Student Learning Assessment Committee

STUDENT LEARNING ASSESSMENT PROGRAM REPORTS 2013-2014

October 2014

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INTRODUCTION

This document contains the eleven* individual *Student Learning Assessment Program Reports* which are referred to in the *Student Learning Assessment Committee Annual Report 2013-2014,* and should be considered an appendix to that report. These two reports taken together are a detailed summation of the College's activities as they relate to the assessment of student learning during the 2013-2014 academic year.

This *Student Learning Assessment Program Reports 2013-2014* document presents the individual program efforts detailing the plan-do-study-adjust cycle of assessing student learning at the program level. The amalgamation of the *Student Learning Assessment Program Reports* collectively documents the College's attempt to more succinctly and comprehensively identify and measure student learning outcomes attainment and to use this information to improve learning at the program-level. An analysis of the program-level assessment results can be found in the *Student Learning Assessment Committee's Annual Report 2013-2014.*

*Thirteen programs submitted reports during for the 2012-2013 academic cycle. The Associate of Applied Science – General Studies and the Pre-Nursing programs did not submit 2013-2014 reports.

COMMITTEE COMPOSITION

During the 2013-2014 academic year, the Student Learning Assessment Committee consisted of the following members:

Tom Morris	Co-Chair, Health and Wellness Facility Coordinator/Faculty (Health and Wellness)
Dr. Forrest Kaatz	Co-Chair, Director of Institutional Research and Development/Adjunct Faculty
Dr. John Bauler	Director of Distance Learning/Adjunct Faculty
Rose Chavez	Retention Specialist
Kim Enriquez	Committee Secretary, Administrative Assistant/ Adjunct Faculty
Donna Garcia	Director of Academic Affairs/Adjunct Faculty
Natalie Gillard	Vice-President of Academic Affairs
Dr. Axel Hungerbuehler	Natural Sciences Faculty/ Museum Curator
Dr. Philip Kaatz	Mathematics/Physical Science Faculty

COMMITTEE OBJECTIVES

The Student Learning Assessment Committee has three explicit objectives:

Objective 1 Enhance the knowledge of all full-time and adjunct faculty at Mesalands Community College about the assessment of student learning by conducting meetings and workshops, distributing materials, and by providing resources (e.g., Assessment Reserve Collection in the Library) with the ultimate goal of improving student learning and success. All faculty will receive a copy of the *Student Learning Assessment Guide for Faculty* by the first week of classes. The Student Learning Assessment Committee will have at least one joint meeting with the Faculty Council every semester.

Objective 2 Facilitate and implement the development of feedback loops and information dissemination about assessment at the College by:

A. producing an *Annual Report* by October of each year
B. providing all faculty with copies of the *Student Learning Assessment Guide for Faculty* each academic year
C. having at least one joint meeting with the Faculty Council every fall and spring semester

D. providing all adjunct and new faculty with assessment-related training and an assessment mentor
E. presenting information on assessment at every new student orientation and during each section of ACS 100 Student College Success class, including delivery of the brochure *Student Guide to Learning Assessment*
F. conducting a semi-annual Assessment Day to be held every fall and spring semesters. The semi-annual Assessment Day is a joint meeting between the Committee and all full-time faculty used to discuss, update, and refine the assessment practices at the College

Objective 3 Oversee the implementation of the *Student Learning Assessment Guide for Faculty* so that faculty and staff will provide all the documents and reports specified in the *Guide* within one week of the stated deadline.

PURPOSE OF PROGRAM LEVEL ASSESSMENT

The purpose of program level assessment is to document how well students are accomplishing the program specific objectives and general education competencies. The program objectives and general education competencies are Mesalands' contract with all students and reflect those competencies that students will possess and demonstrate upon graduation. These program objectives and general education competencies reflect those knowledge, skills and professional dispositions valued by workplace employers and other interested parties and represent the most deeply held values of the College, thereby driving much of what occurs at Mesalands.

Degree programs are required to assess both general education competency and program objective outcomes. Certificate programs are required to measure program objective outcomes only.

GENERAL EDUCATION COMPETENCIES
CRITERIA REFERENCES

Mesalands Community College has identified six general education competencies that all students will possess upon graduating with a degree. These general education competencies are assessed wherever and however they are taught at the College using rubrics. Simply put, a rubric is a scoring tool that identifies specific expectations for a task or assignment. Rubrics divide the task into its component parts and provide a detailed description of what constitutes an acceptable or unacceptable level of performance for each of those parts. The General Education Competency rubrics utilized by the College are located in Appendix A of the *Student Learning Assessment Guide for Faculty 2014-2015*. The criteria references are referred to through-out the eleven individual *Student Learning Assessment Program Reports* and are identified below.

General Education Competency: Writing

Provides a clear, concise thesis statement

1.1.1 Statement is clear and concise
1.1.2 Statement is well reasoned
1.1.3 Statement leads to plentiful additional discussion

Provides supporting paragraphs which relate to the thesis

1.2.1 Supporting paragraphs are well reasoned
1.2.2 Supporting paragraphs clearly relate to the thesis
1.2.3 Supporting paragraphs are cohesive and logically developed

Correctly incorporates outside sources

1.3.1 Provides relevant outside sources
1.3.2 Cites outside sources correctly

Uses appropriate grammar, syntax, punctuation, and spelling

1.4.1 Writing is error free in all categories (sentence structure, punctuation, spelling and grammar)
1.4.2 Sentence structure and vocabulary are well developed and varied

General Education Competency: Oral Presentation

Provides a well organized speech with appropriate introduction and conclusion

2.1.1 Very well organized
2.1.2 Attention grabbing introduction
2.1.3 Convincing conclusion

Provides main points that are well-documented, compelling, supported with facts, developed clearly and concisely, and focused on the topic

2.2.1 All main points are well-documented and supported by numerous, compelling facts
2.2.1 Clearly and concisely presented
2.2.3 Remains focused on topic throughout entire presentation

Uses appropriate gestures, movements and eye contact

2.3.1 Excellent gestures and eye contact
2.3.2 Conversational presentation
2.3.3 Utilize note cards appropriately

Speaks clearly and understandably using standard, edited English with correct mechanics (pronunciation, sentence structure and grammar) relative to audience

2.4.1 Excellent mechanics throughout
2.4.2 Very appropriate presentation relative to audience
2.4.3 Tone is respectful and civil

Provides appropriate handouts and/or visual aids

2.5.1 Provides entire audience with useful, presentation quality handouts
2.5.2 Handouts/audiovisual aids contain appropriate amount of information
2.5.3 Grammatically correct material

General Education Competency: Information Technology

Demonstrates basic computer and operating skills

3.1.1 Access and change computer setting under Control Panel
3.1.2 Navigate file directory structures and paths
3.1.3 Perform file management tasks (select, copy, rename and/or delete files)
3.1.4 Create, save, open, and print a document from some application
3.1.5 Navigate and locate information from Windows Help

Performs core tasks of Microsoft Office applications

3.2.1 Format a document and how to use page layout, e.g., headers, footer, page breaks, bullets, etc.
3.2.2 Create tables, charts, graphs and/or formulas
3.2.3 Import and sort data and/or images in to a document and format them appropriately
3.2.4 Demonstrate techniques for copying, cutting and pasting text and/or images with a document
3.2.5 Review a document using tools: spelling, grammar, word count, thesaurus

Uses a search engine to access, navigate and evaluate information on the internet

3.3.1 Retrieve information from an internet search engine
3.3.2 Evaluate and rank sources of information for validity
3.3.3 Select, copy and paste information retrieved from the internet College database

Uses email with appropriate etiquette

3.4.1 Open, create and/or send email with attachments
3.4.2 Demonstrates appropriate email etiquette

General Education Competency: Mathematical Reasoning

Constructs and/or analyzes numerical or graphical representations of data

4.1.1 A correct solution using an appropriate strategy is given
4.1.2 Descriptions of the results are complete and coherent

Simplifies, evaluates, and/or solves various equations and/or formulas

4.2.1 Demonstrates complete understanding of the problems with correct solutions
4.2.2 Answers are interpreted correctly, with appropriate labels
4.2.3 Correctly identifies units and performs conversions

Formulates and communicates mathematical explanations

4.3.1 Gives a complete response with clear explanations
4.3.2 Communicates effectively to the intended audience; demonstrates complete understanding of the mathematical ideas and processes

General Education Competency: Scientific Reasoning

Problem is recognized and investigative question is formulated

5.1.1 Problem is recognized and explained in detail
5.1.2 Investigative question is clearly formulated

Reasonable, testable hypothesis is presented

5.2.1 Hypothesis is reasonable, clearly stated, and fully explains question

Prediction is formulated as logical consequence of the hypothesis

5.3.1 Prediction is logical and fully explained

Data/observations to test hypothesis are gathered or compiled

5.4.1 High quality data and /or high quantity of suitable data gathered and presented professionally (list or table)

Formulation of a conclusion

5.5.1 Conclusion is logical and well formulated
5.5.2 Conclusion explains in detail the degree of correctness of the hypothesis and identifies further avenues of testing, or formulates new hypothesis

General Education Competency: Critical Thinking

Identify and gather

6.1.1 Asks insightful questions
6.1.2 Critiques content
6.1.3 Examines inconsistencies

Analyze and evaluate

6.2.1 Analyzes and evaluates thoroughly
6.2.2 Uses reasonable judgment
6.2.3 Critically discriminates between good and bad information

Synthesize and formulate conclusion

6.3.1 Discusses issues thoroughly and argues succinctly
6.3.2 Assimilates information
6.3.3 Justifies conclusion

STUDENT LEARNING ASSESSMENT PROGRAM REPORTS

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
ANIMAL SCIENCE
2013-2014

The Animal Science program provides opportunity and instruction towards employment as well as continuing education opportunities at the university level. Mesalands Community College, through its Animal Science Program, starts students on the pathway towards a variety of careers which are available in the field of animal science. From feed or agricultural medical sales to livestock nutritionist, buyer, handler and manager, the field of animal science offers a variety of prospective career paths.

The Animal Science program at Mesalands Community College provides educational options in either equine science or beef science.

1) Equine Science (horse science) involves multiple careers in the equine industry. Whether your interest is to work in a large stable, on a breeding farm or to have your own horses, having a background in equine science provides the foundation of sound equine management practices.

   The Equine Science option consists of three parts: Animal Science department core classes, Equine Science classes, and the general education required classes. The combination of these courses provides a comprehensive educational experience for many entry level positions in the equine industry.

2) Beef Science involves careers ranging from livestock exchange personnel to feed sales to farm/ranch managers. All segments of the beef industry from breeding and birth to slaughter and food sales create the need for knowledgeable people to be responsible for maintaining industry standards.

   The Beef Science option in Animal Science includes three parts of the curriculum: the Animal Science department core classes, the Beef Science option classes and the general education course requirements. The Beef Science option classes emphasize nutrition and beef production.

Program Objectives

Upon completion of the Animal Science Associate Degree Program:

1. The student will recognize, demonstrate, and explain the function and role of livestock within the agricultural and food industry.

2. The student will recognize and evaluate the use, structure, and function of livestock for various uses, as well as present their findings in a speech, such as a set of reasons.

3. The student will apply sound financial and management practices as well as principles utilized in the agricultural industry.

4. The Equine Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the horse industry along with aptitude to critically evaluate industry issues.

5. The Beef Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the beef cattle industry along with aptitude to critically evaluate industry issues.

General Education Competencies

Upon completion of the Animal Science Associate Degree Program and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).

2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Animal Science assessment plan is in its fifth year and is addressed via a plan→do→study→adjust cycle that begins every fall term and follows one Animal Science cohort from first term through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. The student will recognize, demonstrate, and explain the function and role of livestock within the agricultural and food industry.	• Written Exams • Writing Assignment (2-5 pages) • Oral Presentation • Organized Class Notebook • CAT • Oral Vocabulary Quiz • Laboratory Experiments	• ANSC 100 • RGSC 100 • ANSC 150 • ANSC 170 • ANSC 245 • ANSC 230 • ANSC 151 • ANSC 224 • ANSC 275 • ANSC 255
2. The student will recognize and evaluate the use, structure, and function of livestock for various uses, as well as present their findings in a speech, such as a set of reasons.	• Written Exams • Writing Assignment (2-5 pages) • Oral Presentation • Organized Class Notebook • CAT • Oral Vocabulary Quiz • Poster Presentation – Anatomy of Digestion	• ANSC 100 • RGSC 100 • ANSC 141 • ANSC 150 • ANSC 170 • ANSC 245 • ANSC 230 • ANSC 151 • ANSC 224 • ANSC 275 • ANSC 255
3. The student will apply sound financial and management practices as well as principles utilized in the agricultural industry	• Written Exams • Writing Assignment (2-5 pages) • Oral Presentation • Organized Class Notebook • CAT	• ACS 100 • ANSC 100 • ABM 162 • ANSC 170 • ABM 264 • ANSC 245 • ANSC 230 • ABM 265 • ANSC 224 • ANSC 275 • BUS 221 • ANSC 255
4. The Equine Science student will demonstrate a broad-based understanding of biological and management principles and develop	• Written Exams • Writing Assignment (2-5 pages) • Oral Presentation • Organized Class Notebook	• ANSC 100 • RGSC 100 • ABM 162 • ANSC 150 • ANSC 170 • ABM 264

the ability to incorporate the use of these principles into the horse industry along with aptitude to critically evaluate industry issues.	• CAT • Oral Vocabulary Quiz • Pre/Post Test • Oral and Written Reasons – Livestock Judging • Poster Presentation – Anatomy of Digestion	• ANSC 245 • ANSC 230 • ANSC 151 • ANSC 224 • ANSC 275
5. The Beef Science student will demonstrate a broad-based understanding of biological and management principles and develop the ability to incorporate the use of these principles into the beef cattle industry along with aptitude to critically evaluate industry issues.	• Written Exams • Writing Assignment (2-5 pages) • Oral Presentation • Organized Class Notebook • CAT • Oral Vocabulary Quiz • Pre/Post Test • Oral & Written Reasons – Livestock Judging • Poster Presentation – Anatomy of Digestion	• ANSC 100 • RGSC 100 • ABM 162 • ANSC 150 • ANSC 170 • ABM 264 • ANSC 245 • ANSC 230 • ABM 265 • ANSC 275 • ANSC 255

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: **Written Exam Scores** – Mid Term & Final (Multiple Choice, Fill-In-the-Blank, Matching, Short Answer)
Program Objective(s): 1, 2, 3 ,4 ,5
Goal Results: 70% pass rate

Written Tests – Mid Term Scores 2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ANSC 100	3	3	100% (Mean = 88%)
ANSC 150	2	2	100% (Mean = 86%)
ANSC 170	2	2	100% (Mean = 90%)
ANSC 230	2	2	100% (Mean = 92 %)
ANSC 245	6	5	83% (Mean = 80.5%)
ANSC 255	3	3	100% (Mean = 92%)
ANSC 275	7	6	85% (Mean = 88%)

Written Tests – Final Exam Scores 2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ANSC 100	3	3	100% (Mean = 85%)
ANSC 150	2	2	100% (Mean = 87%)
ANSC 170	2	2	100% (Mean = 94%)
ANSC 230	2	2	100% (Mean = 89%)
ANSC 245	6	4	66% (Mean = 82%)
ANSC 255	3	3	100% (Mean = 89%)
ANSC 275	7	7	100% (Mean = 86%)

Measurement Tool: **Pre/Post Test** – ANSC 141 Horsemanship Written, Oral, Hands-On Application with live horse

Program Objective(s): 1, 2 ,3 ,4

Goal Results: 70% pass rate

Pre-Test Results 2013-2014			
Course	**# of Students Attempting (Pre- Test)**	**# Passing (Pre-Test)**	**% Passing (Pre-Test)**
ANSC 141	8	3	37.5% (Mean 54%)
Post-Test Results 2013-2014			
Course	**# of Students Attempting (Post- Test)**	**# Passing (Post-Test)**	**% Passing (Post-Test)**
ANSC 141	8	8	100% (Mean 85 %)

Measurement Tool: **Oral and Written Reasons** – Livestock Judging-ANSC 170

- Place a class of 4 livestock animals.
- Write a 2-minute set of reasons to defend placing
- Give an oral presentation of written reasons.

Program Objective(s): 1, 2, 4, 5

Goal Results: 70% pass rate (50 points = maximum score/class)

Oral Reasons – Livestock Judging 2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing Oral**
ANSC 170	2	2	100% (Mean score = 42)

Written Reasons – Livestock Judging 2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing Written**
ANSC 170	2	2	100% (Mean score = 45)

Measurement Tool: **Organized Class Notebook** –
Collection of: homework, quizzes, hand-outs, tables, and exams for student reference. Must be organized and neat.

