Institution Name **The University of New Mexico**
Core Competencies Report

Date Submitted Oct. 1, 2010

Attachments (please check all that apply):

[X]	Area I Communications	*Contact Person* Tom Root, troot@unm.edu
[X]	Area II Math—Algebra	*Contact Person* Tom Root, troot@unm.edu
[X]	Area II Math—Calculus	*Contact Person* Tom Root, troot@unm.edu
[X]	Area II Math—Other Math	*Contact Person* Tom Root, troot@unm.edu
[X]	Area III Laboratory Science	*Contact Person* Tom Root, troot@unm.edu
[X]	Area IV Social/Behavioral Sciences	*Contact Person* Tom Root, troot@unm.edu
[X]	Area V Humanities/Fine Arts	*Contact Person* Tom Root, troot@unm.edu

This report fulfills reporting requirements for the New Mexico Higher Education Dept.

Attested:

Suzanne T. Ortega

Chief Academic Officer Signature

Suzanne T. Ortega, Provost & Exec. VP for Aca. Affairs

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Institutional URL for HED Core Competencies Assessment Reports: www.unm.edu/~assess/GenEdAssessment.html

Core Competencies Assessment 2009-2010: Area I Courses

The University of New Mexico
PHIL 156 Reasoning and Critical Thinking

Communications Competencies
NMCCN= PHIL 1213

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
1. Students will analyze and evaluate oral and written communication in terms of situation, audience, purpose, aesthetics, and diverse points of view. Students should: Understand, appreciate, and critically evaluate a variety of written and spoken messages in order to make informed decisions.	64% random sample of essays or exams from 619 students in the first month and again in the final month of the course in 16 sections of the course. Student work scored with single analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.648.		
2. Students will express a primary purpose in a compelling statement and order supporting points logically and convincingly. Students should: Organize their thinking to express their viewpoints clearly, concisely, and effectively.	64% random sample of essays or exams from 735 students in the first month and again in the final month of the course in 19 sections of the course. Student work scored with single analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.50.		
3. Students will use effective rhetorical strategies to persuade, inform, and engage. 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 (PowerPointTM, electronic writing), and graphics (charts, diagrams, formats). (Continued)	64% random sample of essays or exams from 735 students in the first month and again in the final month of the course in 19 sections of the course. Student work scored with single analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.50.		

Core Competencies Assessment 2009-2010: Area I Courses, cont.

The University of New Mexico
PHIL 156 Reasoning and Critical Thinking

Communications Competencies, cont.
NMCCN= PHIL 1213

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
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. Students should: Use standard processes for generating documents or oral presentations independently and in groups.	64% random sample of essays or exams from 619 students in the first month and again in the final month of the course in 16 sections of the course. Student work scored with single analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.82.		
5. Students will integrate research correctly and ethically from credible sources to support the primary purpose of a communication. Students should: Gather legitimate information to support ideas without plagiarizing, misinforming or distorting.	64% random sample of essays or exams from 735 students in the first month and again in the final month of the course in 19 sections of the course. Student work scored with single analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.50.		
6. Students will engage in reasoned civic discourse while recognizing the distinctions among opinions, facts, and inferences. Students should: Negotiate civilly with others to accomplish goals and to function as responsible citizens. End -- Area I	64% random sample of essays or exams from 619 students in the first month and again in the final month of the course in 16 sections of the course. Student work scored with single analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.82.		

Area I Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. 9/30/2010 **Phone number** 277-4130
Name *Date*

Core Competencies Assessment 2009-2010: Area II Courses

The University of New Mexico
Not Assessed This Year

Mathematics – Algebra Competencies
New Mexico Common Core Number = N/A

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
1. Students will graph functions Students should: a. Sketch the graphs of linear, higher-order polynomial, rational, absolute value, exponential, logarithmic, and radical functions. 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. c. Determine the vertex, axis of symmetry, maximum or minimum, and intercepts of a quadratic equation.	No Algebra Competencies were assessed this year.			
2. Students will solve various kinds of equations. Students should: a. Solve quadratic equations using factoring, completing the squares, the square root method, and quadratic formula. b. Solve exponential and logarithmic equations. c. Solve systems of two or three linear equations.				

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Core Competencies Assessment 2009-2010: Area II Courses, cont.

