of isotope ratios and radioactive accumulation clock information.		82%		
	4. Work with, and calculate slope information for land form analysis.	86%	83%		
	5. Calculate time-distance calculations for the investigation of earthquake seismograph distance.		76%		
5. Students will apply scientific thinking to real world problems. Students should: a. Critically evaluate scientific reports or accounts presented in the popular media. b. Understand the basic scientific facts related to important contemporary issues (e.g., global warming, stem cell research, cosmology), and ask informed questions about those issues.	1. Analyze stream gradients to forecast areas of stream piracy and capture.	82%	79%	Students scores are good, demonstrating their understanding of steam gradients and history of ground water and seismograph data.	
	2. Study case histories of ground water flow to anticipate and investigate possible sources of pollution for water wells and streams.	84%	87%		
	3. Study earthquake seismograph records to locate earthquake movements and focus distance. Use triangulation to locate earthquake focus.		76%		

Area III Assessment completed by

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