Program Objective(s): 1, 2, 3, 4 ,5
Goal Results: 70% pass rate (10pts maximum)

Organized Class Notebook – Livestock Judging 2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing Written**
ANSC 255	3	2	66% (Mean score = 8)
ANSC 275	7	5	71% (Mean score = 7)

Measurement Tool: **Poster Presentation** –
ANSC 275
Descriptive poster of the digestion & absorption of nutrients in various livestock species.

Program Objective(s): 2, 4, 5
Goal Results: 70% pass rate

Poster Presentation 2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing Written**
ANSC 275	7	6	86% (Mean score = 91%)

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
Communication 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• ENG 299 Capstone • CAAP • CAT • Class Presentation • Class Writing Assignment	• ACS 100 • ANSC 100 • RGSC 100 • ANSC 141 • ANSC 150 • ANSC 170 • ANSC 245 • ANSC 230 • ANSC 151 • ANSC 224 • ANSC 275 • ANSC 255 • COM 102 • CIS 101 • ENG 102 • Lab Sciences
Quantitative and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• ENG 299 Capstone • CAAP • Class Exercises • Class Examinations	• ANSC 100 • RGSC 100 • ANSC 141 • ANSC 150 • ANSC 170 • ANSC 245 • ANSC 230 • ANSC 151 • ANSC 224 • ANSC 275 • ANSC 255 • Lab Sciences
Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information.	• ENG 299 Capstone • CAAP • Class Exercises • Class Examinations	• ACS 100 • ANSC 100 • RGSC 100 • ANSC 141 • ANSC 150 • ANSC 170

9. Evaluate and present well-reasoned arguments.		• ANSC 245 • ANSC 230 • ANSC 151 • ANSC 224 • ANSC 275 • ANSC 255 • Lab Sciences • Social Sciences/ Humanities Elective

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: Oral Presentation
College Rubric
*Aggregate of ANSC courses
2013-2014

General Education Objective(s): 2

Goal Results: 90% "Excellent(4)"/"Proficient(3)"/ "Adequate(2)"

Legend: Com 102 (No Com102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 2.1.1	7(6)	7(5)	5	
• 2.1.2	5(5)	10(6)	3	
• 2.1.3	6(4)	10(7)	2	
• 2.2.1	3(7)	12(3)	3	
• 2.2.2	5(5)	9(5)	4	
• 2.2.3	7(9)	9	2	
• 2.3.1	6(6)	8(3)	5(1)	
• 2.3.2	7(8)	9(1)	3	(1)
• 2.3.3	10(2)	6	3	
• 2.4.1	4(3)	6(7)	4	
• 2.4.2	15(10)	4		
• 2.4.3	12(9)	5	2	
• 2.5.1	7(1)	9	2	
• 2.5.2	11(1)	6	1	
• 2.5.3	7(1)	1(1)	3	1

Measurement Tool: Critical Thinking College Rubric *Aggregate of ANSC courses 2013-2014

General Education Objective(s): 6

Goal Results: 90% “Excellent(4)”/“Proficient(3)”/ “Adequate(2)”

Legend: Laboratory Science(No Lab Sci)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 6.1.1	8	16	9	
• 6.1.2	7	12	11	3
• 6.1.3	7	12	11	2
• 6.2.1	9	15	9	
• 6.2.2	12	12	9	
• 6.2.3	13	13	7	
• 6.3.1	12	14	7	
• 6.3.2	6	15	11	1
• 6.3.3	8	12	12	1

Measurement Tool: Writing Across the Curriculum College Rubric *Aggregate of ANSC courses 2013-2014

General Education Objective(s): 1

Goal Results: 90% “Excellent”/“Proficient”/ “Adequate”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 1.1.1	8	11(5)	5(2)	2
• 1.1.2	5(1)	16(4)	4(2)	1
• 1.1.3	8(1)	8(4)	9(2)	
• 1.2.1	7(1)	12(4)	6(2)	1
• 1.2.2	10	12(3)	3(4)	
• 1.2.3	6(1)	12(3)	7(3)	1
• 1.3.1	5	9(3)	8(2)	3(2)
• 1.3.2	1	8(1)	13(3)	3(3)
• 1.4.1	1	15(2)	9(4)	1(1)
• 1.4.2	3	16(3)	7(3)	

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objective(s): 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-2014	5(10.4%)	5(42.2%)	5(22.6%)	5(16.6%)	5(13.8%)
2012-2013	3(59.3%)	3(53.3%)	3(57.3%)	3(58.3%)	3(57.7%)
2011-2012	2(21%)	2(45.5%)	2(41%)	2(43%)	2(50%)
2010-2011	7(39.6%)	1(54%)	7(30.7%)	7(32.4%)	7(43%)
2009-2010	2(23%)	1(85%)	3(33%)	2(31%)	2(36%)

Measurement Tool: ENG 299 Capstone Portfolio Course
General Education Objective(s): 1-6
Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

General Education Competency: Writing

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 1.1.1	2		2	
• 1.1.2	2		2	
• 1.1.3	2		2	
• 1.2.1	2		2	
• 1.2.2	2		2	
• 1.2.3	2		2	
• 1.3.1	2			2
• 1.3.2	2			1
• 1.4.1	1		1	2
• 1.4.2	1		2	1

General Education Competency: Oral Presentation

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 2.1.1	1	1		
• 2.1.2	1		1	
• 2.1.3	1		1	
• 2.2.1	1	1		
• 2.2.2	1	1		

• 2.2.3	1	1		
• 2.3.1	1	1		
• 2.3.2	1	1		
• 2.3.3	2			
• 2.4.1	1	1		
• 2.4.2	1	1		
• 2.4.3	1	1		
• 2.5.1				2
• 2.5.2				1
• 2.5.3	1			1

General Education Competency: Information Technology

Year	Pass (4)	Fail (1)
2013-2014		
• 3.1.1	1	4
• 3.1.2	1	4
• 3.1.3	2	3
• 3.1.4	2	3
• 3.1.5	1	4
• 3.2.1	3	1
• 3.2.2	1	3
• 3.2.3	3	1
• 3.2.4	4	
• 3.2.5	2	2
• 3.3.1	3	2
• 3.3.2	1	4
• 3.3.3	1	4
• 3.4.1	1	4
• 3.4.2	1	4

General Education Competency: Mathematical Reasoning

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 4.1.1	2	1	1	1
• 4.1.2	1	1	2	1
• 4.2.1	2	2	1	
• 4.2.2	1	3	1	
• 4.2.3				
• 4.3.1	1	3	1	
• 4.3.2	1	2	2	

General Education Competency: Scientific Reasoning

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 5.1.1	1		4	
• 5.1.2	1	1	2	1
• 5.2.1	1	3		1
• 5.3.1	1	1	2	1
• 5.4.1	1	2		1
• 5.5.1	1	3		1
• 5.5.2	1		2	2

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMROVEMENT

ANALYSIS

Problem Area #1

One area that needs improvement is the number of students in each class. Some of the assessment percentages seen in this report are based on three students in one class. The range of performance or statistics is not highly variable with such a small class size.

Goal

Ideally, there should be at least ten students in each Animal Science class.

Action Plan

The Animal Science program at Mesalands Community College needs more exposure and heavy recruiting throughout the state of New Mexico and beyond. Within the next year, at least five recruiting trips to agriculture programs in the state of New Mexico should be made. Local schools such as Logan, San Jon, Mosquero, Roy, Santa Rosa should be visited. Also, we should encourage these schools to visit the campus at Mesalands Community College to see the facilities that we currently have in place.

Results

To be presented in the 2014-15 program report. The results of these visits and heavy recruiting may not be seen until 2015-16 reports.

ANALYSIS

Problem Area #2

Though our classroom facilities at Mesalands Community College are outstanding, one the area that could be improved is hands-on application with livestock and field trip opportunities.

Goal

The goal is to work with local cattle, sheep, and horse producers to get students directly into the agriculture field and out of the classroom occasionally. Students will be able to communicate directly with producers, take written notes, and gather data from local livestock experts.

Action Plan

At least five field trips will be planned for the upcoming school year including: T4 Ranch, Singleton Ranches, NMSU Livestock Research Facility, Franklin Farms, Bidegain Farms, and the Tucumcari Feedlot.

It is important to build local connections and plan opportunities for students to gain hands-on instruction in the community. The NMSU Livestock Research Center in Tucumcari is a great place for our students to work with cattle and be involved in animal research. Students will gather statistical data and learn about feeding and selling cattle at this facility. This hands on learning will help students to understand the course objectives. Learning will measured through students projects, quizzes, and exams.

Results

To be presented in the 2014-15 program report.

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
BUSINESS ADMINISTRATION
2013-2014

The Business Department at Mesalands Community College offers students a wide range of programs that award associate degrees. Associate of Applied Science degrees are awarded to students completing the degree plan requirements in our Business Administration program. These students are prepared to enter the workforce. An Associate of Arts degree is awarded to students who complete the Business Administration degree with plans to pursue a four-year degree.

The core courses of the Business Administration program allow students to acquire skills in accounting, business communications, business law, computers, economics, and management. Graduates of the Business Administration program are exposed to a variety of disciplines and given the opportunity to improve and enhance their interpersonal skills, critical thinking and problem solving skills.

Program Objectives
Upon completion of the Business Associate Degree Programs in Business Administration the student will:

1) Apply the inter-relationship between concept and theory presented and be able to apply concepts in a real world environment.
2) Apply scanning principles to the environment in order to aid in analyzing and anticipating changes in the business marketplace and adjust accordingly.
3) Demonstrate sound behavior and presentation as key indicators to society as to one's ethical position and professionalism.
4) Recognize the importance of diversity in our society and respect and support diversity in the workplace.

General Education Competencies

Upon completion of the Business Associate Degree Programs and in addition to the above mentioned program objectives:

1) Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2) Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

3) Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Business Administration assessment plan is in its fifth year and follows one Business cohort from first semester (fall) through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. Understand the inter-relationship between concept and theory presented and be able to apply concepts in a real world environment	• ENG 299 • Course exams • Student provides examples illustrating ability to apply theory in writing assignments • Business plan and professional documents (BUS221)	• BUS 101 • BUS 221 • ACCT 210
2. Be adept at scanning the environment in order to aid in analyzing and anticipating changes in the business marketplace and adjust accordingly	• Course exams • Research papers illustrating ability to apply concepts and utilize research • Business Plan • Marketing in the Media presentations (current events reported and applied to concepts)	• BUS 221 • MGT 113 • MKT 115 • MGT 115

3. Understand how one's behavior and presentation are key indicators to society as to one's ethical position and professionalism	• And use of oral presentation rubric • Research papers supporting the importance of presentation	• BUS 221 • MKT 115 • MGT 113 • MGT 115
4. Recognize the importance of diversity in our society and respect and support diversity in the workplace.	• Case studies	• MGT 253 • MGT 113 • BUS 101

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: BUS 221 Final Presentation
Program Objective: 1
Goal Results: 90% pass rate; cut score is 75%[1] (80% for 2013-14)

Reporting Period	# of Students Attempting	# Passing	% Passing
2009-2010	3	3	100% (mean = 88%)
2010-2011	7	7	100% (mean = 95%)
2011-2012	9	9	100% (mean=86.6%)
2012-2013	6	6	100% (mean=89.1%)
2013-2014	5	6 (4)	100% (mean=81%)

Measurement Tool: MGT 115 Business Plan
Program Objective: 2
Goal Results: 70% pass rate; cut score is 70%[2]

Reporting Period	# of Students Attempting	# Passing	% Passing
2009-2010	9	6	67% (mean = 78%)
2010-2011	15	13	87% (mean = 84%)
2011-2012	18	10	56%(mean=75.8%)
2012-2013	14	9	64%(mean=77.3%)
2013-2014	9	6	66% (mean=74%)

[1] After evaluation of the first year's results, adjustments were made to reflect more realistic expectations. BUS 221 Final Presentation pass rate goal was lowered from one hundred percent to ninety percent and the cut score was raised from seventy percent to seventy-five percent.
[2] Pass rate goal lowered from one hundred percent to seventy percent; cut score unchanged.

Measurement Tool: ECON 252 Final Exam
Program Objective: 3
Goal Results: 70% pass rate; cut score is 70%[3]

Reporting Period	# of Students Attempting	# Passing	% Passing
2009-2010	10	10	100% (mean = 85%)
2010-2011	6	6	100% (mean = 89%)
2011-2012	11	11	100%(mean=91.2%)
2012-2013	16	16	100% (mean=80.1%)

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the general education competencies are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which General Education Competencies Are Presented and/or Measured
Communication 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• CAAP • CAT • Class Presentations • Exams	• ACS 100 • COM 102 • CIS 101 • ENG 102 • ENG 104 • ENG 299 • Lab Science Elective • Social Sciences/ Humanities Elective
Mathematical and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• CAAP • Exams • Discussion Posts • CATs	• BUS 103 • MATH 101 • ACCT 111 • ECON 251 • ECON 252 • ENG 299 • Lab Science Elective

[3] Pass rate goal lowered from one hundred percent to seventy percent; cut score unchanged.

Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned arguments.	• CAAP • Research paper	• ACS 100 • CIS 101 • COM 102 • ECON 251 • ECON 252 • ENG 299

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objective(s): 1, 4-9
Goal Results: 50% (level of national average)
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-14	5(23.6%)	5(46.6%)	5(34%)	5(33.0%)	5(19.6%)
2011-12	5(64.4%)	5(61%)	5(50%)	5(52.2%)	5(56%)
2010-11	6(66%)	5(70%)	6(60%)	6(70.8%)	6(82.3%)
2009-10	3(27.67%)	1(66%)	3(34.33%)	3(37.33%)	3(48%)

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

Problem Area

For the 2013-2014 year, as the result of a new faculty, many of the assignments for the classes were adjusted. Most classes included several papers and presentations of increasing difficulty, impromptu “media” overviews for the class, and a midterm over the text. It was noted that many students did not read the text past the midterm (or even glance at it) so the text exam will be placed during finals week in the future.

The major paper and presentation will be due at midterm and additional work will be required after feedback has been provided. It was noted that “final” papers were insufficient to meet academic expectations at the level expected.

Significant work in each class will attempt to move students towards an ability to utilize academic and business research to support the illustration of course concepts. Students will be taught the expectations in regards to APA format.

Goal

There will be continued emphasis on professional representations; particularly in academic writing and presentations and the utilization of research to support observations, analysis and conclusions.

Action Plan

2013-14: Classes will be adjusted for 2014-2015 to move final exam for text to finals week to encourage students to review text to the end. Presentations and papers will be moved forward from a final submission to allow for additional work to students perceived “final” paper.

Results will be reported in the 2014-2015 Plan.

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
BUSINESS OFFICE TECHNOLOGY
2013-2014

The Business Department at Mesalands Community College offers students a wide range of programs that award associate degrees. The Associate of Applied Science degree is awarded to students completing the degree plan requirements in the Business Office Technology program.

Advances in technology have increased the need for highly-skilled office employees who have the necessary training and confidence required to work with computer hardware and software, and office equipment. The Business Office Technology program has two options: General Office and Software Applications Specialist.

Program Objectives

Upon completion of the Business Office Technology Associate of Applied Science Degree Programs:

1) The student will demonstrate proficiency in the software applications most often used by industry (i.e., word processing, spreadsheet applications, database management, and presentations).
2) The student will demonstrate the ability to create and present a final presentation with supportive documents.