The University of New Mexico
Not Assessed This Year

Mathematics – Algebra Competencies, cont.
New Mexico Common Core Number = N/A

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
3. Students will demonstrate the use of function notation and perform operations on functions. Students should: a. Find the value of a function for a given domain value b. Add, subtract, multiply, divide and compose functions. c. Determine the inverse of a function. d. Compute the difference quotient for a function. e. Correctly use function notation and vocabulary related to functions, i.e. domain, range, independent variable, of, even symmetry, etc.				
4. Students will model/solve real-world problems. Students should: a. Use and understand slope as a rate of change. b. Use equations and systems of equations to solve application problems. c. Apply knowledge of functions to solve specific application problems. d. Solve compound interest problems. e. Solve application problems involving maximization or minimization of a quadratic function. f. Solve exponential growth and decay problems. End – Area II - Algebra				

Area II-Algebra Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. 9/30/2010 **Phone number** 277-4130
Name *Date*

Core Competencies Assessment 2009-2010: Area II Courses, cont.

The University of New Mexico
Not Assessed This Year

Mathematics - Calculus I Competencies
New Mexico Common Core Number = N/A

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
1. Students will demonstrate an understanding of the theoretical, geometrical underpinnings of the calculus. Students should: Algebraically and graphically demonstrate an understanding of: a. Limit b. Tangent line c. Difference quotient d. Fundamental theorem of calculus e. Riemann sums	No Calculus Competencies were assessed this year.			
2. Students will use concepts of function, limit, continuity, derivative, and integral. Students should: Apply the theory of calculus through manipulations involving: a. The finding of limits. b. Using differentiation techniques. c. Working with transcendental & trigonometric functions. d. Determining points of discontinuity and intervals of continuity.				

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Core Competencies Assessment 2009-2010: Area II Courses, cont.

The University of New Mexico
Not Assessed This Year

Mathematics - Calculus I Competencies, cont.
New Mexico Common Core Number = N/A

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
3. Students will apply methods of calculus to optimization, graphing, and approximation. Students should be able to: a. Find extreme points. b. Understand the graphs of a function and its 1st and 2nd derivatives and how they relate. c. Apply Newton's method. d. Use differentials to approximate functions.				
4. Students will apply differential and integral calculus to problems in geometry, physics, and other fields. Students should: a. Understand that calculus has many uses in science, business, and other fields. b. Students should be able to solve application problems involving rates of change, optimization, related rates, and acceleration/velocity. End Area II – Calculus I				

Area II-Calculus I Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. 9/30/2010 **Phone number** 277-4130
Name *Date*

Core Competencies Assessment 2009-2010: Area II Courses, cont.

The University of New Mexico — **Mathematics – Other College-Level Mathematics Competencies**

Not Assessed This Year — New Mexico Common Core Number = N/A

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
1. Students will display, analyze, and interpret data. Students should: a. Discriminate among different types of data displays for the most effective presentation. b. Draw conclusions from the data presented. c. Analyze the implication of the conclusion to real life situations.	No competencies were assessed this year in Other College-Level Math.			
2. Students will demonstrate knowledge of problem-solving strategies. Students should: a. For a given problem, gather and organize relevant information. b. Choose an effective strategy to solve the problem c. Express and reflect on the reasonableness of the solution to the problem.				

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Core Competencies Assessment 2009-2010: Area II Courses, cont.

The University of New Mexico — **Mathematics – Other College-Level Mathematics Competencies, cont.**

Not Assessed This Year — New Mexico Common Core Number = N/A

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
3. Students will construct valid mathematical explanations. Students should: Use mathematics to model and explain real life problems.				
4. Students will display an understanding of the development of mathematics. Students should: 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.				
5. Students will demonstrate an appreciation for the extent, application, and beauty of mathematics. Students should: Recognize the inherent value of mathematical concepts, their connection to structures in nature, and their implications for everyday life.				

