

## Core Competencies Assessment 2008-2009: Area I Courses

New Mexico Institution Name: UNM Taos

Communications Competencies

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name and NMCCN (Process/Instrument named or described – rubric attached)	<u>Assessment Results</u>	<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/Priorities
<p><b>1. Students will analyze and evaluate oral and written communication in terms of situation, audience, purpose, aesthetics, and diverse points of view.</b>                      Students should:                      Understand, appreciate, and critically evaluate a variety of written and spoken messages in order to make informed decisions.</p> <p><b>2. Students will express a primary purpose in a compelling statement and order supporting points logically and convincingly.</b>                      Students should:                      Organize their thinking to express their viewpoints clearly, concisely, and effectively.</p> <p><b>3. Students will use effective rhetorical strategies to persuade, inform, and engage.</b>                      Students should:                      Select and use the best means to deliver a particular message to a particular audience. Rhetorical strategies include but are not limited to modes (such as narration, description, and persuasion), genres (essays, web pages, reports, proposals), media and technology (PowerPoint™, electronic writing), and graphics (charts, diagrams, formats).</p>	<p>Engl 101 Composition 1 (ENGL 1113)</p> <p><b>Reading and Analysis.</b> Students will summarize, interpret, evaluate, and synthesize a variety of challenging texts, including their own and those of their fellow students.</p> <p><b>Problem Posing.</b> Students will identify a central issue or question to address in their writing, and they will develop hypotheses, consider perspectives, and propose solutions that respond to this issue/question.</p> <p><b>Writing Decisions and Strategies.</b> Students will respond to a variety of writing situations by choosing and employing strategies (genre, tone, style, content, organization, etc.) that are appropriate to the student's purpose and to the audience.</p> <p><b>Revision.</b> Students will revise their writing by reconsidering and</p>			

<p><b>4. Students will employ writing and/or speaking processes such as planning, collaborating, organizing, composing, revising, and editing to create presentations using correct diction, syntax, grammar, and mechanics.</b>  Students should:  Use standard processes for generating documents or oral presentations independently and in groups.</p> <p><b>5. Students will integrate research correctly and ethically from credible sources to support the primary purpose of a communication.</b>  Students should:  Gather legitimate information to support ideas without plagiarizing, misinforming or distorting.</p> <p><b>6. Students will engage in reasoned civic discourse while recognizing the distinctions among opinions, facts, and inferences.</b>  Students should:  Negotiate civilly with others to accomplish goals and to function as responsible citizens.  End -- Area I</p>	<p>significantly reworking their ideas, conclusions, and writing decisions.</p> <p><b>Clarity and Surface Features.</b> Students will write prose that is clear and free of errors in syntax, grammar, conclusions, and writing decisions.</p> <p><b>Argument and Analysis.</b> Students will understand and use an academic model of argumentation to analyze a variety of arguments, including their own.</p> <p><b>Focus and Development.</b> Students will articulate a central point or “thesis” and develop that point throughout the essay.</p> <p><b>Research.</b> Students will conduct and document research, evaluate sources, and integrate findings to support their argument.</p> <p>Engl 102 Composition II (ENGL 1123)</p> <p><b>Argument and Analysis.</b> Students will understand and use an academic model of argumentation to analyze a variety of arguments, including their own.</p> <p><b>Focus and Development.</b> Students will articulate a central point or “thesis” and</p>	<p><a href="#">UNM Taos has started the process of portfolio reviews for English 102, which could be considered the capstone course for English 101. Please see the attached matrix for English 101 &amp; 102 which will state the number of students that started and the number of completers for the sequences.</a></p>		
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develop that point throughout their essay.

**Research.** Students will conduct and document research, evaluate sources, and integrate findings to support their argument.

C&J 130 Public Speaking (COMM1113)

Engl 219 Technical Writing (ENGL 2113) **Understand Rhetorical Principles.** Students should be able to produce professional documents that clearly recognize purpose, context, and audience.

**Research Methods.** Students should know how to evaluate the quality and validity of courses and apply appropriate citation methods for text and graphs.

**Document Production.** Students should be able to develop overall concept design, readable layout and format through the effective application of software mechanics.

**Ethical Conduct.** Students should learn how to avoid plagiarism and copyright

	<p>infringement in the production of documents and generally to work in a way that does not harm others.</p> <p><b>Collaboration.</b> Professional writing requires collaborative techniques in problem solving, distribution of work, and the sharing of information and ideas.</p> <p><b>Professionalism.</b> Technical writers need to demonstrate effective skills in verbal communication that include clarity, correct grammar and mechanics, organizing information into a logical structure, employing appropriate and consistent tone and style, and professional-level revision, editing, and proof-reading.</p>			
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Area I Assessment completed by \_\_\_\_\_

*Signature*

**Robert Arellano** \_\_\_\_\_

*Printed Name*

**October 27, 2009** \_\_\_\_\_

*Date*

Phone number 575-737-6224

	ENGL 101 - Comp I					ENGL 102 - Comp II				
	Start	# Completed	% Completed	# Completed C or Better	% Completed C or Better	Start	# Completed	% Completed	# Completed C or Better	% Completed C or Better
Fall 2008	96	89	92.71%	75	78.13%	68	59	86.76%	44	64.71%
Spring 2009	77	73	94.81%	58	75.32%	80	77	96.25%	59	73.75%
Summer 2009	21	21	100.00%	17	80.95%	9	9	100.00%	8	88.89%

## Core Competencies Assessment 2008-2009: Area II Courses

New Mexico Institution Name: UNM Taos

Mathematics – Algebra Competencies

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name and NMCCN (Process/Instrument named or described – rubric attached)	<u>Assessment Results</u>	<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/ Priorities
<p><b>1. Students will graph functions</b>                      Students should:</p> <p>a. Sketch the graphs of linear, higher-order polynomial, rational, absolute value, exponential, logarithmic, and radical functions.</p> <p>b. Sketch a graph using point plotting and analysis techniques, including basic transformations of functions such as horizontal and vertical shifts, reflections, stretches, and compressions.</p> <p>c. Determine the vertex, axis of symmetry, maximum or minimum, and intercepts of a quadratic equation.</p>	<p>Math 121 College Algebra (MATH 1113)</p> <p><u>Course Objectives:</u>                      Students will apply math concepts to develop skills in Mathematic communications, which includes learning to read and write mathematics</p> <p>1.</p>	<p>Fall 2008:                      96% of the students that started the class completed it. 83% of those students performed adequate or better on all competencies.</p> <p>Spring 2009:                      95% of the students that started the class completed it. 86% of those students performed adequate or better on all competencies.</p>		<p>UNM Taos has started to include Student-Learning Outcomes in our IDEA teacher/student evaluation forms. We understand that it is an indirect measure but we are acquiring qualitative analysis in order to make improvements to programs and courses. The link below is an example of the data that we have received from Math 121.  <a href="#">(IDEA.Math.120&amp;121.pdf)</a></p>
<p><b>2. Students will solve various kinds of equations.</b>                      Students should:</p> <p>a. Solve quadratic equations using factoring, completing the squares, the square root method, and quadratic formula.</p> <p>b. Solve exponential and logarithmic equations.</p> <p>c. Solve systems of two or three linear equations.</p> <p style="text-align: center;">(Continued)</p>	<p>Math 121 College Algebra (MATH 1113)</p>	<p>Summer 2009:                      100% of the students that started the class completed it. 100% of those students performed adequate or better on all competencies.</p>		<p><a href="#">The link below shows the number starters and completers in the Math 121, Math 161 Calculus I, Math 163 Calculus II, Math 180 Elements of Calculus I and Math 181 Elements of Calculus II from the fall 2008 to summer 2009</a></p>

## Core Competencies Assessment 2008-2009: Area II Courses

**New Mexico Institution Name: UNM Taos**

**Mathematics – Algebra Competencies, cont.**

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name and NMCCN (Process/Instrument named or described – rubric attached)	<u>Assessment Results</u>	<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/ Priorities
<p><b>3. Students will demonstrate the use of function notation and perform operations on functions.</b> Students should:</p> <ul style="list-style-type: none"> <li>a. Find the value of a function for a given domain value</li> <li>b. Add, subtract, multiply, divide and compose functions.</li> <li>c. Determine the inverse of a function.</li> <li>d. Compute the difference quotient for a function.</li> <li>e. Correctly use function notation and vocabulary related to functions, i.e. domain, range, independent variable, of, even symmetry, etc.</li> </ul>	<p>Math 121 College Algebra (MATH 1113)</p>			
<p><b>4. Students will model/solve real-world problems.</b> Students should:</p> <ul style="list-style-type: none"> <li>a. Use and understand slope as a rate of change.</li> <li>b. Use equations and systems of equations to solve application problems.</li> <li>c. Apply knowledge of functions to solve specific application problems.</li> <li>d. Solve compound interest problems.</li> <li>e. Solve application problems involving maximization or minimization of a quadratic function.</li> <li>f. Solve exponential growth and decay problems.</li> </ul> <p>End – Area II - Algebra</p>	<p>Math 121 College Algebra (MATH 1113)</p>			

Area II-Algebra Assessment completed by \_\_\_\_\_

*Signature*

**Richard Niemeier**

*Printed Name*

**October 27, 2009**

*Date*

Phone number 575-737-6224

To learn more, see the Interpretive Guide: [www.theideacenter.org/shortguide.pdf](http://www.theideacenter.org/shortguide.pdf)

There were **42** students enrolled in the course and **36** students responded. Your results are considered **reliable**. The **86%** response rate indicates that results are **representative** of the class as a whole.