General Education Competencies

Upon completion of the Business Office Technology Associate of Applied Science Degree Programs and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Business assessment plan is in its fifth year and follows one Business cohort from first semester (fall) through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. The student will demonstrate proficiency in the software applications most often used by industry (i.e., word processing, spreadsheet applications, database management, and presentations).	• Capstone Portfolio • Exams	• CIS 101 • CIS 201 • CIS 202 • BUS 203 • BUS 110 • ENG 299
2. The student will demonstrate the ability to create and present a final presentation with supportive documents.	• Exams • Delivery of presentations	• ENG 102 • ENG 104 • COM 102 • BUS 221

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: CIS 101 Final Exam
Program Objective: 1
Goal Results: 100% pass rate; cut score is 70%;
% of students who enrolled that make it to final (approx. 25%)

Reporting Period	# of Students Attempting	# Passing	% Passing
2009-2010	6	6	100% (mean=91%)
2010-2011	20	20	100% (mean = 93.75%)
2011-2012	4	4	100% (mean=96.25%)
2012-2013	16	16	100% (mean=94%)
2013-2014	4	4	100% (25% of enrolled make it to final)

Measurement Tool: BUS 221 Final Presentation
Program Objective: 2
Goal Results: 100% pass rate; cut score is 70%
90% pass rate; cut score is 75% (80% for 2013-14)

Reporting Period	# of Students Attempting	# Passing	% Passing
2009-2010	3	3	100% (mean=88%)
2010-2011	7	7	100% (mean = 95%)
2011-2012	9	9	100% (mean = 86.6%)
2012-2013	6	6	100% (mean=89.1%)
2013-2014	5	6 (4)	100% (m=81%)

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the general education competencies are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
Communication 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• CAAP • CAT • Class Presentations • Exams	• ACS 100 • COM 102 • CIS 101 • ENG 102 • ENG 104 • ENG 299 • Lab Science Elective • Social Sciences/ Humanities Elective
Mathematical and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• CAAP • Exams • Discussion Posts • CATs	• BUS 103 • ENG 299 • MATH 101 • ACCT 110 • Lab Science Elective
Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned arguments.	• CAAP • Research paper	• ACS 100 • CIS 101 • COM 102 • ENG 299

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objective(s): 1, 4-9
Goal Results: 50% (level of national average)
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-14	5(23.6%)	5(46.6%)	5(34%)	5(33.0%)	5(19.6%)
2011-12	5(64.4%)	5(61%)	5(50%)	5(52.2%)	5(56%)
2010-11	6(66%)	5(70%)	6(60%)	6(70.8%)	6(82.3%)
2009-10	3(27.67%)	1(66%)	3(34.33%)	3(37.33%)	3(48%)

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Problem Area

As a new faculty for the program, similar concerns as previous years have been noted. Lackadaisical approach to assignments, text content and due dates cause many students to drop from the program (thereby not being “counted” in the final assessment goals). Continued focus on academic integrity, the value of education and reinforcing the same message across the college while opening up communication channels between departments might help. It seems that the culture of mediocrity will need to be changed.

Goal

To reinforce the need for campus wide commitment to some common goals: to be competitive on a national scale (as opposed to Tucumcari). To recognize the value of education and professionalism to aid in meeting goals.

Action Plan

No action taken

Results

To be noted for next cycle

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
EARLY CHILDHOOD EDUCATION
2013-2014

What early childhood professionals know and can do significantly influence children's development, learning, and success in school. Since the period of early childhood spans the first eight years of a child's life, these early care and education professionals are being prepared to work in varied settings that include child care centers, family child care homes, Head Start, early intervention programs, public and private schools through third grade, preschools, and family support programs. Professionals may refer to themselves as teachers, educational assistants, assistant teachers, teacher aides, caregivers, or providers. In the final analysis, they all teach and they all provide care.

Program Objectives

Upon completion of the Early Childhood Education Associate Degree Program:

1. The student will incorporate understanding of developmental stages, processes, and theories of growth, development, and learning into developmentally appropriate practice.

2. The student will demonstrate knowledge of relevant content for young children and developmentally appropriate ways of integrating content into teaching and learning experiences for children from birth through age eight.

3. The student will demonstrate effective written and oral communication skills when working with children, families, and early care, education, and family support professionals.

General Education Competencies

Upon completion of the Early Childhood Education Associate Degree Program and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Early Childhood Education assessment plan is in its fifth year and is addressed via the plan→do→study→adjust cycle that begins every fall term and follows one Early Childhood cohort from first term through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. The student will incorporate understanding of developmental stages, processes, and theories of growth, development, and learning into developmentally appropriate practice.	• Course Projects Including Teaching Assignments, Lesson Plans, Observations, Interviews, Research Papers, and Practicums • Written Tests over Course Content	• ECE 103 • ECE 104 • ECE 106 • ECE 107 • ECE 109 • ECE 111 • ECE 112 • ECE 113 • ECE 114 • ECE 115 • ECE 265
2. The student will demonstrate knowledge of relevant content for young children and developmentally appropriate ways of integrating content into teaching and learning experiences for children from birth through age eight.	• Written Tests over Course Content • Course Projects Including Teaching Assignments, Lesson Plans, Observations, Interviews, Research Papers, and Practicums	• ECE 103 • ECE 104 • ECE 106 • ECE 107 • ECE 109 • ECE 111 • ECE 112 • ECE 113 • ECE 114 • ECE 115 • ECE 265

3. The student will demonstrate effective written and oral communication skills when working with children, families, early care, education, and family support professionals.	• Written Tests Over Course Content • Assignments That Require Students To Exhibit Written and Oral Communication Skills. These Will Be Graded Using the Oral and Writing Rubrics • ENG 299 • CAAP	• ECE 103 • ECE 104 • ECE 106 • ECE 107 • ECE 109 • ECE 111 • ECE 112 • ECE 113 • ECE 114 • ECE 115 • ECE 265

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: **Course Project**
Program Objectives: **1,2,3**
Goal: **70% Pass Rate, Mean Score of 80%**

Course Project 2009-2010				
Course	**Project**	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 103	Paper	10	10	100%(Mean=91%)
ECE 104	Paper	15	12	80%(Mean=68%)
ECE 106	Interview	3	3	100%(Mean=93%)
ECE 107	Assessment	17	15	88%(Mean=77%)
ECE 109	Teaching	13	12	92% (Mean=86%)
ECE 111	Teaching	13	13	100%(Mean=86%)
ECE 112	Practicum	13	12	92%(Mean=87%)
ECE 113	Paper	2	2	100%(Mean=91%)
ECE 114	Teaching	16	15	94%(Mean=90%)
ECE 115	Practicum	16	15	94%(Mean=85%)
ECE 265	Paper	4	4	100%(Mean=90%)

Course Project 2010-2011				
Course	**Project**	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	Paper	15	13	87% (Mean 73%)
ECE 106	Interview	12	9	75% (Mean 69%)
ECE 113	Paper	12	9	75% (Mean 63%)
ECE 265	Paper	15	13	87% (Mean 78%)
Course Project 2011-2012				
Course	**Project**	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	Paper	19	14	74% (Mean 66%)
ECE 107	Assessment	8	7	88% (Mean 84%)
ECE 109	Teaching	11	9	82% (Mean 80%)
ECE 111	Teaching	13	12	92% (Mean 91%)
ECE 112	Practicum	13	12	92% (Mean 91%)
ECE 114	Teaching	12	8	67% (Mean 64%)
ECE 115	Practicum	12	7	58% (Mean 56%)
Course Project 2012-2013				
Course	**Project**	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	Paper	13	9	69% (Mean 69%)
ECE 106	Interview	6	5	83% (Mean 92%)
ECE 265	Paper	10	8	80% (Mean 64%)
Course Project 2013-2014				
Course	**Project**	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	Paper	15	12	80% (Mean 83%)
ECE 107	Assessment	6	4	67% (Mean 59%)
ECE 109	Teaching	6	5	83% (Mean 79%)
ECE 111	Teaching	2	2	100% (Mean 92%)
ECE 112	Practicum	2	2	100% (Mean 90%)
ECE 114	Teaching	3	2	67% (Mean 70%)
ECE 115	Practicum	3	2	67% (Mean 69%)

Measurement Tool: **Written Tests over Course Content**
Program Objectives: **1,2,3**

Goal: **70% Pass Rate, 80% Mean**

Written Tests 2009-2010			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 103	10	10	100% (Mean=91%)
ECE 104	15	12	80%(Mean=67%)
ECE 106	3	3	100%(Mean=93%)
ECE 107	17	15	88%(Mean=77%)
ECE 109	13	12	92% (Mean=86%)
ECE 111	13	13	100%(Mean=86%)
ECE 112	13	12	92%(Mean=87%)
ECE 113	2	2	100%(Mean=91%)
ECE 114	16	15	94%(Mean=90%)
ECE 115	16	15	94%(Mean=85%)
ECE 265	4	4	100%(Mean=90%)
Written Tests 2010-2011			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	15	13	87% (Mean 64%)
ECE 106	12	10	75% (Mean 73%)
ECE 113	12	9	75% (Mean 65%)
ECE 265	15	13	87% (Mean 87%)
Written Tests 2011-2012			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	12	9	68% (Mean 56%)
ECE 107	8	7	88% (Mean 76%)
ECE 109	6	5	82% (Mean 79%)
ECE 111	13	12	92% (Mean 83%)
ECE 112	13	12	92% (Mean 88%)
ECE 114	12	8	67% (Mean 56%)
ECE 115	12	7	67% (Mean 52%)
Written Tests 2012-2013			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	13	9	69% (Mean 58%)
ECE 106	6	5	83% (Mean 92%)
ECE 113	5	4	80% (Mean 93%)
ECE 265	10	8	80% (Mean 64%)
Written Tests			

2013-2014			
Course	**# of Students Attempting**	**# Passing**	**% Passing**
ECE 104	15	12	80% (Mean 62%)
ECE 107	6	4	67% (Mean 62 %)
ECE 109	6	5	83% (Mean 80%)
ECE 111	2	2	100% (Mean 92%)
ECE 112	2	2	100% (Mean 92%)
ECE 114	3	2	67% (Mean 76%)
ECE 115	3	2	67% (Mean 74%)

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which General Education Competencies Are Presented and/or Measured
Communication 1. Writing 2. Oral Presentation 3. Information Technology	• ENG 299 • CAAP • CAT • Class Presentations • Writing Across Curriculum Rubric • Critical Thinking Rubric • Oral Presentation Rubric	• ECE 103 • ECE 104 • ECE 106 • ECE 107 • ECE 109 • ECE 111 • ECE 112 • ECE 113 • ECE 114 • ECE 115 • ECE 265 • ENG 102 • ENG 104 • COM 102
Mathematical and Scientific Reasoning 4. Mathematical Reasoning 5. Scientific Method	• ENG 299 • CAAP • Laboratory Exercise • Laboratory Report	• MATH 107 • MATH 110 • MATH 261 • Required Science Classes

Critical Thinking 6. Critical Thinking	• ENG 299 • CAAP • Laboratory Exercise	• ECE 103 • ECE 104 • ECE 106 • ECE 107 • ECE 109 • ECE 111 • ECE 112 • ECE 113 • ECE 114 • ECE 115 • ECE 265 • Required Science Classes

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objectives: 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2009-2010	1(39%)		1 (53%)		

Measurement Tool: Writing Across the Curriculum College Rubric

General Education Objective(s): 1
Program Objectives: 3
Goal Results: 90% “Excellent (4)”, ”Proficient (3)”, or ”Adequate (2)”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2009-2010 1.1.1 1.1.2 1.1.3	16	16(23)	1(5)	
1.2.1 1.2.2 1.2.3	18(6)	12(15)	3(7)	
1.3.1 1.3.2	6	21(18)	5(8)	1(2)
1.4.1 1.4.2	16(1)	15(13)	2(13)	1(1)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2010-2011				
• 1.1.1	6	20 (5)	3 (3)	
• 1.1.2	6	20 (5)	3 (3)	
• 1.1.3	6	20 (5)	3 (3)	
• 1.2.1	7	16 (3)	6 (4)	
• 1.2.2	7	16 (3)	6 (4)	
• 1.2.3	7	16 (3)	6 (4)	
• 1.3.1	5	3 (1)	9 (4)	2 (3)
• 1.3.2	5	3 (1)	9 (4)	2 (3)
• 1.4.1	5	21 (3)	3 (5)	
• 1.4.2	5	21 (3)	3 (5)	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 1.1.1	26 (2)	24 (4)	4 (3)	1
• 1.1.2	26 (2)	24 (4)	4 (3)	1
• 1.1.3	26 (2)	24 (4)	4 (3)	1
• 1.2.1	28 (1)	24 (5)	3 (2)	1
• 1.2.2	28 (1)	24 (5)	3 (2)	1
• 1.2.3	28 (1)	24 (5)	3 (2)	1

• 1.3.1	24 (3)	19 (2)	9 (2)	3 (2)
• 1.3.2	24 (3)	19 (2)	9 (2)	3 (2)
• 1.4.1	20 (2)	33 (4)	2 (3)	
• 1.4.2	20 (2)	33 (4)	2 (3)	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 1.1.1	7 (2)	4(11)	(1)	
• 1.1.2	7 (2)	4 (11)	(1)	
• 1.1.3	7 (2)	4 (11)	(1)	
• 1.2.1	6 (2)	5 (11)	(1)	
• 1.2.2	6 (2)	5 (11)	(1)	
• 1.2.3	6 (2)	5 (11)	(1)	
• 1.3.1	3 (2)	2 (5)	2 (1)	1 (5)
• 1.3.2	3 (2)	2 (5)	2 (1)	1 (5)
• 1.4.1	4 (2)	6 (8)	1 (4)	
• 1.4.2	4 (3)	6 (7)	1 (4)	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2013-2014				
• 1.1.1	6 (2)	10 (3)	2 (2)	(1)
• 1.1.2	6 (2)	10 (3)	2 (2)	(1)
• 1.1.3	6 (2)	10 (3)	2 (2)	(1)
• 1.2.1	5 (2)	12 (3)	2 (2)	
• 1.2.2	5 (2)	12 (3)	2 (2)	
• 1.2.3	5 (2)	12 (3)	2 (2)	
• 1.3.1	5 (2)	4 (3)	2	3 (2)
• 1.3.2	5 (2)	4 (3)	2	3 (2)
• 1.4.1	5 (1)	10 (2)	6 (3)	
• 1.4.2	5 (1)	10 (2)	6 (3)	

Measurement Tool: Oral Presentation College Rubric
General Education Objective(s): 2
Program Objective (s): 3
Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”
Legend: COMM 102(No COMM 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 2.1.1	2	7		
• 2.1.2	2	7		
• 2.1.3	2	7		
• 2.2.1	1	7	1	
• 2.2.2	1	7	1	
• 2.2.3	1	7	1	
• 2.3.1	5	3	1	
• 2.3.2	5	3	1	
• 2.3.3	5	3	1	
• 2.4.1	7	2		
• 2.4.2	7	2		
• 2.4.3	7	2		
• 2.5.1	1		8	
• 2.5.2	1		8	
• 2.5.3	1		8	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 2.1.1	1	21	2	
• 2.1.2	1	21	2	
• 2.1.3	1	21	2	
• 2.2.1	9	14	1	
• 2.2.2	9	14	1	
• 2.2.3	9	14	1	
• 2.3.1	4	14	6	
• 2.3.2	4	14	6	
• 2.3.3	4	14	6	
• 2.4.1	7	17		
• 2.4.2	7	17		
• 2.4.3	7	17		
• 2.5.1	12	5	3	4
• 2.5.2	12	5	3	4
• 2.5.3	12	5	3	4

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 2.1.1	1 (1)	4 (2)		
• 2.1.2	1 (1)	4 (2)		
• 2.1.3	1 (1)	4 (2)		
• 2.2.1	1	5 (1)	1	
• 2.2.2	1	5 (1)	1	
• 2.2.3	1	5 (1)	1	
• 2.3.1	4	3	1	
• 2.3.2	4	3	1	
• 2.3.3	4	3	1	
• 2.4.1	3	3 (2)		
• 2.4.2	3	3 (2)		
• 2.4.3	3	3 (2)		
• 2.5.1	4	(1)	2	(1)
• 2.5.2	4	(1)	2	(1)
• 2.5.3	4	(1)	2	(1)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2013-2014				
• 2.1.1	1	8 (2)	4 (3)	
• 2.1.2	1	8 (2)	4 (3)	
• 2.1.3	1	8 (2)	4 (3)	
• 2.2.1	6	4 (2)	3 (3)	
• 2.2.2	6	4 (2)	3 (3)	
• 2.2.3	6	4 (2)	3 (3)	
• 2.3.1	7 (2)	3 (2)	3 (1)	
• 2.3.2	7 (2)	3 (2)	3 (1)	
• 2.3.3	7 (2)	3 (2)	3 (1)	
• 2.4.1	7 (2)	6 (3)		
• 2.4.2	7 (2)	6 (3)		
• 2.4.3	7 (2)	6 (3)		
• 2.5.1	5	7 (5)		1
• 2.5.2	5	7 (5)		1
• 2.5.3	5	7 (5)		1

Measurement Tool: Critical Thinking College Rubric
General Education Objective(s): 6
Program Objective: 1
Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”
Legend: Lab Science (No Lab Science)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 2.1.1	(3)	(7)	(2)	
• 2.1.2	(3)	(7)	(2)	
• 2.1.3	(3)	(7)	(2)	
• 2.2.1	(3)	(5)	(4)	
• 2.2.2	(3)	(5)	(4)	
• 2.2.3	(3)	(5)	(4)	
• 2.3.1		(7)	(5)	
• 2.3.2		(7)	(5)	
• 2.3.3		(7)	(5)	

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS:

Problem Area:

The main problem that was encountered this year was the small enrollment in my early childhood classes. This was an issue that seemed to be across the board in all departments. All of my classes had a much smaller enrollment than in previous semesters. Hopefully, numbers will be up in the coming year. I did have a few students who had to drop the early childhood classes for various reasons. Maybe those issues can be resolved and they will be back to finish their degree.