End – Area II Other Math

Area II-Other Math Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. *Name* 9/30/2020 *Date* **Phone number** 277-4130

Core Competencies Assessment 2009-2010: Area III Courses

The University of New Mexico
GEOL 105L Intro Geology Lab

Laboratory Science Competencies
GEOL 1111

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
1. Students will describe the process of scientific inquiry. Students should: a. Understand that scientists rely on evidence obtained from observations rather than authority, tradition, doctrine, or intuition. b. Students should value science as a way to develop reliable knowledge about the world.	For all five competencies problems/tasks designed to measure each competency were embedded in comprehensive exams scored by holistic rubrics. 124 students in 7 sections participated in the assessments.	95% of students scored satisfactory or better.		
2. Students will solve problems scientifically. Students should: a. Be able to construct and test hypotheses using modern lab equipment (such as microscopes, scales, computer technology) and appropriate quantitative methods. b. Be able to evaluate isolated observations about the physical universe and relate them to hierarchically organized explanatory frameworks (theories).		89% of students scored satisfactory or better.		
3. Students will communicate scientific information. Students should: (Continued)		91% of students scored satisfactory or better.		

Core Competencies Assessment 2009-2010: Area III Courses, cont.

The University of New Mexico
GEOL 105L Intro Geology Lab

Laboratory Science Competencies, cont.
GEOL 1111

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals Priorities
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.)				
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.		91% of students scored satisfactory or better.		
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.		96% of students scored satisfactory or better.		
End – Laboratory Science				

Area III Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. 9/30/2010 **Phone number** 277-4130
Name *Date*

Core Competencies Assessment 2009-2010: Area IV Courses

The University of New Mexico
CRP 181 Intro to Environmental Problems

Social and Behavioral Sciences Competencies
New Mexico Common Core Number = ????

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
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. 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.	Faculty used a four-point scale to score responses to final exam questions by a 17% random sample (N=10) of students in one section of the course.	The average score on the question related to competency #1 was 3.56 out of 4.0.		
2. Students will articulate how beliefs, assumptions, and values are influenced by factors such as politics, geography, economics, culture, biology, history, and social institutions. Students should: Enhance knowledge of social and cultural institutions and the values of their society and other societies and cultures in the world.		The average score on the question related to competency #2 was 3.92 out of 4.0.		

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Core Competencies Assessment 2009-2010: Area IV Courses, cont.

The University of New Mexico
University/College Course Number and Name here)

Social and Behavioral Sciences Competencies, cont. (Place (Place New Mexico Common Core Number here)

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
3. Students will describe ongoing reciprocal interactions among self, society, and the environment. Students should: Understand the interdependent nature of the individual, family/social group, and society in shaping human behavior and determining quality of life.		The average score on the question related to competency #3 was 3.56 out of 4.0.		
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. – 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. End – Social/Behavioral Sciences		The average score on the question related to competency #4 was 3.74 out of 4.0.		

Area IV Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. 9/30/2010 **Phone number** 277-4130
Name *Date*

Core Competencies Assessment 2009-2010: Area V Courses

The University of New Mexico
PHIL 101 Introduction to Philosophical Problems

Humanities and Fine Arts Competencies
New Mexico Common Core Number = PHIL 1113)

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
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.)	60% random sample of essays or exams from 873 students in the first month and again in the final month of the course in 15 sections of the course. Student work scored with single four scale analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.50.		
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).		Competency #2 was not assessed.		
3. Students will recognize and articulate the diversity of human experience across a range of historical periods and/or cultural perspectives.	60% random sample of essays or exams from 582 students in the first month and again in the final month of the course in 10 sections of the course. Student work scored with single four scale analytic rubric.	Greater than 90% of students scored acceptable or better on the final assessment with an average rate of change from the first assessment of 0.326.		
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.		Competency #4 was not assessed.		

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Core Competencies Assessment 2009-2010: Area V Courses, cont.

The University of New Mexico)
(Place University/College Course Number and Name here)

Humanities and Fine Arts Competencies, cont.
(Place New Mexico Common Core Number here)

State Competencies (Learning Outcomes Being Measured)	**Assessment Procedures** (Process/Instrument named or described – rubric attached)	**Assessment Results**	**How Results Will Be Used To Make Improvements**	**(Optional)** Recommendations/Goals/ Priorities
For all Humanities and Fine Arts Competencies, students should: Possess an understanding of the 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. 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. End – Humanities/Fine Arts				

Area V Assessment Contact Person Tom Root, Outcomes Assessment Planning Mgr. 9/30/2010 **Phone number** 277-4030
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