**Summary Evaluation of Teaching Effectiveness**

Teaching effectiveness is assessed in two ways: **A. Progress on Relevant Objectives**, a weighted average of student ratings of the progress they reported on objectives selected as "Important" or "Essential" (double weighted) and **B. Overall Ratings**, the average student agreement with statements that the teacher and the course were excellent. The **SUMMARY EVALUATION** is the average of these two measures. Individual institutions may prefer to combine these measures in some other manner to arrive at a summary judgment.

**Converted Averages** are standardized scores that take into account the fact that the average ratings for items on the IDEA form are not equal; students report more progress on some objectives than on others. Converted scores all have the same average (50) and the same variability (a standard deviation of 10); about 40% of them will be between 45 and 55. Because measures are not perfectly reliable, it is best to regard the "true score" as lying within plus or minus 3 of the reported score.

**For comparative purposes, use converted averages.** Your converted averages are compared with those from all classes in the IDEA database. If enough classes are available, comparisons are also made with classes in the same broad *discipline* as this class and/or with all classes that used IDEA at your *institution*. The *Interpretive Guide* offers some suggestions for using comparative results; **some institutions may prefer to establish their own "standards" based on raw or adjusted scores rather than on comparative standing.**

Both **unadjusted** (raw) and **adjusted** averages are reported. The latter makes classes more comparable by considering factors that influence student ratings, yet are beyond the instructor's control. Scores are adjusted to take into account student work habits (item 13), student desire to take the course regardless of who taught it (item 15), and instructor reported class size.

**Your Average Scores**

	Your Average (5-point scale)	
	Raw	Adj.
<b>A. Progress on Relevant Objectives</b> <sup>1</sup> Eight objectives were selected as relevant (Important or Essential –see page 2)	4.1	4.0
<b>Overall Ratings</b>		
B. Excellent Teacher	4.7	4.6
C. Excellent Course	4.4	4.2
D. Average of B & C	4.6	4.4
<b>Summary Evaluation (Average of A &amp; D)</b> <sup>1</sup>	4.4	4.2

<sup>1</sup> If you are comparing Progress on Relevant Objectives from one instructor to another, use the converted average.

<sup>2</sup> The process for computing Progress on Relevant Objectives for the Discipline and Institution was modified on May 1, 2006. Do not compare these results with reports generated prior to this date.

**Your Converted Average When Compared to All Classes in the IDEA Database**

Comparison Category	A. Progress on Relevant Objectives	Overall Ratings						Summary Evaluation (Average of A & D)	
		B. Excellent Teacher		C. Excellent Course		D. Average of B & C			
		Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.
<b>Much Higher</b> Highest 10% (63 or higher)									
<b>Higher</b> Next 20% (56–62)			57	56	58		58	56	56
<b>Similar</b> Middle 40% (45–55)	54	52			55				54
<b>Lower</b> Next 20% (38–44)									
<b>Much Lower</b> Lowest 10% (37 or lower)									

**Your Converted Average When Compared to Your:**<sup>2</sup>

Discipline (IDEA Data)	57	53	58	54	62	56	60	55	59	54
Institution	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**IDEA Discipline used for comparison:**  
Mathematics & Statistics

## Student Ratings of Learning on Relevant (Important and Essential) Objectives

Average unadjusted (raw) and adjusted progress ratings are shown below for those objectives you identified as "Important" or "Essential." **Progress on Relevant Objectives** (also shown on page 1) is a weighted average of student ratings of the progress they reported on objectives selected as "Important" or "Essential" (double weighted). The percent of students rating each as "1" or "2" (either "no" or "slight" progress) and as "4" or "5" ("substantial" or "exceptional" progress) is also reported. These results should help you identify objectives where improvement efforts might best be focused. For resources on improving learning and teaching, please refer to the **POD-IDEA Center Notes** ([www.theideacenter.org/podidea](http://www.theideacenter.org/podidea)), and **POD-IDEA Center Learning Notes** ([www.theideacenter.org/podidea/PODNotesLearning.html](http://www.theideacenter.org/podidea/PODNotesLearning.html)).

	Importance Rating	Your Average (5-point scale)		Percent of Students Rating	
		Raw	Adj.	1 or 2	4 or 5
1. Gaining factual knowledge (terminology, classifications, methods, trends)	Essential	4.3	4.1	0%	81%
2. Learning fundamental principles, generalizations, or theories	Essential	4.3	4.1	0%	86%
3. Learning to <i>apply</i> course material (to improve thinking, problem solving, and decisions)	Important	4.2	4.0	0%	78%
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course	Essential	4.1	4.0	0%	74%
5. Acquiring skills in working with others as a member of a team	Minor/None				
6. Developing creative capacities (writing, inventing, designing, performing in art, music, drama, etc.)	Minor/None				
7. Gaining a broader understanding and appreciation of intellectual/cultural activity (music, science, literature, etc.)	Minor/None				
8. Developing skill in expressing myself orally or in writing	Important	3.6	3.6	26%	59%
9. Learning how to find and use resources for answering questions or solving problems	Essential	4.1	4.1	6%	72%
10. Developing a clearer understanding of, and commitment to, personal values	Minor/None				
11. Learning to <i>analyze</i> and <i>critically evaluate</i> ideas, arguments, and points of view	Important	3.9	3.8	17%	67%
12. Acquiring an interest in learning more by asking my own questions and seeking answers	Important	4.0	3.9	6%	69%
<b>Progress on Relevant Objectives</b>		<b>4.1</b>	<b>4.0</b>		

Your Converted Average When Compared to Group Averages					
IDEA Database		IDEA Discipline		Your Institution	
Raw	Adj.	Raw	Adj.	Raw	Adj.
56 Higher	53 Similar	57 Higher	52 Similar	NA	NA
57 Higher	54 Similar	56 Higher	52 Similar	NA	NA
54 Similar	50 Similar	55 Similar	50 Similar	NA	NA
52 Similar	49 Similar	56 Higher	51 Similar	NA	NA
47 Similar	48 Similar	59 Higher	58 Higher	NA	NA
56 Higher	56 Higher	58 Higher	56 Higher	NA	NA
51 Similar	50 Similar	58 Higher	56 Higher	NA	NA
53 Similar	52 Similar	56 Higher	52 Similar	NA	NA
<b>54</b>	<b>52</b>	<b>57</b>	<b>53</b>	<b>NA</b>	<b>NA</b>

Much Higher = Highest 10% of classes (63 or higher)  
 Higher = Next 20% (56-62)  
 Similar = Middle 40% (45-55)  
 Lower = Next 20% (38-44)  
 Much Lower = Lowest 10% (37 or lower)

<sup>1</sup> The process for computing Progress on Relevant Objectives for the Discipline and Institution was modified on May 1, 2006. Do not compare these results with reports generated prior to this date.

## Description of Students

The two items describing your students relate to their academic motivation and work habits and are key factors in developing adjusted ratings.