Goal:

I will continue the goal of trying to increase numbers in my program. I would like to increase the numbers this year by 20%. I also want to help students improve in writing, oral, and critical thinking skills. I plan to incorporate assignments that practice these skills in each class I teach this year. They will be assessed with the General Education Rubrics. I am also searching for new and improved methods to enhance my practicum classes.

Action:

The first step I will take is to continue to communicate with the Head Start centers and other facilities in town. I will take a flyer by each facility at the beginning of the Fall Semester and let them know what Early Childhood classes are going to be taught. I will do this with the Head Start centers and also with the Turquoise Day Care Center.

Next month, I will be meeting with the four year colleges and universities who offer a degree in Early Childhood. I presented each of them with a packet of syllabi and course materials. They will have some feedback for our program at this meeting. This is where I will try to implement any suggestions they might offer.

Results:

To be analyzed in the 2014-2015 report.

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
FARRIER SCIENCE
2013-2014

Farrier Science is primarily a self-employed field; therefore, farriers must be knowledgeable and skilled in all facets of the business. The Farrier Science degree program offers hands-on experience in horsemanship, trimming and shoeing, forging and welding. Instruction in anatomy and physiology, business management, and other aspects of horseshoeing are provided in the classroom. The degree program also offers an in-depth study of therapeutic and pathological shoeing, including the physiology, forging and application of shoes.

Program Objectives

Upon completion of an Associate Degree in Farrier Science students will:

1. Apply knowledge of the anatomy and physiology of the equine limb as it relates to a sound horse according to American Farriers Association (AFA) standards.
2. Perform and defend keg shoe modifications according to AFA standards or veterinary prescription.
3. Identify equine gaits and gait faults according to AFA standards or veterinary prescription.
4. Identify pathological conditions of the equine limb and successfully apply the appropriate therapeutic shoeing technique according to AFA standards or veterinary prescription.

General Education Competencies

Upon completion of the Associate Degree in Farrier Science and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).
3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Farrier Science assessment program is based upon the Professional Farrier's Association certification program and is designed to assess trimming and shoeing skills. In addition to testing these "hands-on" aspects of competency, the program includes written examinations designed to test comprehension of equine anatomy, physiology, and biomechanics. The test also includes sections requiring scientific reasoning skills, application of knowledge, and communication skills.

The Farrier Science assessment plan is in its fifth year and is addressed via the plan→do→study→adjust cycle that begins every fall term and follows one Farrier Science cohort from first term through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. Apply knowledge of the anatomy and physiology of the equine limb as it relates to a sound horse according to American Farrier's Association (A.F.A.) standards.	• A.F.A. Curriculum Written Tests • A.F.A. Curriculum Performance Tests • CAT • Pre/Post-Test • A & P Rubric	• ANSC 151 • FAS 111 • FAS 121 • FAS 112 • FAS 223 • FAS 224
2. Perform and defend keg shoe modifications according to A.F.A. standards or veterinary prescription.	• A.F.A. Curriculum Written Tests • A.F.A. Curriculum Performance Tests • CAT • Pre/Post-Test • LAB Practicals	• FAS 121 • FAS 131 • FAS 122 • FAS 132 • FAS 223 • FAS 233 • FAS 224
3. Identify equine gaits and gait faults according to A.F.A. standards or veterinary prescription.	• Lab Practicals • A.F.A. Curriculum Written Tests • A.F.A. Curriculum Performance Tests • CAT • Pre/Post-Test • Gaits Rubric	• FAS 111 • FAS 112 • FAS 223 • FAS 224

4. Identify pathological conditions of the equine limb and successfully apply the appropriate therapeutic shoeing technique according to A.F.A. standards or veterinary prescription.	• Lab Practical • A.F.A. Curriculum Written Tests • A.F.A. Curriculum Performance Tests • CAT • Pre/Post-Test • Oral Tests	• FAS 223 • FAS 233 • FAS 253 • FAS 224 • FAS 289

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: A.F.A. Certified Farrier Exam
Program Objective(s): 1
Goal Results: 70% pass rate

Reporting Period	# of Students Attempting	# Passing	% Passing
2013-2014	1	1	100%
2012-2013	N/A		
2011-2012	3	2	67%
2010-2011	2	2	100%
2009-2010	5	3	60%

Measurement Tool: A.F.A. Certified Farrier Exam
Program Objective(s): 2
Goal Results: 70% pass rate

Reporting Period	# of Students Attempting	# Passing	% Passing
2013-2014	1	1	100%
2012-2013	N/A		
2011-2012	3	2	67%
2010-2011	2	2	100%
2009-2010	5	4	80%

Measurement Tool: A.F.A. Certified Farrier Exam
Program Objective(s): 4
Goal Results: 70% pass rate

Reporting Period	# of Students Attempting	# Passing	% Passing
2013-2014	1	1	100%
2012-2013	N/A		
2011-2012	3	2	67%
2010-2011	2	2	100%
2009-2010	5	5	100%

Measurement Tool: A.F.A. Certified Farrier Exam
Program Objective(s): 1-4
Goal Results: 70 % pass rate

Year	# of Students Tested	# of Students Passing on First Attempt	# of Students Retested	# of Students Passing Upon Retest	Total # of Students Passing	Total % of Students Passing
2013-2014	1	1	0		1	100%
2012-2013	N/A					
2011-2012	3	2	N/A		2	67%
2010-2011	2	2	N/A		2	100%
2009-2010	5	4	N/A		4	80%
2008-2009	5	4	N/A		4	80%

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which General Education Competencies Are Presented and/or Measured
Communication 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• FAS 112 • College Rubrics • CAAP • Writing Rubric • ENG 299	• ACS 100 • COM 102 • CIS 101 • ENG 102 • Lab Science Elective • Social Sciences/ Humanities Elective • FAS 111, 112, 223, 289
Mathematical and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• FAS 112 • College Rubrics • CAAP • Critical Thinking Rubric • ENG 299	• Lab Science Elective • FAS 121, 122, 253, 224
Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned arguments.	• FAS 112 • College Rubrics • CAAP • Critical Thinking Rubric • ENG 299	• ACS 100 • Lab Science Elective • Social Sciences/ Humanities Elective • FAS 233, 289

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: Writing Across the Curriculum College Rubric FAS 112

General Education Objective(s): 1

Goal Results: 90% "Excellent"/"Proficient"/ "Adequate" ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 1.1.1	1	1	1	
• 1.1.2		2	1	
• 1.1.3	1	1	1	
• 1.2.1	2	1		
• 1.2.2	2	1		
• 1.2.3	2		1	
• 1.2.4	2		1	
• 1.3.1	2	1		
• 1.3.2		2	1	
• 1.4.1		2	1	
• 1.4.2				
2012-13				
• 1.1.1		5	2	
• 1.1.2		5	2	
• 1.1.3		5	2	
• 1.2.1		5	2	
• 1.2.2		5	2	
• 1.2.3		5	2	
• 1.3.1	1	4	2	
• 1.3.2	1	4	2	
• 1.4.1				
• 1.4.2		4	3	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 1.1.1	1(1)	1(1)	(3)	1
• 1.1.2	1(1)	1(2)	(2)	1
• 1.1.3	1(1)	1(1)	(3)	1
• 1.2.1	1(1)	1(2)	(2)	1

• 1.2.2	1(1)	1(1)	(3)	1
• 1.2.3	1(1)	1(1)	(3)	1
• 1.3.1	NA			
• 1.3.2	NA			
• 1.4.1				
• 1.4.2	2	1(2)	(2)	1
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2010-2011				
• 1.1.1	4(1)	3(4)	(2)	
• 1.1.2	2(2)	4(2)	1(3)	
• 1.1.3	1(1)	5(3)	1(3)	
• 1.2.1	2	4(4)	1(3)	
• 1.2.2	4	3(4)	(3)	
• 1.2.3	3	4(5)	2	
• 1.3.1	NA			
• 1.3.2	NA			
• 1.4.1	1	4(3)	2(4)	
• 1.4.2	2	4(3)	1(4)	

Measurement Tool: Oral Presentation College Rubric FAS 112

General Education Objective(s): 2

Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

Legend: COMM 102(No COMM 102)

Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2013-2014				
• 2.1.1		3		
• 2.1.2	1	2		
• 2.1.3	1	2		
• 2.2.1		3		
• 2.2.2		3		
• 2.2.3	1	2		
• 2.3.1		3		
• 2.3.2		3		
• 2.3.3	NA			
• 2.4.1	3			
• 2.4.2		3		
• 2.4.3		2		
• 2.5.1	NA			

• 2.5.2	NA			
• 2.5.3		3		
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 2.1.1		3		
• 2.1.2	1	2		
• 2.1.3	2	1		
• 2.2.1		3		
• 2.2.2		3		
• 2.2.3	2	1		
• 2.3.1	1	2		
• 2.3.2	1	2		
• 2.3.3	NA			
• 2.4.1	3			
• 2.4.2		3		
• 2.4.3	1	2		
• 2.5.1	NA			
• 2.5.2	NA			
• 2.5.3		3		
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 2.1.1	(3)	(2)	(4)	
• 2.1.2		(5)	(4)	
• 2.1.3	(2)	(3)	(4)	
• 2.2.1		(5)	(4)	
• 2.2.2	(3)	(2)	(4)	
• 2.2.3	(3)	(4)	(2)	
• 2.3.1	(4)	(3)	(2)	
• 2.3.2	(4)	(5)		
• 2.3.3	NA			
• 2.4.1	(4)	(6)		
• 2.4.2	(4)	(6)		
• 2.4.3	(4)	(4)	(1)	
• 2.5.1	NA			
• 2.5.2	NA			
• 2.5.3	(3)	(2)	(4)	

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 2.1.1	1	5(5)	2(1)	
• 2.1.2		5(4)	3(2)	
• 2.1.3	3	2(4)	3(2)	
• 2.2.1		6(3)	2(3)	
• 2.2.2	1	6(3)	1(3)	
• 2.2.3	2	5(4)	(3)	
• 2.3.1	2	6(2)	(4)	
• 2.3.2	4	4(4)	(2)	
• 2.3.3	NA			
• 2.4.1	1(1)	7(5)		
• 2.4.2	2(1)	6(5)		
• 2.4.3	6(2)	2(3)	(1)	
• 2.5.1	NA			
• 2.5.2	NA			
• 2.5.3	2(1)	6(4)	(1)	

Measurement Tool: Critical Thinking College Rubric
FAS 112

General Education Objective(s): 6

Goal Results: 90% “Excellent(4)”/”Proficient(3)”/
”Adequate(2)”

Legend: Laboratory Science(No Lab Sci)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 6.1.1	1	2		
• 6.1.2	3			
• 6.1.3	1	2		
• 6.2.1	1	2		
• 6.2.2	2	1		
• 6.2.3	3			
• 6.3.1	1	2		
• 6.3.2	2	1		
• 6.3.3		3		
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 6.1.1	1(2)	(2)	(4)	
• 6.1.2	1(2)	(2)	(4)	
• 6.1.3	1(2)	(2)	(4)	

• 6.2.1	1	(4)	(4)	
• 6.2.2	1(3)	(5)		
• 6.2.3	1(3)	(5)	1	
• 6.3.1		1(4)	(4)	
• 6.3.2	1	(6)	(2)	
• 6.3.3	1(2)	(3)	(3)	

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 6.1.1	1	4(4)	1(4)	
• 6.1.2	1	4(6)	1(2)	
• 6.1.3	1	4(6)	1(2)	
• 6.2.1	2	2(7)	2(1)	
• 6.2.2	2(3)	2(5)	2	
• 6.2.3	2(1)	3(7)	1	
• 6.3.1		4(4)	2(4)	
• 6.3.2	1	5(4)	1(4)	
• 6.3.3	1(2)	4(5)	1(1)	

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objective(s): 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-2014	2(36%)	2(39%)	2(50%)	2(42%)	2(57%)
2012-2013	1(61%)	1(56%)	1(66%)	1(64%)	1(63%)
2011-2012	2(4.5%)	2(35%)	2(27%)	2(11%)	2(7.5%)
2010-2011	1(48%)	N/A	1(33%)	1(56%)	1(13%)
2009-2010	1(39%)	N/A	2(33%)	1(25%)	1(21%)

PDSA CYCLE 2012-2013
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Problem Area

For the last two years I have been focusing on program strengths and weaknesses in regard to students' acquiring the necessary skills to be successful as farriers. The form of assessment was to be an outside industry based skill test. The Professional Farriers of America never adopted a testing format so I will move to the Texas Professional Farriers who have recently adopted a standardized test and use that test next year. For this year I only had one student graduate and he will be back next fall so I will test him with the others. The overriding area of concern in the farrier program is students not fulfilling their general education requirements. The one student graduating has an impressive skill set as do most of his classmates as far as shoeing is concerned but the six other students in his class are a semester to two semesters behind in their general education requirements. As I began to research and look into why students were falling behind in this area I discovered close to 80% are testing into up to as many as four remedial core classes before they even begin taking core classes. Some 50% of them are not passing the remedial classes nor are they taking any summer classes so they are a year behind in graduating. Over the majority are opting out of the Associates degree for the certificate option. They are satisfied with the skills they have acquired as farriers and feel qualified to begin their careers so are not actually graduating from the program. Either they do not see the importance of finishing their degrees or are discouraged in being able to pass the core classes or some are just not prepared to spend three years here. Having graduating students take an industry based test will be fairly simple to adopt as they can do that now over the internet in 2014. My major area of concern for next year's incoming freshman will be to place my focus on facilitating strategies that will enable students to be successful in core classes.

Goal

My goal for 2013-14 will be twofold. The first goal is to have 3rd semester students take the Texas Farrier on-line test and address any shortcomings they might have. I will use that as a pretest and post-test. The pre-test will serve as a guide as to what I need to focus on with students for their 3rd and 4th semesters. The post-test will be given upon completion of the fourth semester for program evaluation. My primary focus will be in making program changes to address student needs in the area of core education classes.

Action

Results from the Texas on-line test will guide me into what actions I need to take in regard to farrier skills. As for addressing student failure in passing core education classes I plan on focusing more on utilizing the I-Best program with Joyce Garrett in FAS 111 and FAS 112. I will modify my syllabi to include focusing on giving students more remedial help in attaining success in core requirements. I will then modify my FAS 233 syllabi to pick up the areas I will exclude from FAS 111 and 112. I will drop completely from the program some of the blacksmithing skills required in FAS 233 because they are no longer relevant. The reason some of the blacksmithing skills are no longer relevant is that shoe manufactures are now manufacturing shoes such as the heart bar and modern day farriers are no longer hand making these shoes. Current veterinary practices have also for the most part discontinued using this shoe as a therapeutic measure for laminitis and have moved to Equine digital support shoe. By making these changes I hope to address the problem with students fulfilling core requirements and also modernize my syllabi to be more concurrent with industry changes.

Results

I only had one student who completed the two year program. The other students who originally opted for the two year program chose the certificate program and opted to take other certificate programs such as Equine Gnathology. The student who remained in the program took one semester and just focused on his core classes so it took him five semesters to complete course requirements rather than four. I administered a pretest to determine what weaknesses he might have in the area of farrier science and addressed those during the year. Since I only had the one student it was simple enough to guide him in the skills he required or areas of weakness that were revealed on the pretest. For the three incoming freshman we tested them in reading comprehension, writing, and math. We then used FAS 111 & 112 as I-Best classes to strengthen areas of weakness. Results are listed below with a 12.9 the highest score a student can score on the TABE.

Student	**Reading Pretest-Post**	**Math Pretest-Post**	**Spelling Pretest-Post**	
2013-2014				
• 1	12.9/12.9	12.9/12.9	9.5/12.9	
• 2	6.8/	6.3	8.9	
• 3	8.6/12.9	12.9/12.9	9.5/12.9	

Hopefully utilizing I-Best will improve graduation rates. I will continue on this track and follow up on number of graduates next spring.

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Problem Area

The problem area I have been focusing on is encouraging students to complete their general education requirements. What most students in my program are doing is rather than complete their two year degree is graduate with three certificate programs. Usually farrier science, artistic silversmithing, and equine gnathology are their choices. It is possible that in the world we are now living in having multiple trades would be an advantage over an Associate's degree. My concern is that some students might be opting for this route for the wrong reasons. Their choice is based upon avoiding the associate's degree because they lack the necessary skills for core classes. My focus will be to continue to devise and incorporate strategies that will facilitate students taking or not taking core classes for the right reasons. Students coming into college and having an area of weakness in math or English is outside my circle of control. I can only adopt strategies that will equip students to pass core classes in college.

Goal

My goal for 2014-15 will be to insure that incoming students make career choices based upon what they really feel would be most conducive to leading a successful life and not necessarily upon the route of least resistance. To fulfill this goal I will need to meet individually with incoming freshman and ascertain what their heartfelt desires really are and hopefully through wise counsel enable them to make wise career choices and develop an action plan to insure they are equipped to reach their individual goals.