Student Description	Your Average (5-point scale)
13. As a rule, I put forth more effort than other students on academic work.	3.8
15. I really wanted to take this course regardless of who taught it.	3.8

Your Converted Average When Compared to Group Averages				
IDEA Database		IDEA Discipline		Your Institution
56	Higher	55	Similar	NA
58	Higher	65	Much Higher	NA

Much Higher = Highest 10% of classes (63 or higher)  
 Higher = Next 20% (56-62)  
 Similar = Middle 40% (45-55)  
 Lower = Next 20% (38-44)  
 Much Lower = Lowest 10% (37 or lower)

## Statistical Detail

The details on this page are of interest primarily to those who want to confirm scores reported on pages 1 and 2 or who want to determine if responses to some items were distributed in an unusual manner.

Converted Averages are reported only for relevant learning objectives (Important or Essential –see page 2) and other items for which comparisons were provided.

	Number Responding								Converted Avg.		Comparison Group Average		
	1	2	3	4	5	Omit	Avg.	s.d.	Raw	Adj.	IDEA	Discipline	Institution
1. Gaining factual knowledge (terminology,...	0	0	7	11	18	0	4.3	0.8	56	53	4.0	4.0	NA
2. Learning fundamental principles, generalizations, or...	0	0	5	16	15	0	4.3	0.7	57	54	3.9	4.0	NA
3. Learning to apply course material (to improve thinking,...	0	0	8	14	14	0	4.2	0.8	54	50	4.0	3.9	NA
4. Developing specific skills, competencies, and points...	0	0	9	12	14	1	4.1	0.8	52	49	4.0	3.8	NA
5. Acquiring skills in working with others as a member of a team	2	3	12	9	10	0	3.6	1.2	NA	NA	3.9	3.5	NA
6. Developing creative capacities (writing, inventing, designing,...	6	6	8	9	7	0	3.1	1.4	NA	NA	3.9	2.9	NA
7. Gaining a broader understanding and appreciation of...	2	2	11	8	13	0	3.8	1.2	NA	NA	3.7	3.0	NA
8. Developing skill in expressing myself orally or in writing	2	7	5	9	11	2	3.6	1.3	47	48	3.8	2.9	NA
9. Learning how to find and use resources for answering...	1	1	8	10	16	0	4.1	1.0	56	56	3.7	3.6	NA
10. Developing a clearer understanding of, and commitment to,...	2	2	8	10	14	0	3.9	1.2	NA	NA	3.8	3.2	NA
11. Learning to analyze and critically evaluate ideas,...	1	5	6	8	16	0	3.9	1.2	51	50	3.8	3.4	NA
12. Acquiring an interest in learning more by asking my...	0	2	9	13	12	0	4.0	0.9	53	52	3.8	3.6	NA

Key: 1=No apparent progress 2=Slight progress 3=Moderate progress 4=Substantial progress 5=Exceptional progress      Bold=Selected as Important or Essential

13. As a rule, I put forth more effort than other students on...	1	1	10	13	9	2	3.8	1.0	56	NA	3.6	3.7	NA
14. My background prepared me well for this course's requirements.	1	3	11	12	8	1	3.7	1.0	NA	NA	NA	NA	NA
15. I really wanted to take this course regardless of who taught it.	2	5	5	8	14	2	3.8	1.3	58	NA	3.3	3.1	NA
16. As a result of taking this course, I have more positive feelings...	0	4	8	7	16	1	4.0	1.1	52	46	3.9	3.5	NA
17. Overall, I rate this instructor an excellent teacher.	0	0	3	6	26	1	4.7	0.6	57	56	4.2	4.2	NA
18. Overall, I rate this course as excellent.	0	0	6	8	21	1	4.4	0.8	58	55	3.9	3.7	NA

Key: 1 = Definitely False 2 = More False than True 3 = In Between 4 = More True than False 5 = Definitely True      Item 14 is an experimental item. Therefore, no comparative information is available.

### Additional Questions:

	1	2	3	4	5	Omit	Avg.	s.d.
19.	0	0	0	1	0	35	4.0	NA
20.	0	0	0	1	0	35	4.0	NA
21.						36		
22.						36		
23.						36		
24.						36		
25.						36		
26.						36		
27.						36		
28.						36		
29.						36		
30.						36		
31.						36		
32.						36		
33.						36		
34.						36		
35.						36		
36.						36		
37.						36		
38.						36		

### Notes

Consider selecting fewer objectives as "Important" or "Essential."  
Discipline code selected on FIF: 2700  
Discipline code used for comparison: 2700

To learn more, see the Interpretive Guide: [www.theideacenter.org/shortguide.pdf](http://www.theideacenter.org/shortguide.pdf)

There were **26** students enrolled in the course and **22** students responded. Your results are considered **fairly reliable**. The **85%** response rate indicates that results are **representative** of the class as a whole.

**Summary Evaluation of Teaching Effectiveness**

Teaching effectiveness is assessed in two ways: **A. Progress on Relevant Objectives**, a weighted average of student ratings of the progress they reported on objectives selected as "Important" or "Essential" (double weighted) and **B. Overall Ratings**, the average student agreement with statements that the teacher and the course were excellent. The **SUMMARY EVALUATION** is the average of these two measures. Individual institutions may prefer to combine these measures in some other manner to arrive at a summary judgment.

**Converted Averages** are standardized scores that take into account the fact that the average ratings for items on the IDEA form are not equal; students report more progress on some objectives than on others. Converted scores all have the same average (50) and the same variability (a standard deviation of 10); about 40% of them will be between 45 and 55. Because measures are not perfectly reliable, it is best to regard the "true score" as lying within plus or minus 3 of the reported score.

For comparative purposes, use converted averages. Your converted averages are compared with those from all classes in the IDEA database. If enough classes are available, comparisons are also made with classes in the same broad *discipline* as this class and/or with all classes that used IDEA at your *institution*. The *Interpretive Guide* offers some suggestions for using comparative results; **some institutions may prefer to establish their own "standards" based on raw or adjusted scores rather than on comparative standing.**

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**Your Average Scores**

	Your Average (5-point scale)	
	Raw	Adj.
<b>A. Progress on Relevant Objectives</b> <sup>1</sup> Eight objectives were selected as relevant (Important or Essential –see page 2)	4.2	4.3
<b>Overall Ratings</b>		
B. Excellent Teacher	4.7	4.8
C. Excellent Course	4.4	4.7
D. Average of B & C	4.6	4.8
<b>Summary Evaluation (Average of A &amp; D)</b> <sup>1</sup>	4.4	4.6

<sup>1</sup> If you are comparing Progress on Relevant Objectives from one instructor to another, use the converted average.

<sup>2</sup> The process for computing Progress on Relevant Objectives for the Discipline and Institution was modified on May 1, 2006. Do not compare these results with reports generated prior to this date.

**Your Converted Average When Compared to All Classes in the IDEA Database**

Comparison Category	A. Progress on Relevant Objectives		Overall Ratings						Summary Evaluation (Average of A & D)	
			B. Excellent Teacher		C. Excellent Course		D. Average of B & C			
	Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.	Raw	Adj.
<b>Much Higher</b> Highest 10% (63 or higher)						63				
<b>Higher</b> Next 20% (56-62)	56	57	58	59	58		58	61		59
<b>Similar</b> Middle 40% (45-55)										
<b>Lower</b> Next 20% (38-44)										
<b>Much Lower</b> Lowest 10% (37 or lower)										

**Your Converted Average When Compared to Your:**<sup>2</sup>

Discipline (IDEA Data)	60	59	58	57	62	63	60	60	60	60
Institution	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**IDEA Discipline used for comparison:**  
Mathematics & Statistics

## Student Ratings of Learning on Relevant (Important and Essential) Objectives

Average unadjusted (raw) and adjusted progress ratings are shown below for those objectives you identified as "Important" or "Essential." **Progress on Relevant Objectives** (also shown on page 1) is a weighted average of student ratings of the progress they reported on objectives selected as "Important" or "Essential" (double weighted). The percent of students rating each as "1" or "2" (either "no" or "slight" progress) and as "4" or "5" ("substantial" or "exceptional" progress) is also reported. These results should help you identify objectives where improvement efforts might best be focused. For resources on improving learning and teaching, please refer to the **POD-IDEA Center Notes** ([www.theideacenter.org/podidea](http://www.theideacenter.org/podidea)), and **POD-IDEA Center Learning Notes** ([www.theideacenter.org/podidea/PODNotesLearning.html](http://www.theideacenter.org/podidea/PODNotesLearning.html)).

	Importance Rating	Your Average (5-point scale)		Percent of Students Rating	
		Raw	Adj.	1 or 2	4 or 5
		1. Gaining factual knowledge (terminology, classifications, methods, trends)	<b>Essential</b>	4.6	4.7
2. Learning fundamental principles, generalizations, or theories	Important	4.6	4.7	0%	86%
3. Learning to <i>apply</i> course material (to improve thinking, problem solving, and decisions)	<b>Essential</b>	4.4	4.5	5%	91%
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course	<b>Essential</b>	4.4	4.6	5%	86%
5. Acquiring skills in working with others as a member of a team	Important	3.5	3.4	23%	45%
6. Developing creative capacities (writing, inventing, designing, performing in art, music, drama, etc.)	Minor/None				
7. Gaining a broader understanding and appreciation of intellectual/cultural activity (music, science, literature, etc.)	Minor/None				
8. Developing skill in expressing myself orally or in writing	Important	3.6	3.6	19%	48%
9. Learning how to find and use resources for answering questions or solving problems	Important	4.3	4.4	0%	86%
10. Developing a clearer understanding of, and commitment to, personal values	Minor/None				
11. Learning to <i>analyze</i> and <i>critically evaluate</i> ideas, arguments, and points of view	<b>Essential</b>	4.0	3.9	18%	77%
12. Acquiring an interest in learning more by asking my own questions and seeking answers	Minor/None				
<b>Progress on Relevant Objectives</b>		<b>4.2</b>	<b>4.3</b>		

<sup>1</sup> The process for computing Progress on Relevant Objectives for the Discipline and Institution was modified on May 1, 2006. Do not compare these results with reports generated prior to this date.

Your Converted Average When Compared to Group Averages					
IDEA Database		IDEA Discipline <sup>1</sup>		Your Institution <sup>1</sup>	
Raw	Adj.	Raw	Adj.	Raw	Adj.
62 Higher	65 Much Higher	63 Much Higher	64 Much Higher	NA	NA
63 Much Higher	66 Much Higher	63 Much Higher	64 Much Higher	NA	NA
58 Higher	60 Higher	60 Higher	59 Higher	NA	NA
56 Higher	60 Higher	60 Higher	61 Higher	NA	NA
43 Lower	41 Lower	51 Similar	48 Similar	NA	NA
48 Similar	47 Similar	59 Higher	57 Higher	NA	NA
60 Higher	61 Higher	63 Much Higher	61 Higher	NA	NA
52 Similar	51 Similar	59 Higher	57 Higher	NA	NA
56	57	60	59	NA	NA

Much Higher = Highest 10% of classes (63 or higher)  
 Higher = Next 20% (56-62)  
 Similar = Middle 40% (45-55)  
 Lower = Next 20% (38-44)  
 Much Lower = Lowest 10% (37 or lower)

## Description of Students

The two items describing your students relate to their academic motivation and work habits and are key factors in developing adjusted ratings.

Student Description	Your Average (5-point scale)
13. As a rule, I put forth more effort than other students on academic work.	3.8
15. I really wanted to take this course regardless of who taught it.	3.0

Your Converted Average When Compared to Group Averages				
IDEA Database		IDEA Discipline		Your Institution
56	Higher	55	Similar	NA
43	Lower	48	Similar	NA

Much Higher = Highest 10% of classes (63 or higher)  
 Higher = Next 20% (56-62)  
 Similar = Middle 40% (45-55)  
 Lower = Next 20% (38-44)  
 Much Lower = Lowest 10% (37 or lower)

## Statistical Detail

The details on this page are of interest primarily to those who want to confirm scores reported on pages 1 and 2 or who want to determine if responses to some items were distributed in an unusual manner.

Converted Averages are reported only for relevant learning objectives (Important or Essential –see page 2) and other items for which comparisons were provided.

	Number Responding								Converted Avg.		Comparison Group Average		
	1	2	3	4	5	Omit	Avg.	s.d.	Raw	Adj.	IDEA	Discipline	Institution
1. Gaining factual knowledge (terminology,...	0	0	3	3	16	0	4.6	0.7	62	65	4.0	4.0	NA
2. Learning fundamental principles, generalizations, or...	0	0	3	3	16	0	4.6	0.7	63	66	3.9	4.0	NA
3. Learning to <i>apply</i> course material (to improve thinking,...	1	0	1	7	13	0	4.4	1.0	58	60	4.0	3.9	NA
4. Developing specific skills, competencies, and points...	1	0	2	5	13	1	4.4	1.0	56	60	4.0	3.8	NA
5. Acquiring skills in working with others as a member of...	1	4	7	3	7	0	3.5	1.3	43	41	3.9	3.5	NA
6. Developing creative capacities (writing, inventing, designing,...	2	3	5	4	7	1	3.5	1.4	NA	NA	3.9	2.9	NA
7. Gaining a broader understanding and appreciation of...	2	2	3	5	9	1	3.8	1.4	NA	NA	3.7	3.0	NA
8. Developing skill in expressing myself orally or in writing	2	2	7	1	9	1	3.6	1.4	48	47	3.8	2.9	NA
9. Learning how to find and use resources for answering...	0	0	3	9	10	0	4.3	0.7	60	61	3.7	3.6	NA
10. Developing a clearer understanding of, and commitment to,...	1	0	6	5	10	0	4.0	1.1	NA	NA	3.8	3.2	NA
11. Learning to <i>analyze</i> and <i>critically evaluate</i> ideas,...	1	3	1	8	9	0	4.0	1.2	52	51	3.8	3.4	NA
12. Acquiring an interest in learning more by asking my own...	1	0	4	5	12	0	4.2	1.1	NA	NA	3.8	3.6	NA

Key: 1=No apparent progress 2=Slight progress 3=Moderate progress 4=Substantial progress 5=Exceptional progress      Bold=Selected as Important or Essential

13. As a rule, I put forth more effort than other students on...	0	1	6	11	4	0	3.8	0.8	56	NA	3.6	3.7	NA
14. My background prepared me well for this course's requirements.	1	5	4	8	4	0	3.4	1.2	NA	NA	NA	NA	NA
15. I really wanted to take this course regardless of who taught it.	4	6	4	3	5	0	3.0	1.5	43	NA	3.3	3.1	NA
16. As a result of taking this course, I have more positive feelings...	1	2	4	4	11	0	4.0	1.2	52	56	3.9	3.5	NA
17. Overall, I rate this instructor an excellent teacher.	0	0	2	3	17	0	4.7	0.6	58	59	4.2	4.2	NA
18. Overall, I rate this course as excellent.	1	0	1	7	13	0	4.4	1.0	58	63	3.9	3.7	NA

Key: 1 = Definitely False 2 = More False than True 3 = In Between 4 = More True than False 5 = Definitely True

Item 14 is an experimental item. Therefore, no comparative information is available.

### Additional Questions:

	1	2	3	4	5	Omit	Avg.	s.d.
19.	0	0	1	0	0	21	3.0	NA
20.	0	1	0	0	0	21	2.0	NA
21.	0	0	1	0	0	21	3.0	NA
22.	0	0	1	0	0	21	3.0	NA
23.	0	0	1	0	0	21	3.0	NA
24.						22		
25.						22		
26.						22		
27.						22		
28.						22		
29.						22		
30.						22		
31.						22		
32.						22		
33.						22		
34.						22		
35.						22		
36.						22		
37.						22		
38.						22		

Notes
Consider selecting fewer objectives as "Important" or "Essential." Discipline code selected on FIF: 2700 Discipline code used for comparison: 2700