Action

After talking to individual students to determine what their goals are look at their individual COMPASS test scores and from that design an individual plan for each student. This plan would require steps that the student would need to take to shore up in their areas of weakness. The plan would need to have measurable goals and strategies that could be implemented by the student with my aid. All incoming freshman are required to take FAS 111. FAS 111 is also an I-best class so a major focus of the class would be to help students in their areas of weakness. For example if they needed help in math and are taking remedial math the I-best instructor and I would insure that they receive whatever help they would require during that class period and allot classroom time for them to work on it.

Results

To be presented and analyzed in 2014-15 report.

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
FINE ARTS
2013-2014

Contemporary artists need strong practical technical proficiency so they can convey conceptual ideas through visual material reality. The Fine Arts program emphasizes the important aesthetic correlation of appropriate media manipulation with manifestation of a desired affective outcome. The program offers hands-on creative experience with a variety of media applications to visual problem solving including: bronze casting, fabrication with a variety of materials, carving, drawing and painting. There is an equal emphasis upon student development of appropriate technical manipulation, individual creative initiative and conceptual awareness and intent.

Bronze sculpture has a strong tradition in Mesalands' foundry; however, other media options are strongly pursued. Exploration in combining several media is encouraged.

Program Objectives

Upon successful completion of the Fine Arts Degree Program:

1. The student will demonstrate the ability to produce fine art by demonstration of technical skills in 2D and/or 3D medium.
2. The student will demonstrate the ability to defend projects using fine art criteria.
3. The student will demonstrate the ability to produce an idiosyncratic body of work for self promotion.

General Education Competencies

Upon completion of the Fine Arts Degree Program and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Fine Arts assessment plan is in its fifth year and is addressed via the plan→do→study→adjust cycle that begins every other fall term and follows one Fine Arts cohort from first term through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. The student will demonstrate the ability to produce fine art by demonstration of technical skills in 2D and/or 3D medium.	• Capstone Projects • Capstone Art Show • Contracts	• ART 105 • ART 112 • ART 113 • ART 114 • ART 160 • ART 203 • ART 204 • ART 205 • ART 215 • ART 222 • ART 225 • ART 230 • ART 293
2. The student will demonstrate the ability to defend projects using fine art criteria.	• Capstone Projects • Pre/Post-Test • Critiques	• ART 101 • ART 103 • ART 104 • ART 105 • ART 112 • ART 113 • ART 114 • ART 160 • ART 203 • ART 204 • ART 205 • ART 215

		• ART 222 • ART 225 • ART 230 • ART 293
3. The student will demonstrate the ability to produce an idiosyncratic body of work for self-promotion.	• Capstone Projects • Capstone Art Show • Contracts	• ART 103 • ART 104 • ART 105 • ART 112 • ART 113 • ART 114 • ART 160 • ART 203 • ART 204 • ART 205 • ART 215 • ART 222 • ART 225 • ART 230 • ART 293

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Academic Cycle: 2013-14
Measurement Tool: Capstone Project for listed courses
Program Objective(s): 1, 2, 3
Goal Results: 60% or higher Faculty evaluated critique; 100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 101	5	4
ART 103	1	1
ART 104	1	1
ART 112	23	18
ART 113	2	2
ART 205	2	1
ART 215	4	4
ART 222	5	5
ART 225	4	4

Academic cycle: 2013-14
Measurement Tool: Capstone Art Show for listed courses
Program Objective(s): 1, 3
Goal Results: 60% or higher Faculty evaluated critique;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 101	5	4
ART 103	1	1
ART 104	1	1
ART 112	23	18
ART 205	2	1
ART 215	4	4
ART 222	5	5
ART 225	4	4
ART 230	4	4
ART 293	0	0

Academic cycle: 2013-14
Measurement Tool: Critiques for listed courses
Program Objective(s): 2
Goal Results: 60% or higher Faculty/student evaluated critique*;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 103	1	1
ART 104	1	1
ART 112	23	18
ART 113	2	2
ART 114	12	12
ART 205	2	1
ART 215	4	4
ART 222	5	5
ART 225	4	4
ART 230	4	4

*A home grown critique rubric is used for the evaluation

Academic cycle: 2013-14
Measurement Tool: Pre-Test/Post Test Results for listed courses
Program Objective(s): 2
Goal Results: 60% or higher as passing score;
100% of students to reach benchmark

Course	# of Students	Pre-test Average	Post-test Average	# Succeeding
ART 101	8	65%	88%	6
ART 103				

Academic cycle: 2013-14
Measurement Tool: Contracts for listed courses
Program Objective(s): 1, 3
Goal Results: 60% or higher per student completion rate;
100% of students to reach benchmark

Course	# of Students Attempting	# Fulfilling Contracts
ART 112	23	18
ART 113	2	2
ART 114	12	12
ART 205	2	1
ART 215	4	4
ART 222	5	5
ART 225	4	4
ART 230	4	4

Academic Cycle: 2012-13
Measurement Tool: Capstone Project for listed courses
Program Objective(s): 1, 2, 3
Goal Results: 60% or higher Faculty evaluated critique*;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 101	10	8
ART 103	1	1
ART 104	3	3
ART 112	7	7
ART 113		
ART 205	3	3
ART 215	6	6
ART 222	1	1
ART 225	4	4

*A home grown critique rubric is used for the evaluation

Academic cycle: 2012-13
Measurement Tool: Capstone Art Show for listed courses
Program Objective(s): 1, 3
Goal Results: 60% or higher Faculty evaluated critique*;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 101	10	8
ART 103	1	1
ART 104	3	3
ART 112	7	7
ART 205	3	3
ART 215	6	6
ART 222	1	1
ART 225	4	4
ART 230	2	2
ART 293	4	3

*A home grown critique rubric is used for the evaluation

Academic cycle: 2012-13
Measurement Tool: Critiques for listed courses
Program Objective(s): 2
Goal Results: 60% or higher Faculty/student evaluated critique*;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 103	1	1
ART 104	3	3
ART 112	7	7
ART 113	3	2
ART 114	8	8
ART 205	3	3
ART 215	6	6
ART 222	1	1
ART 225	13	13
ART 230	4	4

*A home grown critique rubric is used for the evaluation

Academic cycle: 2012-13
Measurement Tool: Pre-Test/Post Test Results for listed courses
Program Objective(s): 2
Goal Results: 50% or higher passing score [prison course results]

Course	# of Students	Pre-test Average	Post-test Average	# Succeeding
ART 101	24[10]	36 %[20%]	81%[68%]	14[10]
ART 103	1	43%	72%	1

Academic cycle: 2012-13
Measurement Tool: Contracts for listed courses
Program Objective(s): 1, 3
Goal Results: 60% or higher per student completion rate; 100% of students to reach benchmark

Course	# of Students Attempting	# Fulfilling Contracts
ART 112	7	7
ART 113	3	2
ART 114	5	5
ART 205	3	1
ART 215	6	5
ART 222	1	1
ART 225	13	12
ART 230	4	4

Academic cycle: 2011-12
Measurement Tool: Capstone Project for listed courses
Program Objective(s): 1, 2, 3
Goal Results: 60% or higher Faculty evaluated critique*; 100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 101	20	14
ART 103	1	1
ART 104	4	3
ART 112	4	4
ART 113	3	2
ART 205	5	4
ART 215	7	7
ART 222	3	3
ART 225	9	8

*A home grown critique rubric is used for the evaluation

Academic cycle: 2011-12
Measurement Tool: Capstone Art Show for listed courses
Program Objective(s): 1, 3
Goal Results: 60% or higher Faculty evaluated critique*;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 101	22	20
ART 103	1	1
ART 104	4	3
ART 112	4	4
ART 205	5	4
ART 215	7	7
ART 222	3	3
ART 225	9	7
ART 230	2	2
ART 293	1	1

*A home grown critique rubric is used for the evaluation

Academic cycle: 2011-12
Measurement Tool: Critiques for listed courses
Program Objective(s): 2
Goal Results: 60% or higher Faculty/student evaluated critique*;
100% of students to reach benchmark

Course	# of Students Attempting	# Succeeding
ART 103	1	1
ART 104	4	3
ART 112	4	4
ART 113	3	2
ART 114	5	5
ART 205	5	4
ART 215	7	7
ART 222	3	3
ART 225	9	9
ART 230	2	2

*A home grown critique rubric is used for the evaluation

Academic cycle: 2011-12
Measurement Tool: Pre-Test/Post Test Results for listed courses
Program Objective(s): 2
Goal Results: 50% or higher passing score;
100% of students to reach benchmark

Course	# of Students	Pre-test Average	Post-test Average	# Succeeding
ART 101	14	36	81	14
ART 103	1	0	10	1

Academic cycle: 2011-12
Measurement Tool: Contracts for listed courses
Program Objective(s): 1, 3
Goal Results: 60% or higher per student completion rate;
100% of students to reach benchmark

Course	# of Students Attempting	# Fulfilling Contracts
ART 112	4	3
ART 113	3	2
ART 114	5	5
ART 205	5	4
ART 215	6	6
ART 222	3	3
ART 225	9	8
ART 230	4	4

Evaluation for Senior Capstone Show

Each graduate must execute senior capstone show before graduation. The show will include past capstone projects for previous classes as well as work completed in last semester. Student will present defense of the work. Grade is determined by rubric of 5-1 with 5 being excellent and 1 being unacceptable

Academic Year	# of students	Media Used	Defense	Creativity	Craftsmanship	Deadlines
2010-2011	1	2D and 3D	4	4.5	4.5	4
2011-2012	1	2D and 3D	4	5	3.5	3

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
Communication 1. Writing. 2. Oral Presentation. 3. Information technology.	• ENG 299 • CAAP • Writing Across the Curriculum	• ACS 100 • CIS 101 • COM 102 • ENG 102 • Lab Science Elective • Social/Behavioral Science • Humanities/Fines Arts Elective • ART 101
Mathematical and Scientific Reasoning 4. Mathematical Reasoning. 5. Scientific Methodology	• ENG 299 • CAAP	• Lab Science Elective
Critical Thinking 6. Critical Thinking	• ENG 299 • CAAP • Capstone Project	• ACS 100 • Lab Science Elective • Social Sciences/Humanities Elective • ART 101 • ART 103 • ART 104

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the academic course of study.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objective(s): 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2012-2013	2(62.5%)	2(53%)	2(62.5%)	2(60.5%)	2(55.5%)

Measurement Tool: Writing Across the Curriculum College Rubric
General Education Objective(s): 1
Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”
Legend: ENG 102(No ENG 102)

Year 2013-2014	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
• 1.1.1 • 1.1.2 • 1.1.3	4(21) 2(21) 4(9)	6(14) 6(14) 4(26)	0(1) 2(1) 2(1)	0(0) 0(0) 0(0)
• 1.2.1 • 1.2.2 • 1.2.3	2(8) 4(20) 2(8)	6(27) 5(15) 6(27)	0(0) 1(0) 0(0)	2(1) 0(1) 2(1)
• 1.3.1 • 1.3.2	2(12) 4(12)	6(2) 4(2)	2(1) 0(1)	0(0) 2(0)
• 1.4.1 • 1.4.2	0(3) 0(3)	7(30) 7(30)	3(3) 3(3)	0(0) 0(0)
Year 2013-2014	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
• 1.1.1 • 1.1.2 • 1.1.3	4(2) 4(2) 4(2)	1(1) 1(1) 1(1)	0(0) 0(0) 0(0)	2(0) 2(0) 2(0)
• 1.2.1 • 1.2.2 • 1.2.3	4[2] 4(2) 4(2)	1(1) 1(1) 1(1)	0(0) 0(0) 0(0)	2(0) 2(0) 2[0)
• 1.3.1 • 1.3.2	1[1) 2(2)	4(1) 3(1)	0(1) 0(0)	2(0) 2(0)
• 1.4.1 • 1.4.2	3(1) 4(1]	2(1) 1(1)	0(1) 0(1)	2[0) 2(0]

Year Spring 2013	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
• 1.1.1 • 1.1.2 • 1.1.3	4(2) 4(2) 4(2)	1(1) 1(1) 1(1)	0(0) 0(0) 0(0)	2(0) 2(0) 2(0)
• 1.2.1 • 1.2.2 • 1.2.3	4(2] 4(2) 4(2)	1(1) 1(1) 1(1)	0(0) 0(0) 0(0)	2(0) 2(0) 2[0)
• 1.3.1 • 1.3.2	1[1) 2(2)	4(1) 3(1)	0(1) 0(0)	2(0) 2(0)
• 1.4.1 • 1.4.2	3(1) 4(1]	2(1) 1(1)	0(1) 0(1)	2[0) 2(0]
Year Fall 2012	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
• 1.1.1 • 1.1.2 • 1.1.3	1(0) 1(0) 1(0)	7(0) 7(0) 7(0)	7(6) 7(6) 6(5)	6(1) 6(1) 6(1)
• 1.2.1 • 1.2.2 • 1.2.3	1(0) 1(0) 1(0)	7(0) 7(0) 7(0)	7(6) 7(6) 7(6)	6(1) 6(1) 6(1)
• 1.3.1 • 1.3.2	1(0) 1(0)	7(0) 7(0)	7(6) 7(6)	6(1) 6(1)
• 1.4.1 • 1.4.2	1 1	4(0) 7(2)	6(4) 6(5)	10(5) 7(2)
Year **2011-2012**	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
• 1.1.1 • 1.1.2 • 1.1.3	7(3) 7(2) 7(2)	10(5) 8(5) 9(4)	6(1) 8(1) 8(2)	2(0) 2(0) 1(0)
• 1.2.1 • 1.2.2 • 1.2.3	7(4) 7(4) 8(4)	9(3) 11(3) 4(2)	8(1) 5(1) 7(20	1 2 1
• 1.3.1 • 1.3.2	0() 6(6)	(2) 5()	11(2) 1()	2(2) 1()
• 1.4.1 • 1.4.2	6(2) 5(3)	10(4) 9(3)	8(2) 9(1)	2() 1(1)

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Problem Area

Attendance was somewhat of a problem with the Art Appreciation class with overall attendance at 84%. Once I reminded students of the penalties set forth in the syllabus, they seemed to do better. I think more frequent testing might also help. I gave quizzes and they seemed to help somewhat. Perhaps an ongoing project that will require regular attendance might be helpful.

Goal

My goal is to increase the success of each individual student in the class by improving the overall attendance of the class as a whole.

Action Plan

I feel that increasing regular attendance can be accomplished by keeping students engaged and wanting to come to class. This might be done by having students deliver a lecture or lectures as part of their grade as well as having each student create an art work that is then critiqued by the class.

Results

To be presented and analyzed in 2014-2015 report.

PDSA CYCLE 2012-2013
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Problem Area

In the 3 dimensional courses, 10 % of students did well until they begin to miss classes. Once they started missing (missing 70 % of classes), they did not come back even with referrals.

In Art Appreciation 101, 33% of students had a greater problem with consistent attendance by missing 60 % or fewer classes. Referrals did not seem to help either group.

Goal

Keep students engaged and wanting to come to class.

Action Plan

Give students greater choice in what assignments they chose to encourage more personal investment.

Results

Three dimensional Courses did better in attendance in 2013-2014. Students signed in for each class so they realized attendance mattered
In Art Appreciation 101, class was much smaller with more group participation which seemed to help.

Student Learning Assessment Program Report
NATURAL SCIENCES
2013-2014

The Natural Science program at Mesalands Community College provides educational options in either paleontology or geology.

The option in paleontology provides a primary education in the earth and biological sciences with an emphasis on paleontology. Students will be exposed to the fundamentals of geology, biology, and paleontology. The paleontology option emphasizes practical knowledge of fossils through field trips and laboratory work. Courses take advantage of the rich natural resources of the mesalands country of eastern New Mexico, a high technology science laboratory, and the College's paleontology museum, the Mesalands Dinosaur Museum. The Paleontology option emphasizes fossils, particularly their collection and study.

The option in geology provides a primary education in the natural sciences. Students will be exposed to the fundamentals of geology, biology, and computer science. The geology program emphasizes practical knowledge through field trips and laboratory work. Courses take advantage of the rich natural resources of the mesa country of eastern New Mexico, a state-of-the-art, computer-interactive science laboratory, and the College's natural history museum, the Mesalands Dinosaur Museum.

Program Objectives

Upon completion of the Natural Sciences Associate Degree Program:

1) The student will demonstrate an in-depth understanding of the concepts and associated geological processes of the Theory of Plate Tectonics, by scoring 80% or higher on 3 examinations

2) The student will identify common minerals and rocks, and explain their genesis and the environments in which they form, as demonstrated by passing 3 laboratory exercises

3) The student will demonstrate an understanding of geological time and the principles of stratigraphy, by scoring 80% or higher on 2 examinations and 1 laboratory exercise.

4) The student will correctly apply appropriate field and laboratory techniques, as demonstrated by successfully completing 3 field and laboratory assignments.

5) The student will demonstrate the skills to conduct and present a scientific research project under guidance of the instructor, by passing a research class with the grade B or higher

In addition, upon completion of the Natural Sciences Associate Degree Program with option Paleontology

6) The student will demonstrate an understanding of anatomical structures and their function in the principal groups of invertebrates and vertebrates, by scoring 80% or higher on 1 examination and passing 2 laboratory exercises.

7) The student will demonstrate a broad-based understanding of the components of the Theory of Evolution, by scoring 80% or higher on 1 examination and passing 2 laboratory exercises.

8) The student will demonstrate an understanding of the principles of museum displays and collections, and of conservation and curation of natural history specimens, by successfully completing 3 practical assignments.

In addition, upon completion of the Natural Sciences Associate Degree Program with option Geology

9) The student will demonstrate an understanding of the genesis, occurrence, and exploitation of geological resources (mineral, energy, water), by scoring 80% or higher on 1 examination and passing 2 laboratory exercises

10) The student will demonstrate an understanding of the nature of geological hazards, and demonstrate the ability to evaluate such hazards, by scoring 80% or higher on 1 examination and passing 2 laboratory exercises.

General Education Competencies:

Upon completion of the Natural Sciences Associate Degree Program and in addition to the above mentioned program objectives:

1) Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).

2) Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

3) Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Natural Sciences assessment plan is in its fifth year and is addressed via the plan→do→study→adjust cycle that begins every fall term and follows one Natural Sciences cohort from first term through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

PROGRAM OBJECTIVE	MEASUREMENT TOOLS	COURSES IN WHICH PROGRAM OBJECTIVES ARE PRESENTED AND/OR MEASURED
1) The student will demonstrate an in-depth understanding of the concepts and associated geological processes of the Theory of Plate Tectonics.	• Laboratory Exercises • Faculty-prepared Examination	• GEOL 151 • GEOL 152
2) The student will identify common minerals and rocks, and explain their genesis and the environments in which they form.	• Laboratory Exercises • Faculty-prepared Examination	• GEOL 151 • GEOL 152 • GEOL 190 • GEOL 290 • GEOL 293
3) The student will demonstrate an understanding of geological time and the principles of stratigraphy	• Laboratory Exercise • Faculty-prepared Examinations	• GEOL 151 • GEOL 152 • GEOL 210
4) The student will correctly apply appropriate field and laboratory techniques to successfully complete assigned projects.	• Laboratory Exercise • Field Exercise • Program-specific Rubrics • Capstone Project • Museum and Laboratory Projects	• GEOL 118 • GEOL 120 • GEOL 122 • GEOL 190 • GEOL 290 • GEOL 293 • Museum volunteer activities
5) The student will demonstrate the skills to conduct and present a	• Research Project • Scientific Report	• GEOL 190 • GEOL 290 • GEOL 289

scientific research project under guidance of the instructor.	• Oral and Poster Presentations	
6) The paleontology student will demonstrate an understanding of anatomical structures and their function in the principal groups of invertebrates and vertebrates.	• Laboratory Exercise • Faculty-prepared Examination • Class Presentations • Museum and Laboratory Projects	• GEOL 152 • GEOL 120 • GEOL 190 • GEOL 210 • GEOL 289 • GEOL 293 • GEOL 293K • BIOL 113 • BIOL 250 • Museum volunteer activities
7) The paleontology student will demonstrate a broad-based understanding of the components of the Theory of Evolution.	• Class Presentations • Laboratory Exercise • Faculty-prepared Examination	• BIOL 113 • GEOL 141 • GEOL 152 • GEOL 210
8) The paleontology student will demonstrate knowledge of the principles of museum displays and collections, and of conservation and curation of natural history specimens.	• Faculty-prepared Examination • Class Assignment • Museum and Laboratory Projects	• GEOL 105 • GEOL 120 • GEOL 190 • GEOL 290 • GEOL 289 • Museum volunteer activities
9) The geology student will demonstrate an understanding of the genesis, occurrence, and exploitation of geological resources (mineral, energy, water).	• Faculty-prepared Examination • Laboratory Exercises	• GEOL 141 • GEOL 151 • GEOL 230
10) The geology student will demonstrate an understanding of the nature of geological hazards, and demonstrate the ability to evaluate such hazards.	• Faculty-prepared Examination • Laboratory Exercises • Case Study	• GEOL 141 • GEOL 151 • GEOL 230

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: Chapter Test “Plate Tectonics”, GEOL 151 Physical Geology
Program Objective(s): 1
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=87%)
2011-2012	2	2	100% (mean=83%)
2012-2013	test not administered	n/a	n/a
2013-2014	1	1	100% (mean=85%)

Measurement Tool: Laboratory Exercise “Plate Boundaries of an Unknown Ocean and Continent”, GEOL 151 Physical Geology
Program Objective(s): 1
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=97%)
2011-2012	exercise not conducted	n/a	n/a
2012-2013	1	0	0% (mean=64%)
2013-2014	1	1	100% (mean=91%)

Measurement Tool: Laboratory Exercise “Plate Tectonics and the Origin of Magma”, GEOL 151 Physical Geology
Program Objective(s): 1
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	0	0% (mean=59%)
Remark: The overall failure of the student is due to the last-minute-submission of an incomplete exercise. The completed parts of the exercise scored 77%.			
2011-2012	1	1	100% (mean=33%)
2012-2013	1	1	100% (mean=74%)
2013-2014	1	1	100% (mean=83%)

Measurement Tool: Laboratory Exercise “Seafloor Spreading”, GEOL 152 Historical Geology
Program Objective(s): 1
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2009-2010	4	3	75% (mean=83%)
2010-2011	1	1	100% (85%)
2011-2012	3	2	66.6% (66.6%)
2012-2013	1	1	100% (85%)
2013-2014	1	1	100% (mean n/a)

Measurement Tool: 4 Laboratory Exercises (identification and genesis of minerals, igneous, sedimentary and metamorphic rocks)
GEOL 151 Physical Geology
Program Objective(s): 2
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=97%)
2011-2012	2	2	100% (mean=94%)
2012-2013	1	1	100% (mean=92%)
2013-2014	1	1	100% (mean=92%)

Measurement Tool: Final Exam Section (relative dating, unconformities)
GEOL 151 Physical Geology
Program Objective(s): 3
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=100%)
2011-2012	2	1	50% (mean=86%)
2011-2012	1	1	100% (mean=72%)
2013-2014	1	1	100% (mean=75%)

Measurement Tool: Laboratory Exercise “Geological Time”
GEOL 151 Physical Geology
Program Objective(s): 3
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=98%)
2011-2012	2	2	100% (mean=85%)
2013-2014	1	1	100% (mean=78%)

Measurement Tool: Laboratory Exercise “Relative Dating”, GEOL 152 Historical Geology
Program Objective(s): 3
Goal Results: 80% pass rate; cut score is 75%

Reporting Period	# of students attempting	# passing	% passing
2009-2010	4	4	100% (mean=83.5%)
2010-2011	1	1	100% (mean=95%)
2011-2012	2	2	100% (mean=100%)
2012-2013	1	1	100% (mean=87%)
2013-2014	1	1	100% (mean n/a)

Measurement Tool: Practical Assignment: Construction of a Storage Plaster Jacket
GEOL 105 Introduction to Museum Science
Program Objective(s): 4, 8
Goal Results: 100% pass rate; Pass/Fail

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100%
2012-2013	2	2	100%

Measurement Tool: Practical Assignment: Stabilization and Preparation of Eocene Fish Slab
GEOL 105 Introduction to Museum Science
Program Objective(s): 4, 8
Goal Results: 100% pass rate; Pass/Fail according to criteria defined in rubric

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	2	67%

Remarks: The failing student did not pass because he tried an inappropriate tool for this kind of preparation. Subsequently, he was given a second assignment which he passed.

Measurement Tool: Field exercise: Construction of a Field Plaster Jacket
GEOL 120 Paleontology Field Exploration
Program Objective(s): 4
Goal Results: 100% pass rate; Pass/Fail according to criteria defined in rubric

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	2	66%
2011-2012	0	0	N/A
2012-2013	2	2	100%
2013-2014	2	2	100%

Measurement Tool: Field Assignment: Retrieval of Fossil in Sandstone Using Mechanical Tools
GEOL 120 Paleontology Field Exploration (Summer 2010, 2011)
Museum Volunteer Activity (Fall 2011, Summer 2012)
Program Objective(s): 4
Goal Results: 100% pass rate; Pass/Fail according to criteria defined in rubric

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100%
2011-2012 (Summer)	1	1	100%
2011-2012 (Fall)	1	1	100%
2012-2013 (Summer)	1	0	0%
Remarks: The student took apart parts of the admittedly poorly preserved and very difficult to handle fossil, despite explicit instruction not to do so, and subsequently failed to reassemble these parts. Although the preparation was overall successful, the loss of information due to inappropriate handling is the reason for failing.			
2013-2014	2	2	100%

Measurement Tool: Lab Exercise: Preparation of Fossil with Airtool
GEOL 120 Paleontology Field Exploration
Museum Volunteer Activity (Fall 2012)
Program Objective(s): 4
Goal Results: 100% pass rate; Pass/Fail according to criteria defined in rubric

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100%
2011-2012	1	1	100%
2012-2013 (volunteer)	1	1	100%
2012-2013	1	1	100%
2013-2014	2	2	100%

Measurement Tool: Lab Exercise: Reassembling of Fragmentary Recovered Fossil
GEOL 120 Paleontology Field Exploration
Museum Workstudy Activity (Fall 2012)
Program Objective(s): 4
Goal Results: 100% pass rate; Pass/Fail according to criteria defined in rubric

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100%
2011-2012	1	1	100%
2012-2013	1	0	0%
2012-2013	1	1	100%
2013-2014	2	2	100%

Measurement Tool: Field/Lab Assignment: Data Recording and Storage during Fossil Recovery
GEOL 120 Paleontology Field Exploration
Program Objective(s): 4
Goal Results: 100% pass rate; cut rate is 90% according to criteria defined in rubric

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100% (mean=97%)
2011-2012	1	1	100%
2012-2013	1	1	100%
2013-2014	2	1	50%

Measurement Tool: Scientific Report/Practical Application: "Construction of Identification Key for Pennsylvanian Fern Leaves"
GEOL 189 Independent Study in Geoscience
Program Objective(s): 5
Goal Results: 100% pass rate; cut score is 80% as defined by project-specific criteria

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=100%)

Measurement Tool: Scientific Report: "Morphological Description of Phytosaur Osteoderms"
GEOL 189 Independent Study in Geoscience
Program Objective(s): 5
Goal Results: 100% pass rate; cut score is 80% measured by criteria deemed acceptable in published descriptions

Reporting Period	# of students attempting	# passing	% passing
2010-2011	1	1	100% (mean=90%)

Measurement Tool: Written Report "Scientific article summary"
GEOL 289 Independent Study in Geosciences
Program Objective(s): 5
Goal Results: 100% pass rate; pass/fail score according to rubric score

Reporting Period	# of students attempting	# passing	% passing
2011-2012 (Fall)	3	3	100% (mean=100%)
2012-2013 (Fall)	2	2	100%
2012-2013 (Spring)	assignment not given	n/a	n/a
2013-2014 (Spring)	2	2	100%
2013-2014 (Fall)	1	1	100%

Measurement Tool: Exercise “Scientific illustration”
GEOL 289 Independent Study in Geosciences
Program Objective(s): 5
Goal Results: 100% pass rate; pass/fail score measured by criteria deemed acceptable in published illustrations

Reporting Period	# of students attempting	# passing	% passing
2011-2012 (Spring)	3	2	66% (mean=66%)
2012-2013 (Fall)	2	2	100%
2012-2013 (Spring)	2	1	50%
Remarks: Failing student did not finish assignment.			
2013-2014 (Spring)	2	2	100%
2013-2014 (Fall)	1	0	0%
Remarks: Student did not finish assignment.			

Measurement Tool: Lab Exercise: Anatomy of Corals
GEOL 210 History of Life
Program Objective(s): 6
Goal Results: 80% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	2	66% (mean=76%)
2012-2013	2	2	100% (mean n/a)
2013-2014	1	1	100% (mean n/a)

Measurement Tool: Oral Recapitulation (Evolutionary History and Functional Interpretation of Anatomical Characters in Archosaurs [phytosaurs, aetosaurs, basal dinosaurs])
GEOL 120 Paleontology Field Exploration
Program Objective(s): 6
Goal Results: 100% pass rate; Pass/Fail

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100%
2011-2012	1	1	100%

Measurement Tool: Lab Exercise “Homology of Vertebrate Forelimb”
BIOL 113 Introduction to Biology
Program Objective(s): 6
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2011-2012	1	1	100% (mean=75%)

Measurement Tool: 2 chapter tests “Evolution of Populations; Evolution of Diversity”
BIOL 113 Introduction to Biology
Program Objective(s): 7
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2011-2012	1	1	100% (mean=80%)

Measurement Tool: Final Exam Section (Principles of Evolution)
GEOL 210 History of Life
Program Objective(s): 7
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100% (mean=88%)
2013-2014	1	1	100% (mean n/a)

Measurement Tool: Oral Final Exam Section (Explaining of Principles of Evolution using an Example)
GEOL 210 History of Life
Program Objective(s): 7
Goal Results: 100% pass rate; pass/fail score

Reporting Period	# of students attempting	# passing	% passing
2012-2013	2	2	100%
2013-2014	1	1	100%

Measurement Tool: Practical/Written Assignment: Condition Report "Identification of Eocene fossil material for display"
GEOL 105 Introduction to Museum Science
Program Objective(s): 8
Goal Results: 100% pass rate; Pass/Fail

Reporting Period	# of students attempting	# passing	% passing
2010-2011	3	3	100%

Measurement Tool: Practical/Written Assignment: Curation of natural history specimens (process of inventorizing)
GEOL 105 Introduction to Museum Science (Fall 2010, 2012)
GEOL 270 Invertebrate Paleontology (Spring 2011)
Program Objective(s): 8
Goal Results: 100% pass rate; Pass/Fail

Reporting Period	# of students attempting	# passing	% passing
2010-2011 (Fall)	3	3	100%
2010-2011 (Spring)	1	1	100%
2012-2013 (Fall)	2	2	100%

Measurement Tool: Laboratory Exercise "Coal Property Evaluation"
GEOL 230 Environmental Geology
Program Objective(s): 9
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2011-2012	1	1	100% (score 98%)
2013-2014	1	1	100%

Measurement Tool: Laboratory Exercise "Volcanic Hazard Assessment"
GEOL 151 Physical Geology
Program Objective(s): 10
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2011-2012	2	1	50% (mean=85%)
Remarks: The failing student scored 0% because of failure to submit exercise.			
2012-2013	1	1	100% (mean=82%)
2013-2014	1	1	100% (mean=85%)

Measurement Tool: 3 Laboratory Exercises "Hazard Evaluation (earthquakes, volcano, hurricane/tsunami)"
GEOL 230 Environmental Geology
Program Objective(s): 10
Goal Results: 100% pass rate; cut score is 80%

Reporting Period	# of students attempting	# passing	% passing
2011-2012	1	1	100% (cumulative score 94%)
2013-2014	1	1	100% (mean n/a)

General Education Competencies Assessment Plan:

General education competencies are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

GENERAL EDUCATION COMPETENCIES	MEASUREMENT TOOLS	COURSES IN WHICH PROGRAM OBJECTIVES ARE PRESENTED &/OR MEASURED.
Communication: 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• CAAP • CAT • Class Presentation	• ACS 100 • GEOL 105 • GEOL 151 • GEOL 152 • GEOL 210 • GEOL 230 • GEOL 190 • GEOL 290 • GEOL 293 • COM 102 • CIS 101 • ENG 102 • ENG 104 • Lab Science Elective • Soc. Sci./Humanities Elective
Mathematical and Scientific Reasoning: 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• CAAP • Laboratory Exercise • Laboratory Report	• GEOL 151 • GEOL 152 • GEOL 190 • GEOL 210 • GEOL 230 • GEOL 289 • GEOL 290 • BIOL 113 • BIOL 250 • Lab Science Elective
Critical Thinking: 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned arguments.	• CAAP • Capstone Project • Laboratory Exercise	• ACS 100 • GEOL 151 • GEOL 152 • GEOL 190 • GEOL 210 • GEOL 230 • GEOL 289 • GEOL 290 • BIOL 113 • BIOL 250 • Lab Science Elective • Soc. Sci./Humanities Elective

General Education Competencies Results:

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: Oral Presentation College Rubric
General Education Objective(s): 2
Goal Results: 90% "Excellent(4)"/"Proficient(3)"/ "Adequate(2)"
Legend: COMM 102(No COMM 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 2.1.1		2 (1)		
• 2.1.2	2		(1)	
• 2.1.3	1	1 (1)		
• 2.2.1	2	(1)		
• 2.2.2		1 (1)	1	
• 2.2.3	1 (1)	1		
• 2.3.1		2 (1)		
• 2.3.2	1	(1)	1	
• 2.3.3	N/A	N/A	N/A	N/A
• 2.4.1	1 (1)		1	
• 2.4.2	1 (1)	1		
• 2.4.3	2 (1)			
• 2.5.1	N/A	N/A	N/A	N/A
• 2.5.2	2 (1)			
• 2.5.3	N/A	N/A	N/A	N/A

Measurement Tool: Oral Presentation College Rubric GEOL 289, Spring 2012, “Oral synopsis of a scientific article”

General Education Objective(s): 2

Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

Legend: COMM 102(No COMM 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011 • 2.1.1 • 2.1.2 • 2.1.3	 (2) n/a n/a	 (1) n/a n/a	 n/a n/a	 n/a n/a
• 2.2.1 • 2.2.2 • 2.2.3	n/a (1) (3)	n/a (2)	n/a	n/a
• 2.3.1 • 2.3.2 • 2.3.3	 n/a	 (2) n/a	(3) (1) n/a	 n/a
• 2.4.1 • 2.4.2 • 2.4.3	(2) (3) (3)	(1)		
• 2.5.1 • 2.5.2 • 2.5.3	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a	n/a n/a n/a

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)

General Education Objective(s): 1, 4-9

Goal Results: 50%

Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-14	2 (37)	2 (68.5)	2 (41)	2 (53.5)	2 (60)
2012-13	1(59)	1(59)	1(69)	1(62)	1(63)
2010-11	2(80%)	2(85%)	2(72%)	2(84.5%)	2(78%)
2009-10	1(80%)	1(30%)	1(94%)	1(83%)	1(79%)

PDSA CYCLE 2012-2013 ANALYSIS

Problem Area

Objective 1: Plate Tectonics (continued)

The goal set in the 2011-2012 PDSA cycle was not achieved.