## Core Competencies Assessment 2008-2009: Area II Courses

New Mexico Institution Name

Mathematics - Calculus I Competencies

<p style="text-align: center;"><b><u>State Competencies</u></b> (Learning Outcomes Being Measured)</p>	<p style="text-align: center;"><b><u>Assessment Procedures</u></b> Course Name and NMCCN (Process/Instrument named or described – rubric attached)</p>	<p style="text-align: center;"><b><u>Assessment Results</u></b></p>	<p style="text-align: center;"><b><u>How Results Will Be Used To Make Improvements</u></b></p>	<p style="text-align: center;"><b><u>(Optional)</u></b> Recommendations/Goals/ Priorities</p>
<p><b>1. Students will demonstrate an understanding of the theoretical, geometrical underpinnings of the calculus.</b> Students should: Algebraically and graphically demonstrate an understanding of:</p> <ul style="list-style-type: none"> <li>a. Limit</li> <li>b. Tangent line</li> <li>c. Difference quotient</li> <li>d. Fundamental theorem of calculus</li> <li>e. Riemann sums</li> </ul>	<p>Math 180 Elements of Calculus I (MATH 1613) <u>Math 180 - Elements of Calculus, I</u> <b>Course Goal #1: Communication Student Learning Outcomes (SLOs)</b></p> <p><b>SLO 1:</b> Students will use correct mathematical notation and terminology</p> <p><b>SLO 2:</b> Students will be able to generate, read, and interpret graphs of functions</p> <p><b>SLO 3:</b> Students will be able to use functions that model real-world situations such as the profit of a business, the design of a box, and the height of a thrown ball.</p> <p><b>SLO 4:</b> Students will use the various notations for the derivative.</p>	<p>Fall 2008: Math 180 85% of the students that started the class completed it 62% of them performed adequate or better on course goals and SLOs</p> <p>Spring 2009 Math 181 75% of the students that started the class completed it. 75% of them performed adequate or better on course goals and SLOs.</p>		<p><a href="#">The link below shows the number starters and completers in Math 121, Math 161 Calculus I, Math 163 Calculus II, Math 180 Elements of Calculus I and Math 181 Elements of Calculus II from the fall 2008 to summer 2009</a></p>

	<p><b>Course Goal #2: The Derivative</b> <b>Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p> <p><b>SLO 1:</b> Student will be able to determine the slope of a straight line from a graph and from any of the forms of the equation, and interpret it as a rate of change.</p> <p><b>SLO 2:</b> Students will understand the slope of a curve at a point as the slope of the tangent line to the graph at that point, and will be able to determine the slope from a graphic representation and also analytically. They will be able to write the equation of the tangent line to a curve at a given point.</p> <p><b>SLO3:</b> Student will be able to determine when the limit of a function exists and when it doesn't, and to find limits algebraically and also from the graph of a function.</p> <p><b>SLO 4:</b> Students will be able to determine</p>			
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	<p>derivatives of simple functions using the limit definition, and will be able to apply the different rules of differentiation (power, product, quotient, chain)</p> <p><b>SLO 5:</b> Students will be able to use the graph of a function to explain why a function is or is not continuous or differentiable at a point.</p> <p><b>Course Goal #3: Applications of the Derivative Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p> <p><b>SLO 1:</b> Students will be able to describe the graph of a function as increasing or decreasing, concave up or concave down and relate these descriptions to the first and second derivatives.</p> <p><b>SLO 2:</b> Students will be able to use the first and second derivative to find relative maxima, relative minima, and inflection points.</p>			
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	<p><b>SLO 3:</b> Students will be able to sketch the graph of a function using numbers 1 and 2 above.</p> <p><b>SLO 4:</b> Students will be able to solve optimization problems using the concept of derivative.</p> <p><b>SLO5:</b> Students will be able to analyze and solve real-world problems involving exponential growth and decay.</p> <p><b>Course Goal #4: Integrals Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p> <p><b>SLO 1:</b> Students will be able to find anti-derivatives of various types of functions.</p> <p><b>SLO 2:</b> Students will be able to use the Fundamental Theorem of Calculus and the rules of integration to evaluate definite integrals of simple functions.</p> <p><b>SLO 3:</b> Students will be able to find areas under curves, and use the definite integral to solve applied problems</p>			
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	Math 161 Calculus I (MATH1613)			
<p><b>2. Students will use concepts of function, limit, continuity, derivative, and integral.</b> Students should: Apply the theory of calculus through manipulations involving:</p> <ol style="list-style-type: none"> <li>The finding of limits.</li> <li>Using differentiation techniques.</li> <li>Working with transcendental &amp; trigonometric functions.</li> <li>Determining points of discontinuity and intervals of continuity.</li> </ol> <p>(Continued)</p>	<p>Math 180 Elements of Calculus I (MATH 1613) Math 1621 Calculus I (MATH1613)</p> <p><b>SLO 1:</b> Students will use correct mathematical notation and terminology</p> <p><b>SLO 2:</b> Students will be able to generate, read, and interpret graphs of functions</p> <p><b>SLO 3:</b> Students will be able to use functions that model real-world situations such as the profit of a business, the design of a box, and the height of a thrown ball.</p> <p><b>SLO 4:</b> Students will use the various notations for the derivative.</p> <p><b>Course Goal #2: The Derivative</b> <b>Addresses UNM core area 2/ HED area II:</b> <b>Mathematics (Calculus)</b></p> <p><b>SLO 1:</b> Student will be able to determine the slope of a straight line from a graph and from any of the forms of the equation, and</p>	<p>Fall 2008: Math 162 90% of the students that started the class completed it. 78% of those students performed adequate or better on course goals and SLOs</p> <p>Spring 2009: Math 163 100% of the students that started the class completed it. 67% of those students performed adequate or better on course goals and SLOs</p>		

	<p>interpret it as a rate of change.</p> <p><b>SLO 2:</b> Students will understand the slope of a curve at a point as the slope of the tangent line to the graph at that point, and will be able to determine the slope from a graphic representation and also analytically. They will be able to write the equation of the tangent line to a curve at a given point.</p> <p><b>SLO3:</b> Student will be able to determine when the limit of a function exists and when it doesn't, and to find limits algebraically and also from the graph of a function.</p> <p><b>SLO 4:</b> Students will be able to determine derivatives of simple functions using the limit definition, and will be able to apply the different rules of differentiation (power, product, quotient, chain)</p> <p><b>SLO 5:</b> Students will be able to use the graph of a function to explain why a function is or is not</p>			
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continuous or differentiable at a point.

**Course Goal #3:  
Applications of the  
Derivative  
Addresses UNM core area  
2/ HED area II:  
Mathematics (Calculus)**

**SLO 1:** Students will be able to describe the graph of a function as increasing or decreasing, concave up or concave down and relate these descriptions to the first and second derivatives.

**SLO 2:** Students will be able to use the first and second derivative to find relative maxima, relative minima, and inflection points.

**SLO 3:** Students will be able to sketch the graph of a function using numbers 1 and 2 above.

**SLO 4:** Students will be able to solve optimization problems using the concept of derivative.

**SLO5:** Students will be

	<p>able to analyze and solve real-world problems involving exponential growth and decay.</p> <p><b>Course Goal #4: Integrals Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p> <p><b>SLO 1:</b> Students will be able to find anti-derivatives of various types of functions.</p> <p><b>SLO 2:</b> Students will be able to use the Fundamental Theorem of Calculus and the rules of integration to evaluate definite integrals of simple functions.</p> <p><b>SLO 3:</b> Students will be able to find areas under curves, and use the definite integral to solve applied problems</p>			
<p><b>2. Students will use concepts of function, limit, continuity, derivative, and integral.</b> Students should: Apply the theory of calculus through manipulations involving:</p> <ol style="list-style-type: none"> <li>The finding of limits.</li> <li>Using differentiation techniques.</li> <li>Working with transcendental &amp;</li> </ol>	<p>Math 180 Elements of Calculus I (MATH 1613) Math 161 Calculus I (MATH1613)</p> <p><b>SLO 1:</b> Students will use correct mathematical notation and terminology</p>			