Action Plan (Spring 2013)

The number of plate tectonic exercises in GEOL 151 Physical Geology will be increased to 7 shorter activities, each addressing a different aspect of the theory (plate boundaries, geographic features and geologic processes correlated with plate boundaries), plus a revised capstone exercise (plate tectonic processes and magmatic activity) will be introduced.

The familiarity of students of GEOL 151 Physical Geology with the metric system and conversions within the metric system will be evaluated by administrating a test in the first week of class. As it is mandatory for students of GEOL 141 Introduction to Environmental Science, students failing all or sections of the test will be required to attend and pass tutoring sessions at the Math-Science Learning Center.

Problem Areas

Objective 5: Research Methods (continued)
Scientific Writing (continued)

Action Plan (Fall 2012 to Spring 2013)

Over the academic year 2012-2013, two Natural Science Program students and one dual enrollment high school student who will enter the program in fall 2013 were enrolled in the research class GEOL 289, Independent Study in Geoscience. A research project was designed and conducted during fall 2012 into spring 2013, with the goal of the students compiling and presenting their research in form of a poster presentation at the end of the semester. In addition to research methods, the instructors also addressed in class theoretical aspects on how to construct a scientific presentation (selecting information and illustrative material to present, outline of a poster, ways of presentation). The students rehearsed their presentation as a centerpiece during a public evening event at the Dinosaur Museum. Finally, the students presented their poster and explained their research at the National Conference held by Community College Undergraduate Research Initiative (CCURI) at Bethesda, MD, March 21-24, 2013 to participating students and faculty.

Results (Spring 2013)

The execution of the action plan was an unprecedented success. Students experienced “deep learning” (in subjects like vertebrate anatomy or systematics which are not part of the undergraduate curriculum) by doing research and became highly motivated, in particular when they realized during their presentations that the audience was really interested and excited by what they were doing. However, the students needed more guidance than expected from their academic background and experience from previous research classes. There were still substantial deficiencies in the use of PowerPoint and Photoshop as tools for writing up and assembling the poster, which necessitated three hours of practical teaching the basics of PowerPoint (use of text boxes, figure preparation and scaling). Students seriously underestimated the time required to transfer research results into a presentable form. In particular, the scientific text had to be rewritten and intensely modified several times to be clear, precise, and presentable. Initial problems became evident with scientific citations (format) and when a reference is required.

PDSA CYCLE 2013-2014 ANALYSIS

Problem Area

Objective 1: Plate Tectonics (including metric system)

Result

Implementing the action plan presented in the previous PDSA cycle in fall 2013 was successful: All students of GEOL 151 Physical Geology scored above the cut score of 80% for the newly designed laboratory exercises in plate tectonics. In addition, three out of five students were required to receive tutoring in the metric system at the Math-Science Learning Center (MSLC) and passed the exit examination. As three out of the seven laboratory exercises in plate tectonics include conversions of metric data, the scores demonstrate the overall success of this measure.

Problem Area

Objective 5: Research Methods
Research modules in GEOL science requirement classes
taking into account the experiences and insights gained from previous PDSA cycles regarding the incorporation of research as a method of “deep learning” in science classes, the following action plan is proposed.

Goals

1. In fall semester 2015, a newly designed research class will be established as part of the Natural Sciences program curriculum.
2. In fall semester 2015, at least one Natural Science requirement class taught will include a research module.

Action Plan

1. Establish new research class for Paleontology/Geology Program students

Fall 2014
- create class syllabus
  - incorporate modules for teaching basics of Powerpoint and Photoshop
- modify Plan of Study of AA degree Natural Sciences
- modify Matrix to schedule research class
- develop and establish assessment tools for program objective 5 and general education competencies “communication” 2 (oral presentation) and 3 (application of information technology) in research class

Spring 2015
- acquire or set up materials/equipment to conduct research
  - literature (contact library for assistance of students; organize and expand handbook library; create library housing at Museum; organize and expand scientific articles pdf collection on student work stations)
  - create additional work stations for students
  - acquire and install software on student work stations
  - acquire photographic equipment

Fall 2015
- launch research class

2. Change curriculum of selected Natural Science requirement classes to incorporate research module

Fall 2014
- identify classes to incorporate research
- modify syllabus of identified classes:
  - include research component
  - modify class curriculum to allow contact time allocated to research

Spring 2015
- write research guide
- identify potential research areas
- design standardized research projects

Fall 2015
- launch requirement classes with research module

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
SOCIAL WORK
2013-2014

The Social Work Program provides the student with an introduction to the field of social work and the social welfare system, the human behavior content required of human services workers and social welfare policy analysis skills. The curriculum may serve as a preparatory foundation for those interested in continuing their study at the Bachelor of Social Work level.

Program Objectives/Competencies

Upon completion of the Social Work Associate Degree Program:

1. Students will summarize knowledge of the history of social welfare, past and present.

2. Students will recognize the National Association of Social Workers Code of Ethics and Preamble and discuss steps involved in becoming a member of the national organization.

3. Students will demonstrate written and oral communication skills necessary in the field for effective social work practice.

General Education Competencies

Upon completion of the Social Work Associate Degree Program and in addition to the above mentioned program objectives/competencies:

4. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).

5. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).

6. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Social Work assessment plan is in its fourth year and is addressed via a plan-do-study-adjust cycle that begins every fall term and follows one Social Work cohort from first term through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
1. Students will summarize knowledge of the history of social welfare, past and present.	• CAT • Essay papers • Journals for SW 290	• SW 218 • SW 290 • SOC 215 • PSCI 202
2. Students will recognize the National Association of Social Workers Code of Ethics and Preamble and discuss steps involved in becoming a member of the national organization.	• CAT • Essay papers • Journals for SW 290	• SW 218 • SW 290 • SOC 215 • PSCI 202
3. Students will demonstrate effective written and oral communication skills necessary in the field for effective social work practice.	• CAT • Essay papers • Journals for SW 290	• SW 218 • SW 290 • SOC 215 • PSCI 202

Program Objective Results

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: CAT – SW 218
Program Objective(s): 1, 2, 3
Goal Results: 70% pass rate/ cut score

All students were required to complete the CAT on lectures using Muddiest Point in order to identify students lecture topics that were not quite clear to them. We used as a wrap up at the end of the class period to help them understand better.

Reporting Period	# of Students Attempting	# Passing	% Passing
2011-2012	-	-	-
2010-2011	6	6	100%

Measurement Tool: Essay- SW 218,
Program Objective(s): 1, 2, 3
Goal Results: 100% pass rate;

It is understood that all students in the Social Work 218 Introduction course along with the other classroom courses were required to write at least one essay for the course.

Measurement Tool: Journals-SW 290
Program Objective(s): 1, 2, 3
Goal Results: 100% pass rate;

All students in the SW 290 Internship course are required to journal experiences had during their time at the agency. The director of academic Affairs oversaw one of the students in the internship this is the information reported.

Reporting Period	# of Students Attempting	# Passing	% Passing
2011-2012	2	1	50%
2010-2011	6	5	83%

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the general education competencies are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
Communication 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• CAAP • CAT • Class Presentation • Essay Assignments	• SW 218 • SW 290 • SOC 215 • PSCI 202
Mathematical and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• CAAP • Class Exercises	• SW 218 • SW 290 • SOC 215 • PSCI 202
Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned arguments.	• CAAP • Class Exercises • Essay Assignments	• SW 218 • SW 290 • SOC 215 • PSCI 202

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: Writing Across the Curriculum College Rubric

General Education Objective(s): 1

Goal Results: 90% “Excellent (4)”, ”Proficient (3)”, or ”Adequate (2)”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2011-2012				
• 1.1.1	1	1		
• 1.1.2	1	1		
• 1.1.3	1	1		
• 1.2.1	1	1		
• 1.2.2	1	1		
• 1.2.3	1	1		
• 1.3.1	1		1	
• 1.3.2	1		1	
• 1.4.1	2			
• 1.4.2	2			

Provides a clear, concise thesis statement.
1.1.1 Statement is clear and concise
1.1.2 Statement is well-reasoned
1.1.3 Statement leads to plentiful additional discussion
Provides supporting paragraphs which relate to the thesis.
1.2.1 Supporting paragraphs are well-reasoned
1.2.2 Supporting paragraphs clearly relate to the thesis
1.2.3 Supporting paragraphs are cohesive and logically developed
Correctly incorporates outside sources.
1.3.1 Provides relevant outside sources
1.3.2 Cites outside sources correctly
Uses appropriate grammar, syntax, punctuation, and spelling.
1.4.1 Writing is error free in all categories (sentence structure, punctuation, spelling and grammar).
1.4.2 Sentence structure and vocabulary are well-developed and varied.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)

General Education Objective(s): 1, 4-9

Goal Results: 50%

Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2010-2011	1(14%)	N/A	1(12%)	1(6%)	1(21%)

PDSA CYCLE RESULTS (2012-2013)

ANALYSIS

Problem Area

There is an issue in receiving assessment data from off-campus programs in order to have a more complete overview and for reporting purposes.

We also need to implement appropriate practicum settings for SW 290 Internship. Students need to have true hands-on experience in the field to better prepare and make sure this is truly the avenue they wish to pursue in their college and career choice.

Goal

I want to make sure I receive data on all students at all campuses taking social work courses.

Meet with and establish relationships with different social work agencies that will sponsor students for their internship/practicum.

Action Plan

During visits to all sites, the chair of the Student Learning Assessment Committee and I will do thorough assessment training with instructors stressing the importance of sending data to all program instructors for the purposes of reporting outcomes in the program.

I will contact all Social Work Instructors letting them know I will need information on students enrolled in their social work courses.

I have and will continue to contact agencies in the field of social work to build a working relationship for practicum for students in the Social Work program so that their internships will be true social work experience with the hours required at this level for completion of course and program.

Results

During assessment visits Mr. Morris and I both met with Instructors at both main and Off-Campus Programs. We stressed the need for data regarding assessment for the Social Work Program. I met with the Off-Campus Academy Instructor personally and asked that all data be sent to me regarding assessment tools used and results. I also met with the on-campus instructor and stressed the need for this data. To date, I have not received any data from either instructor and my attempts to contact them have gone unanswered.
In working with outside agencies for internships, I have developed a working relationship with two prison facilities that have accommodated one of our students in SW 290 Internship for spring. The elementary school also accommodated one of the SW 290 Internship students for spring. I hope to develop these and other agency relationships for the upcoming academic year.

PDSA CYCLE GOALS
(2012-2013)

ANALYSIS

Problem Area

There is an issue in receiving assessment data from off-campus programs and now main campus in order to have a more complete overview and for reporting purposes.

Goal

I want to make sure I receive data on all students at all campuses taking social work courses. I will teach all on campus courses in order to have a working-knowledge of the assessment done for each class.

Action Plan

I will and am instructing all main campus courses for the Social Work Program developing better assessment practices.

I will also diligently be contacting the adjunct instructor for Off-Campus for assessment material in his courses.

Results:

To be reported in the 2013-2014 Report.

Student Learning Assessment Program Report
TECHNICAL AND PROFESSIONAL WRITING
2013-2014

The Technical and Professional Writing Occupational Certificate program provides students with a selection of courses designed to enhance professional opportunities in a variety of communication fields. The program is intended to develop written, verbal, and digital communication skills to advance students in their fields of study. Taken alone, the Certificate serves as a basis for entry level positions in administrative or communication industries. Students will participate in a capstone project to create a deliverable product to illustrate their technical and professional communication skills.

Program Objectives

Upon completion of the Technical and Professional Writing Occupational Certificate program:

1) The student will write in an academic style (MLA, APA, Chicago) that can be utilized across the curriculum.
2) The student will create a comprehensive technical communication project that is measurable by current technical communication standards.
3) The student will utilize computer and emerging technology to produce technical communication products that are measurable by current standards.
4) Proposed: The student will demonstrate and consistently maintain industry ethical standards for professionalism, accuracy and quality in all projects. Rubric/standards based on current industry standards as defined by Society for Technical Communication (STC).

Overview

The Technical and Professional Writing assessment plan is in its fifth year and is addressed via the plan→do→study→adjust cycle that begins every fall term and follows one Technical and Professional Writing cohort from first term through graduation. The Program Assessment Report will be updated at the end of every spring term.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

PROGRAM OBJECTIVE	MEASUREMENT TOOLS	COURSES IN WHICH PROGRAM OBJECTIVES ARE PRESENTED &/OR MEASURED.
1. The student will write in an academic style (MLA, APA, Chicago) that can be utilized across the curriculum.	• Formal essays • Grant proposals • Technical communication projects • Pre/Post-Test	• ENG 102 • ENG 104 • ENG 105 • ENG 233 • ENG 235 • ENG 268 • ENG 293 • ENG 299
2. The student will create a comprehensive technical communication project that is measurable by current technical communication standards.	• Technical communication projects • Capstone project • Grant proposal • Formal essays	• ENG 168 • ENG 233 • ENG 268 • ENG 293
3. The student will utilize computer and emerging technology to produce technical communication products that are measurable by current standards.	• Technical communication projects • Capstone project • Formal essays	• ENG 168 • ENG 233 • ENG 293 • ENG 299

Program Objective Results:

This section presents the results of those measurement tools identified in the second column above.

Measurement Tool: Research Project (Eight component formal research paper)*
Program Objective(s): 1, 2, 3,
Goal Results: 100% of students will attain a grade of 70% or higher

Reporting Period	# of students attempting*	# passing	% passing
2009-2010	1	1	100% (mean=95%)
2010-2011	1	1	100% (mean=95%)
2011-2012	24	21	87.5%(mean=81%)
2012-2013	17 (fall 2012)	14	82% (mean=73.5%)
2013-2014	28	28	100% (mean N/A)

- 2009-2010 and 2010-2011 numbers reflect declared majors.
- 2011-2012 numbers reflects all students enrolled in ENG 104 regardless of declared major.
- 2010-2011: Student scores are due to strong writing skills. Only having one student presents difficulty in providing statistically significant data.
- 2011-2012: Most students passed the research project with a 70% or better if they attempted the project. I am very happy with their projects, and I don't know if the results are because I am a better teacher, or I have a different group of students.
- 2012-2013: Most students who attempted the research project received a 70% or better. We spend at least eight weeks on the project, so students have plenty of time to revise if necessary.
- 2013-2014: Numbers reflect all students in designated course(s) (ENG 104) who attempted a formal research paper-whether in certificate program or not
- Some of the eight elements (proposal, research question/focused thesis, working bibliography, outline, draft, global revision, works cited, abstract) are formally grade, and some are credit/no credit.