<p>trigonometric functions. d. Determining points of discontinuity and intervals of continuity.</p> <p>(Continued)</p>	<p><b>SLO 2:</b> Students will be able to generate, read, and interpret graphs of functions</p> <p><b>SLO 3:</b> Students will be able to use functions that model real-world situations such as the profit of a business, the design of a box, and the height of a thrown ball.</p> <p><b>SLO 4:</b> Students will use the various notations for the derivative.</p> <p><b>Course Goal #2: The Derivative</b> <b>Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p> <p><b>SLO 1:</b> Student will be able to determine the slope of a straight line from a graph and from any of the forms of the equation, and interpret it as a rate of change.</p> <p><b>SLO 2:</b> Students will understand the slope of a curve at a point as the slope of the tangent line to the graph at that point, and will be able to determine the slope from a graphic</p>			
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	<p>representation and also analytically. They will be able to write the equation of the tangent line to a curve at a given point.</p> <p><b>SLO3:</b> Student will be able to determine when the limit of a function exists and when it doesn't, and to find limits algebraically and also from the graph of a function.</p> <p><b>SLO 4:</b> Students will be able to determine derivatives of simple functions using the limit definition, and will be able to apply the different rules of differentiation (power, product, quotient, chain)</p> <p><b>SLO 5:</b> Students will be able to use the graph of a function to explain why a function is or is not continuous or differentiable at a point.</p> <p><b>Course Goal #3: Applications of the Derivative Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p>			
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	<p><b>SLO 1:</b> Students will be able to describe the graph of a function as increasing or decreasing, concave up or concave down and relate these descriptions to the first and second derivatives.</p> <p><b>SLO 2:</b> Students will be able to use the first and second derivative to find relative maxima, relative minima, and inflection points.</p> <p><b>SLO 3:</b> Students will be able to sketch the graph of a function using numbers 1 and 2 above.</p> <p><b>SLO 4:</b> Students will be able to solve optimization problems using the concept of derivative.</p> <p><b>SLO5:</b> Students will be able to analyze and solve real-world problems involving exponential growth and decay.</p> <p><b>Course Goal #4: Integrals Addresses UNM core area 2/ HED area II: Mathematics (Calculus)</b></p>			
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	<p><b>SLO 1:</b> Students will be able to find anti-derivatives of various types of functions.</p> <p><b>SLO 2:</b> Students will be able to use the Fundamental Theorem of Calculus and the rules of integration to evaluate definite integrals of simple functions.</p> <p><b>SLO 3:</b> Students will be able to find areas under curves, and use the definite integral to solve applied problems</p>			
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**Core Competencies Assessment 2008-2009: Area II Courses**

**New Mexico Institution Name: UNM Taos**

**Mathematics - Calculus I Competencies, cont.**

<p align="center"><b><u>State Competencies</u></b> (Learning Outcomes Being Measured)</p>	<p align="center"><b><u>Assessment Procedures</u></b> Course Name and NMCCN (Process/Instrument named or described – rubric attached)</p>	<p align="center"><b><u>Assessment Results</u></b></p>	<p align="center"><b><u>How Results Will Be Used To Make Improvements</u></b></p>	<p align="center"><b><u>(Optional)</u></b> Recommendations/Goals/ Priorities</p>
<p><b>3. Students will apply methods of calculus to optimization, graphing, and approximation.</b> Students should be able to:</p> <ul style="list-style-type: none"> <li>a. Find extreme points.</li> <li>b. Understand the graphs of a function and its 1<sup>st</sup> and 2<sup>nd</sup> derivatives and how they relate.</li> <li>c. Apply Newton’s method.</li> <li>d. Use differentials to approximate functions.</li> </ul>	<p>Math 181 Elements of Calculus II (MATH 1623) Math 162 Calculus II (MATH1623)</p>			
<p><b>4. Students will apply differential and integral calculus to problems in geometry, physics, and other fields.</b> Students should:</p> <ul style="list-style-type: none"> <li>a. Understand that calculus has many uses in science, business, and other fields.</li> <li>b. Students should be able to solve application problems involving rates of change, optimization, related rates, and acceleration/velocity.</li> </ul> <p align="center">End Area II – Calculus I</p>	<p>Math 181 Elements of Calculus II (MATH 1623) Math 162 Calculus II (MATH1623)</p>			

Area II-Calculus Assessment completed by \_\_\_\_\_  
*Signature*

Richard Niemeier  
\_\_\_\_\_  
*Printed Name*

October 27, 2009  
\_\_\_\_\_  
*Date*

Phone number 575-737-6224

**Core Competencies Assessment 2008-2009: Area II Courses**

**New Mexico Institution Name: UNM Taos**

**Mathematics – Other College-Level Mathematics**

**Competencies**

<p align="center"><b><u>State Competencies</u></b> (Learning Outcomes Being Measured)</p>	<p align="center"><b><u>Assessment Procedures</u></b> <b>Course Name and NMCCN</b> (Process/Instrument named or described – rubric attached)</p>	<p align="center"><b><u>Assessment Results</u></b></p>	<p align="center"><b><u>How Results Will Be Used To Make Improvements</u></b></p>	<p align="center"><b><u>(Optional)</u></b> Recommendations/Goals/ Priorities</p>
<p><b>1. Students will display, analyze, and interpret data.</b> Students should:</p> <ul style="list-style-type: none"> <li>a. Discriminate among different types of data displays for the most effective presentation.</li> <li>b. Draw conclusions from the data presented.</li> <li>c. Analyze the implication of the conclusion to real life situations.</li> </ul>	<p>Math 145 Statistics (Math2113)</p>			
<p><b>2. Students will demonstrate knowledge of problem-solving strategies.</b> Students should:</p> <ul style="list-style-type: none"> <li>a. For a given problem, gather and organize relevant information.</li> <li>b. Choose an effective strategy to solve the problem</li> <li>c. Express and reflect on the reasonableness of the solution to the problem.</li> </ul> <p align="center">(Continued)</p>	<p>Math 145 Statistics (Math2113)</p>			

**Core Competencies Assessment 2008-2009: Area II Courses**

New Mexico Institution Name : UNM Taos

Mathematics – Other College-Level Mathematics

**Competencies, cont.**

<p align="center"><b><u>State Competencies</u></b> (Learning Outcomes Being Measured)</p>	<p align="center"><b><u>Assessment Procedures</u></b> Course Name and NMCCN (Process/Instrument named or described – rubric attached)</p>	<p align="center"><b><u>Assessment Results</u></b></p>	<p align="center"><b><u>How Results Will Be Used To Make Improvements</u></b></p>	<p align="center"><b><u>(Optional)</u></b> Recommendations/Goals/ Priorities</p>
<p><b>3. Students will construct valid mathematical explanations.</b> Students should: Use mathematics to model and explain real life problems.</p>	<p>Math 129 A Survey of Mathematics Course Objectives:</p> <p>To instruct students in the following:</p> <ol style="list-style-type: none"> <li>1. Problem solving techniques and principles</li> <li>2. Set theory (set operations and Venn diagrams)</li> <li>3. Inductive and Deductive reasoning</li> <li>4. Truth tables (English statements represented symbolically)</li> <li>5. The Traveling Salesperson Problem</li> <li>6. Introduction to selected numeration systems</li> <li>7. Calculating in other bases</li> <li>8. Selected basic math topics (review)</li> <li>9. Topics in Geometry</li> </ol>			

	<p>(lines, angles, perimeters, areas, and volumes)</p> <p>10. Standard and Metric conversions</p> <p>11. Apportionment and the measure of fairness</p> <p>Selected business topics (percents, interest, annuities, and amortizations)</p>			
<p><b>4. Students will display an understanding of the development of mathematics.</b></p> <p>Students should:</p> <p>Recognize that math has evolved over centuries and that our current body of knowledge has been built upon contributions of many people and cultures over time.</p>	Math 129 A Survey of Mathematics			
<p><b>5. Students will demonstrate an appreciation for the extent, application, and beauty of mathematics.</b></p> <p>Students should:</p> <p>Recognize the inherent value of mathematical concepts, their connection to structures in nature, and their implications for everyday life.</p> <p>End – Area II Other Math</p>	Math 129 A Survey of Mathematics			

Area II-Other Math Assessment completed by \_\_\_\_\_  
*Signature*  
**Phone number: 575-737-6224**

**Richard Niemever**  
*Printed Name*

**October 27, 2009**  
*Date*

## Core Competencies Assessment 2008-2009: Area III Courses

New Mexico Institution Name: UNM Taos

Laboratory Science Competencies

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name and NMCCN (Process/Instrument named or described – rubric attached)	<u>Assessment Results</u>	<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/ Priorities
<p><b>1. Students will describe the process of scientific inquiry.</b> Students should:</p> <ol style="list-style-type: none"> <li>a. Understand that scientists rely on evidence obtained from observations rather than authority, tradition, doctrine, or intuition.</li> <li>b. Students should value science as a way to develop reliable knowledge about the world.</li> </ol> <p><b>2. Students will solve problems scientifically.</b> Students should:</p> <ol style="list-style-type: none"> <li>a. Be able to construct and test hypotheses using modern lab equipment (such as microscopes, scales, computer technology) and appropriate quantitative methods.</li> <li>b. Be able to evaluate isolated observations about the physical universe and relate them to hierarchically organized explanatory frameworks (theories).</li> </ol> <p><b>3. Students will communicate scientific information.</b> Students should: Communicate effectively about science (e.g., write lab reports in standard format and explain basic scientific concepts, procedures, and results using written, oral, and graphic presentation techniques.)</p> <p><b>4. Students will apply quantitative</b></p>	<p>Biol 110/112 Biology for Non-Majors (BIOL 1113/1111) Biol 123/124L Biology for Health Related Sciences (BIOL 1113) Envs 101/102L The Blue Planet (ENVS1113) Chem111L Elements of General Chemistry (CHEM1113/1111)</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Describe matter and energy in terms of chemical concepts. To emphasize basic principle of chemistry illustrating them with current examples</li> <li>• To help students learn to organize large amounts of material while concentrating on main points.</li> <li>• To present vocabulary and concepts needed in other chemical, biological,</li> </ul>			

**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.

**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.

End – Laboratory Science

medical or environmental science courses.

- To train students in basic chemistry laboratory techniques.
- To give students practice in making careful observations, recording them accurately in words or drawings, predicting results of experiments and explaining observations and results.
- To use mathematics to describe chemical reactions and measurements
- Describe the structure of the atom, learn the periodic classification of elements and electron configuration
- Be able to write chemical formulas and complete chemical reactions.

**LEARNING OUTCOMES:**

At the conclusion of this course, the student will be able to recall the basic principles of Chemistry, know basic ions, write chemical formulas and balance equations. The student will also be able to describe the different types of

chemical reactions and point out basic properties of atoms from the periodic table. The student will also be able to confidently perform stoichiometric calculations.  
Chem 121L/122L General Chemistry I & II  
(CHEM 1213/1211 & CHEM 1223/1221)  
Physics 151/151L & 152/152L General Physics  
(PHYS 1113/1111 & PHYS 1123/1121)  
Physics 161/161L & 162/162L General Physics  
(PHYS 1213/1211 & PHYS 1223/1221)  
E&PS 101/105L Intro to Geology (GEOL 1113/1111)  
**Student Outcomes – General**  
Upon successful completion of this course:  
Students will be able to define and analyze basic geologic principles and concepts.  
Students will be able to demonstrate hands-on knowledge of rocks and minerals.  
Students will be able to demonstrate the ability to recognize and interpret maps and air photos and apply that knowledge to

	<p>specific geological processes.</p> <p>Students will be able to interpret geological concepts and processes and apply them to real world situations.</p> <p>Students will be able to organize data and write coherent, concise reports, homework assignments, and essay questions.</p> <p>Students will be able to supplement readings in their textbook by searching library sources and electronic databases and analyzing material distributed by their instructor.</p> <p>Students will demonstrate how to apply the basic principles of geology and will learn why knowledge of geology can affect their future lives.</p> <p>Students will be able to analyze the ever-changing nature of geology (and science as a whole) and make decisions on best information available.</p> <p>Students will be able to recognize the importance of considering diverse perspectives and compare</p>			
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	<p>and contrast those perspectives in order to make informed decisions. Students will be able to analyze complex human – environment interactions, will be able to assess past damage to the environment, will be able to discuss remediation of environmental/geological disasters, and will be able to demonstrate methods of preventing future damage to the environment.</p> <p>E&amp;PS 201L Historical Geology (GEOL 1213/1211)</p>			
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Area III Assessment completed by \_\_\_\_\_

*Signature*

**Richard Niemever** \_\_\_\_\_

*Printed Name*

**October 27, 2009** \_\_\_\_\_

*Date*

Phone number 575-737-622

## Core Competencies Assessment 2008-2009: Area IV Courses

New Mexico Institution Name :UNM Taos

Social and Behavioral Sciences Competencies

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name and NMCCN (Process/Instrument named or described – rubric attached)	<u>Assessment Results</u>	<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/ Priorities
<p><b>1. Students will identify, describe and explain human behaviors and how they are influenced by social structures, institutions, and processes within the contexts of complex and diverse communities.</b>                      Students should:                      Develop an understanding of self and the world by examining content and processes used by social and behavioral sciences to discover, describe, explain, and predict human behaviors and social systems.</p> <p><b>2. Students will articulate how beliefs, assumptions, and values are influenced by factors such as politics, geography, economics, culture, biology, history, and social institutions.</b>                      Students should:                      Enhance knowledge of social and cultural institutions and the values of their society and other societies and cultures in the world.</p> <p><b>3. Students will describe ongoing reciprocal interactions among self, society, and the environment.</b>                      Students should:                      Understand the interdependent</p>	<p>Econ 105 Intro to Macroeconomics (ECON 2113)</p> <ol style="list-style-type: none"> <li>1. Using national income statistics, describe and analyze the economy in quantitative terms;</li> <li>2. Compare and contrast macroeconomic theories of output, employment and income;</li> <li>3. Describe the interrelationships among prices, income and interest rates as they affect consumption, saving and investment;</li> <li>4. Explain the banking and monetary system and analyze the role of money, credit and the Federal Reserve.</li> </ol> <p>Econ 106 Intro to Microeconomics (ECON 2123)</p> <p>Understand the role of supply and demand in a market economy and the necessary</p>			

<p>nature of the individual, family/social group, and society in shaping human behavior and determining quality of life.</p> <p><b>4. Students will apply the knowledge base of the social and behavioral sciences to identify, describe, explain, and critically evaluate relevant issues, ethical dilemmas, and arguments.</b> – Students should:          Articulate their role in a global context and develop an awareness and appreciation for diverse value systems in order to understand how to be good citizens who can critically examine and work toward quality of life within a framework of understanding and justice.</p> <p>End – Social/Behavioral Sciences</p>	<p>conditions for market economies to function well          Apply marginal utility theory to describe consumer behavior          Explain the concept of price elasticity of demand and its bearing on business and government pricing decisions          Identify the differences between total, average and marginal costs, and summarize when each cost is used</p> <p>Pols 200 American Politics (POLS 1123)          Discuss the theoretical and historical underpinnings of the US Constitution;          Describe the structure and function of the differing branches of American Government;          Explain the influence socio-political movements, interest groups, corporations, political parties, campaigns and elections have on American politics.</p> <p>Psych 105 General Psychology (PSYC 1113)          Demonstrate familiarity with the major concepts, theoretical perspectives, research methods, core empirical findings, and</p>			
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	<p>historical trends in psychology. Understand the major psychological approaches to the study of behavior and be able to compare and contrast the major theories of development. Demonstrate knowledge and understanding representing appropriate breadth and depth in selected content areas of psychological theory and research (including the 14 domains covered in the textbook) Demonstrate critical thinking skills in acquiring knowledge and become an informed consumer of psychological information.</p> <p>Soc 101 Intro to Sociology (SOCI 1113)</p> <p>Anth 101 Intro to Anthropology (ANTH1113) Investigate the variety of human culture and demonstrate an understanding of the ways in which cultures have changed; Understand and employ a wide range of humanistic, qualitative, quantitative, theoretical, or philosophical methods for recording and explaining human experience; Describe ways in which a given language reflects a way</p>			
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	<p>of thinking, cultural heritage, larger set of cultural values, or aspects of society;  Identify and assess their own and others' values; identify the underlying premises in their own and others' arguments; and  Use appropriate technologies to conduct research on and communicate about language, culture, and/or philosophy and to access, evaluate, and manage information to prepare and present their work effectively.</p> <p>Anth 130 Cultures of the World (ANTH2113)</p> <ol style="list-style-type: none"> <li>1. Describe the diversity of cultures in the world as well as cultural universals.</li> <li>2. Apply holistic analysis to social phenomena.</li> <li>3. Use a holistic perspective to teach others about a culture other than their own.</li> <li>4. Analyze the relationship between the individual and the social group.</li> <li>5. Display appreciation for the value of different cultures and awareness of what we learn from them.</li> </ol> <p>Geog 101 Physical Geography (GEOG 1113)</p>			
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Area IV Assessment completed by \_\_\_\_\_

Renee Barela Gutierrez/Randi Archuleta

October 27, 2009

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*Signature*

*Printed Name*

*Date*

Phone number 575-737-6224

**Core Competencies Assessment 2008-2009: Area V Courses**

New Mexico Institution Name: UNM Taos

Humanities and Fine Arts Competencies

<u>State Competencies</u> (Learning Outcomes Being Measured)	<u>Assessment Procedures</u> Course Name and NMCCN (Process/Instrument named or described – rubric attached)	<u>Assessment Results</u>	<u>How Results Will Be Used To Make Improvements</u>	<u>(Optional)</u> Recommendations/Goals/Priorities
<ol style="list-style-type: none"> <li>1. Students will analyze and critically interpret significant and primary texts and/or works of art (this includes fine art, literature, music, theatre, and film.)</li> <li>2. Students will compare art forms, modes of thought and expression, and processes across a range of historical periods and/or structures (such as political, geographic, economic, social, cultural, religious, and intellectual).</li> <li>3. Students will recognize and articulate the diversity of human experience across a range of historical periods and/or cultural perspectives.</li> <li>4. Students will draw on historical and/or cultural perspectives to evaluate any or all of the following: contemporary problems/issues, contemporary modes of expression, and contemporary thought.</li> </ol> <p>For all Humanities and Fine Arts Competencies, students should: Possess an understanding of the</p>	<p>Hist 101L Western Civilization to 1648 (HIST 1053)</p> <p>(1) Define the basic components of culture and explain the impact of cultural factors in the development of Western Civilization.</p> <p>(2) Identify individuals and people groups that have contributed to the political, economic, and social development of Western Civilization.</p> <p>(3) Explain institutional formation and its influence on cultural organization and control.</p> <p>(4) Analyze the major religions and philosophies of Western Civilizations and evaluate their impact on cultural change.</p> <p>Hist 102L Western Civilization Post 1648 (HIST 1063)</p> <p>(1) Identify individuals and</p>			

<p>present that is informed by an awareness of past heritages in human history, arts, philosophy, religion, and literature, including the complex and interdependent relationships among cultures.</p> <p>Note: For the purposes of the Humanities and Fine Arts requirement, courses will come from the areas of History, Philosophy, Literature, Art, Dance, Music, Theatre and those offerings from other disciplines that also include, among other criteria, analytical study of primary texts and /or works of art as forms of cultural and creative expression. This requirement does not include work in areas such as studio and performance courses or courses that are primarily skills-oriented. The requirements must be fulfilled by courses from two different disciplines.</p> <p>End – Humanities/Fine Arts</p>	<p>people groups that have contributed to the political, economic, and social development of western civilization in the modern period.</p> <p>(2) Formulate a chronology and analyze the role of the European nation-state in the period 1500 to the present.</p> <p>(3) Evaluate the political and economic philosophies and systems that develop in the modern period.</p> <p>(4) Identify the racial and ethnic differences in Western societies and assess the resulting tensions and conflicts.</p> <p>(5) Explain the Western intellectual tradition and evaluate its influence.</p> <p>Hist 161L History of the US to 1877 (HIST 1113)</p> <p>1) Identify the experiences of Native American, Europeans, and Africans in U.S. colonial history and analyze each culture’s contribution to colonial economics and society.</p> <p>(2) Formulate a chronology of U.S. colonial history that encompasses the period’s central political, economic, and social developments.</p>			
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	<p>(3) Discuss colonial geography including 16<sup>th</sup> and 17<sup>th</sup>-century colonial claims and 19<sup>th</sup>-century westward expansion.</p> <p>(4) Differentiate between colonial governments and evaluate the influence of colonial precedent on the revolutionary state constitutions, the Articles of Confederation, and the Constitution.</p> <p>Hist 162L History of the US Since 1877 (HIST 1123)</p> <ol style="list-style-type: none"><li>1. Analyze the changes and continuities in the position of African Americans from Reconstruction to the present including but not limited to political and social access, religious and cultural expression and civil rights</li><li>2. Analyze the changes and continuities in the position of Native Americans from westward settlement to the present including but not limited to governmental policies, cultural interaction and conflict, images of Native Americans and issues of sovereignty</li><li>3. Analyze the changes and continuities in the position of women from post-Civil War</li></ol>			
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	<p>to the present including but not limited to political access, legal status, employment opportunities, and issues of sex and gender.</p> <p>4. Analyze the effects of American foreign policy abroad and at home including but not limited to American expansionism/imperialism, visions of spreading democracy, Cold War and post-Cold War attitudes and issues of globalization</p> <p>5. Explain the major economic, technological and scientific developments and their historical significance</p> <p>Phil 101 Intro to Philosophical Problems (PHIL 1113)</p> <p>Students who complete this course will be able to: evaluate any philosophical argument to determine its soundness; approach a diverse range of philosophical, cultural and religious viewpoints with an open and tolerant attitude; and develop an ability to question pre-suppositions and beliefs, including and especially their own.</p>			
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	<p>Relg 107 Living World Religions (RELI 1113) Explain the developmental stages of each of the five major religions. Evaluate the principal tenets of each of these belief systems Describe the most important practice of each of these religions Analyze the relationship that exist among these religions</p> <p>Regl 263 Eastern Religions (RELI 1213) Situates a survey of eastern religions within the domain of religious studies; Identify the founders, scriptures, and essential worldviews of Hinduism, Buddhism, Sikhism, Jainism, Confucianism, Taoism, and Shintoism. Describe ethical systems of Hinduism, Buddhism, Sikhism, Jainism, Confucianism, Taoism, and Shintoism. Describe religious practices of Hinduism, Buddhism, Sikhism, Jainism, Confucianism, Taoism, and</p>			
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	<p>Shintoism.</p> <p>Regl 264 Western Religions (RELI 1223)  Compare and contrast the belief systems, practices, vocabulary, central tenets and philosophical assumptions of the major religions of the world;  Appraise the historical conditions that gave rise to (or transformed) these religions, and the influence that these religions have in the world today;  Question the relevance and meaning that religion has in the consciousness of those who practice it.</p> <p>Engl 150 Study of Literature (ENGL 2213)  <b>Historical and Cultural Context.</b> To situate key author and literary works within their historical and cultural contexts and compare those works to those from other cultural traditions and other historical eras in terms of genre, style, and content or theme;  <b>Literary Analysis.</b> To analyze, interpret, and compare literary texts from different historical and cultural traditions in several short essays using critical terms of</p>			
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	<p>literary analysis and responding to questions about genre, style, and content or theme;</p> <p><b>Universality and Difference.</b> recognize and evaluate how some literary works reflect historical, national, cultural, and ethnic differences, even as they invoke shared human experiences that may relate to readers and the world today;</p> <p><b>Proficient Essay Writing.</b> To write with increasing proficiency critical essays characterized by original and insightful theses, supported by logically integrated and sound subordinate ideas, appropriate and pertinent evidence, and good sentence structure, diction, grammar, punctuation, and spelling .</p> <p>Arth 101 Intro to Art (ARTS 1013)</p> <ol style="list-style-type: none"> <li>1. Students will have a basic understanding of art concepts, the elements and principles of design and composition. Students will be able to carry out a written or oral analysis of the formal properties of a selected work of art.</li> <li>2. Students will possess basic knowledge of the materials and techniques used in</li> </ol>			
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	<p>drawing, painting, graphics and the three dimensional arts. Student will be able to identify works of art by medium and technique.</p> <p>3. Students will demonstrate an understanding of the arts in chronological sequence. Students will be able to select and describe major artworks from the stylistic periods covered in the course</p> <p>4. Students will be able to analyze and convey the psychological, social expressive, spiritual and physical uses of actual art works encountered in museums, galleries or artists' studios.</p> <p>5. Students will be able to utilize analytical tools and resources acquired in the course to carry out basic research on art.</p> <p>Arth 201 History of Art I (ARTS 2113) Arth 202 History of Art II (ARTS 2123)</p> <p>Mus 139 Music Appreciation (MUS 1113)</p> <p>1. Students understand the basic components of music. 2. Students understand music</p>			
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from the periods studied.  
3. Students become vital concert-goers audience and are able to intelligently discuss and critique the craft and all of its various disciplines.

4. Students understand the need for continued study to enhance their career goals in the field of musical arts.

Thea 122 Intro to Theater (THTR 1013)

1. Students understand the basic components of the physical theatre.

2. Students understand the various roles of the theatre's practitioners (i.e. producer, director, actor, set designer, etc.)

3. Students become vital theatre audience members and are able to intelligently discuss and critique the craft and all of its various disciplines.

4. Students understand that theatre is a collaborative art that depends on each practitioner to shape an overall experience.

5. Students are familiar with notable 20 Century playwrights, their plays, and the evolution of

	contemporary American drama 6. Students understand the need for continued study to enhance their career goals in the field of theatre arts.			
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Area V Assessment completed by \_\_\_\_\_  
*Signature*

**Renee Barela Gutierrez/Gary Cook**  
*Printed Name*

**October 27, 2009**  
*Date*

Phone number 575-737-6224