Measurement Tool: Technical Communication Project (such as User manual, lab or project report, formal proposal, grant request; evaluated using the standards defined in the course text)
Program Objective(s): 1, 2, 3
Goal Results: 100% of students will attain a grade of 70% or higher

Reporting Period	# students attempting*	# passing	% passing
2009-2010	1	1	100% (mean=92%)
2010-2011	1	1	100% (mean=95%)
2011-2012	25	24	96% (mean=91%)
2012-2013	24	18	75% (mean=70.7%)
2013-2014	7	6	85% (mean =81.6%)

- 2009-2010 and 2010-2011 numbers reflect declared majors.
- 2011-2012 numbers reflects all students enrolled in ENG 233 regardless of declared major.
- 2010-2011: Student scores are due to strong writing and communications skills. Only having one student presents difficulty in providing statistically significant data.
- 2011-2012: Students who attempted the technical communication projects in ENG 233 did well. The students claim that they enjoy the variety of projects and the practical nature of the assignments.
- 2012-2013: Students who actually completed the projects did very well in the course. Almost all completing students received a 70% or better.
- 2013-2014: Numbers reflect only students enrolled in a designated professional/technical writing course. (For this reporting period, the only eligible course offered was ENG 233)

Measurement Tool: Grant Proposal (ENG 268)
Program Objective(s): 1, 2, 3
Goal Results: 100% of students will achieve a score of 90%

Reporting Period	# students attempting	# passing	% passing
2009-2010	1	1	100% (mean=90%)
2010-2011	N/A		
2011-2012	1	1	100% (mean=95%)
2012-2013	1	1	100% (mean=90%)
2013-2014	N/A		

- 2011-2012: The student wrote an excellent grant for HUD. Between reading and responding to the text and writing the grant, I believe the student is now a proficient grant writer.
- 2012-2013: The student wrote two grants for the course. She used a new text for the class, and I think the grants were improved compared with previous semesters.
- 2013-2014: Grant writing course (ENG 268) not offered. No grant writing component in other courses.

Measurement Tool: MCC Gen Ed Competency Communication: Writing Rubric
Program Objective(s): 1, 2, 3
Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”
Legend: ENG 102 (No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2009-2010				
• 1.1.1	8	6	5	
• 1.1.2	8	6	5	
• 1.1.3	8	6	5	
• 1.2.1	7	8	4	
• 1.2.2	7	8	4	

• 1.2.3	7	8	4	
• 1.3.1 • 1.3.2	8 8	9 8		2
• 1.4.1 • 1.4.2	5 6	11 10	2 3	1
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2010-2011 • 1.1.1 • 1.1.2 • 1.1.3	 6 6 6	 9 9 9	 1 1	
• 1.2.1 • 1.2.2 • 1.2.3	8 8 8	7 7 7	1 1 1	
• 1.3.1 • 1.3.2	6 6	9 9	1 1	
• 1.4.1 • 1.4.2	5 9	9 9		2 2
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012 • 1.1.1 • 1.1.2 • 1.1.3	 3 3 3	 1 1 1	 7 7 7	
• 1.2.1 • 1.2.2 • 1.2.3	3 3 3	1 1 1	7 7 7	
• 1.3.1 • 1.3.2	3 3	1 1	6 6	1 1
• 1.4.1 • 1.4.2	2 2	8 8	1 1	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013 • 1.1.1 • 1.1.2 • 1.1.3	 23(4) 23(4) 23(4)	 67(20) 67(20) 67(20)	 16 16 16	
• 1.2.1 • 1.2.2 • 1.2.3	23(4) 23(4) 23(4)	67(20) 67(20) 67(20)	16 16 16	
• 1.3.1 • 1.3.2	23(4) 23(4)	32(5) 32(5)	15 15	
• 1.4.1	23(4) 23(4)	67(20) 67(20)	16 16	

• 1.4.2				
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2013-2014 • 1.1.1 • 1.1.2 • 1.1.3	 (5) (1) (1)	 (20) (28) (17)	 (5) (1) (12)	
• 1.2.1 • 1.2.2 • 1.2.3	(3) (13) (4)	(19) (11) (21)	(8) (6) (5)	
• 1.3.1 • 1.3.2	(5) (3)	(9) (6)	(16) (18)	 (3)
• 1.4.1 • 1.4.2	 (5)	(10) (22)	(13) (3)	(7)

- 2013-2014: This data group ("No ENG 102") is for fall and spring terms combined

Measurement Tool: Writing Rubric
Program Objective(s): 1, 2, 3
Goal Results: 90% "Excellent"/"Proficient"/ "Adequate"
Legend: ENG 102(Yes ENG 102)

Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2013-2014 • 1.1.1 • 1.1.2 • 1.1.3	 13 8 1	 13 21 25	 7 4 6	 1
• 1.2.1 • 1.2.2 • 1.2.3	5 9 3	11 6 26	14 18 4	3
• 1.3.1 • 1.3.2	7 3	11 18	12 12	3
• 1.4.1 • 1.4.2		4 22	23 10	6 1

- 2013-2014: This data group ("yes ENG 102") is for spring term only. In future reports, data will be collected for entire year.

Measurement Tool MCC Gen Ed Competency
Critical Thinking Rubric

Class: ENG 275

Assignment: Comparison/analysis of
two or more published reviews

General Education Objective(s): 6

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: Laboratory Science (No Lab Sci)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 6.1.1	8	3	5	
• 6.1.2	8	3	5	
• 6.1.3	8	3	5	
• 6.2.1	8	3	5	
• 6.2.2	8	3	5	
• 6.2.3	8	3	5	
• 6.3.1	8	3	5	
• 6.3.2	8	3	5	
• 6.3.3	8	3	5	
2013-2014				
• 6.1.1		(1)	(2)	(1)
• 6.1.2		(1)	(2)	(1)
• 6.1.3			(1)	(3)
• 6.2.1		(2)	(1)	(1)
• 6.2.2	(1)	(2)	(1)	
• 6.2.3			(2)	(2)
• 6.3.1		(2)	(2)	
• 6.3.2		(2)	(1)	(1)
• 6.3.3		(2)	(2)	

- 2013-2014: This data group (“No Lab Science”) is for spring term only.

Measurement Tool: MCC Gen Ed Competency
Critical Thinking Rubric

General Education Objective(s): 6

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: Lab Science (**YES** Lab Sci)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 6.1.1	8	29	6	1
• 6.1.2	15	15	13	1
• 6.1.3	8	12	19	5
• 6.2.1	13	21	10	
• 6.2.2	21	18	5	
• 6.2.3	3	13	22	6
• 6.3.1	4	31	9	
• 6.3.2	5	31	5	3
• 6.3.3	10	23	11	

- 2013-2014: This data group (“Yes Lab Science”) is for spring term only. In this case, data includes students from several classes and several compatible assignments. In future reports, this will be narrowed to specific course/assignment or reported as individual results

Measurement Tool: MCC Gen Ed Competency
Oral Communication Rubric

Program Objective(s): TBD
Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”
Legend: COM 102 (No COM 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014 • 2.1.1 • 2.1.2 • 2.1.3	 (1) (1) (1)	 (3) (3) (3)	 (6) (6) (6)	
• 2.2.1 • 2.2.2 • 2.2.3		(4) (5) (7)	(5) (2) (2)	(2)
• 2.3.1 • 2.3.2 • 2.3.3		(7) (6) (4)	(1) (2) (2)	(1) (1) (3)
• 2.4.1 • 2.4.2 • 2.4.3	(8)	(7) (1)	(2) (9)	
• 2.5.1 • 2.5.2 • 2.5.3				(9) (9) (9)

- 2013-2014: This data group (“No COM 102”) is for spring term only, and only reflects data for students enrolled in COM 102 during this term. Currently, there is no readily available tracking mechanism for all other students. If this category were tracked, we could generate a useful comparison to students who have and have not taken COM 102.
- Currently, neither COM 102 nor any other communication/presentation course is part of the curriculum for this program.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)

General Education Objective(s): 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2012-2013	1(55%)	1(53%)	1(61%)	1(62%)	1(54%)
2013-2014	NA	NA	NA	NA	NA

PDSA CYCLE 2012-2013
OPPORTUNITY FOR IMPROVEMENT

Analysis

Problem Area

The Professional and Technical Writing certificate program needs to be developed more fully in Moodle. Further, the program needs to be offered in the fall and spring schedules so that students are aware of the certificate.

Goal

Develop online courses for the certificate. Consult with the Vice President of Academic Affairs to assure the courses are in upcoming schedules.

Action Plan

Meet with the new English instructor to discuss certificate strategies and goals, so that there is no program attrition.

Results

Problem areas identified in previous report still exist. ENG 233 was offered in spring and summer 2014 sessions as an online course. It should be offered in fall 2014 as well. Other program courses (ENG 268 etcetera) were not offered at all.

Goals were communicated to new English instructor; however, ENG 233 is currently the only course in program with a Moodle presence. Action Plan was partially completed: we had meetings, and discussed options to improve program, but they did not include the topic of 'attrition' mentioned last year. Instead, we focused on improving access and updating program requirements.

PDSA CYCLE 2013-2014
OPPORTUNITY FOR IMPROVEMENT

Analysis

Problem Area

The Professional and Technical Writing certificate program needs to be more accurately described in catalogs and other publications. Program expectations and requirements should be reviewed. Classes required for this program need to be offered more consistently (probably in both fall and spring schedules). We should consider the pros and cons of offering a real-world course as well as or in place of the online version. Also, this program should be better publicized and

promoted, so that students are aware of the certificate. Currently, there are no students who identify themselves as pursuing this certification as their primary educational goal. Data collection is uneven, and does not consistently provide adequate basis for analysis of program/course effectiveness.

Goal

- Review one hundred percent of published material pertaining to these courses and this program for accuracy. Revise as needed.
- Review program requirements and revise as needed.
- Consult with the Vice President of Academic Affairs to advocate that these courses are consistently included in upcoming schedules. Offer every course in program at least once per calendar year-or remove from program material.
- Develop online courses for the certificate.
- Recruit students for this program. Meet with appropriate people to develop marketing and promotion of this program.
- Revise data collection methodology and/or instruments to facilitate more accurate reporting in the future and improve usefulness of data collected and analysis. A simple option would be to implement student self-reporting forms as part of course introductory procedures.

Action Plan

- Review and revise published program material.
- Review and revise program requirements. Meet with administration; compare to similar programs; submit suggested changes.
- Meet with VP regarding scheduling and program requirements. Suggest revision of course matrix to codify these changes.
- Develop online course templates and integrate with program revisions.
- In consultation with others, create viable basic marketing plan. The first phase is to create awareness. Have flyers and announcements ready for the fall open enrollment event. A second phase will be to explore ways to incentivize enrollment in this program.
- Create student self-reporting forms to capture data more effectively beginning in fall 2014 session. Revise SLAPR for this program by end of 2014-15 school year.

Results

The results of these goals will be reported in the 2014-2015 report.

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
ASSOCIATE OF ARTS - UNIVERSITY STUDIES
2013-2014

The University Studies option provides opportunities for students to explore areas of student interest while developing proficiencies in the liberal arts and selected areas of interest. Graduates of the program will have completed coursework that explores a variety of academic disciplines. Students intending to use the University Studies option as a basis for transfer should make certain that their course selections meet the requirements of the applicable degree at the college or university to which they plan to transfer.

General Education Competencies

Upon completion of the University Studies Degree Program:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).

2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Quantitative and Scientific Reasoning).

3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The University Studies assessment plan is in its fifth year and is addressed via the plan→do→study→adjust (PDSA) cycle that follows students from their first term through graduation.

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which Program Objectives Are Presented and/or Measured
Communication 1. Present ideas in writing. 2. Present ideas orally according to standard usage. 3. Demonstrate application of information technology.	• CAAP • ENG 299 Capstone Course	• ACS 100 • COM 102 • CIS 101 • ENG 102 • ENG 104 • ENG 299 • Lab Science Elective • Social/Behavioral Science Elective • Fine Arts/Humanities Elective
Quantitative and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process.	• CAAP • ENG 299 Capstone Course	• ENG 299 • MATH 110 • Lab Science Elective
Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned arguments.	• CAAP • ENG 299 Capstone Course	• ACS 100 • ENG 299 • Lab Science Elective • Social/Behavioral Science Elective • Fine Arts/Humanities Elective

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)

General Education Objective(s): 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-14	8(34%)	8(40%)	8(38%)	8(12%)	8(37%)
2012-13	2(55%)	2(52%)	2(58.5%)	2(52.5%)	2(56.5%)
2011-12	2(74%)	2(52%)	2(70.5%)	2(76%)	2(70.5%)
2010-11	6(51.8%)	5(66.8%)	6(56%)	6(54.2%)	6(61%)
2009-10	3(29%)	2(85%)	3(26%)	3(27%)	3(31%)

Measurement Tool: ENG 299: Capstone Portfolio Course

General Education Objective(s): 1-6
Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

General Education Competency: Writing

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 1.1.1	2	1	2	
• 1.1.2	2		3	
• 1.1.3	2	2	1	
• 1.2.1	2	1	2	
• 1.2.2	2	1	2	
• 1.2.3	2	1	2	
• 1.3.1	2		1	2
• 1.3.2	3			1
• 1.4.1	1		2	2
• 1.4.2	2	2	1	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 1.1.1		1		
• 1.1.2		1		
• 1.1.3		1		
• 1.2.1		1		
• 1.2.2		1		
• 1.2.3		1		

• 1.3.1		1		
• 1.3.2		1		
• 1.4.1		1		
• 1.4.2		1		

General Education Competency: Oral Presentation

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 2.1.1		2	1	
• 2.1.2		3		
• 2.1.3		1	1	1
• 2.2.1	1	1	1	
• 2.2.2	1	1	1	
• 2.2.3	1	1	1	
• 2.3.1				3
• 2.3.2			3	
• 2.3.3			1	2
• 2.4.1	1	1	1	
• 2.4.2	2	1		
• 2.4.3	3			
• 2.5.1		1		2
• 2.5.2			2	1
• 2.5.3	1			
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 2.1.1			1	
• 2.1.2			1	
• 2.1.3		1		
• 2.2.1			1	
• 2.2.2			1	
• 2.2.3		1		
• 2.3.1			1	
• 2.3.2		1		
• 2.3.3		1		
• 2.4.1		1		1
• 2.4.2		1		1
• 2.4.3	1			1
• 2.5.1				1
• 2.5.2				1
• 2.5.3				

General Education Competency: Information Technology

Year	Pass (4)	Fail (1)
2013-2014		
• 3.1.1	1	3
• 3.1.2	1	3
• 3.1.3	1	3
• 3.1.4	2	2
• 3.1.5	1	3
• 3.2.1	3	1
• 3.2.2	2	2
• 3.2.3	3	1
• 3.2.4	3	1
• 3.2.5	1	3
• 3.3.1	2	2
• 3.3.2	1	3
• 3.3.3	1	3
• 3.4.1	1	3
• 3.4.2	1	3
Year	**Pass (4)**	**Fail (1)**
2011-2012		
• 3.1.1		
• 3.1.2		
• 3.1.3		
• 3.1.4	1	
• 3.1.5		
• 3.2.1		1
• 3.2.2		1
• 3.2.3		1
• 3.2.4		1
• 3.2.5		1
• 3.3.1		1
• 3.3.2		
• 3.3.3		1
• 3.4.1		1
• 3.4.2		1

General Education Competency: Mathematical Reasoning

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 4.1.1	1	2		2
• 4.1.2		3		2
• 4.2.1		3		2
• 4.2.2		2	1	2
• 4.2.3				
• 4.3.1		2	1	2
• 4.3.2		2	1	2
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 4.1.1			1	
• 4.1.2			1	
• 4.2.1	1			
• 4.2.2	1			
• 4.2.3				
• 4.3.1		1		
• 4.3.2	1			

General Education Competency: Scientific Reasoning

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 5.1.1	2		2	
• 5.1.2		3		
• 5.2.1		2		
• 5.3.1		1		1
• 5.4.1	2	2		
• 5.5.1	1	1	1	
• 5.5.2	3	1		
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 5.1.1			1	
• 5.1.2			1	
• 5.2.1			1	
• 5.3.1			1	
• 5.4.1			1	
• 5.5.1		1		
• 5.5.2			1	

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Problem Area

There is a total lack of any assessment data being collected for students enrolled in this program of study.

Goal

Identify processes for collecting assessment data on students enrolled in the AA-University Studies degree program.

Action Plan

1) Discuss possible processes for collecting assessment data on students enrolled in the AA-University Studies degree program with the following stakeholders:
   - Student Learning Assessment Committee
   - Director of Enrollment Services (on how to best identify students presently enrolled in this program of study using Jenzabar (other than their last semester))
   - Vice-President of Academic Affairs (regarding how to identify and effectively staff a position responsible for overseeing the plan-do-study-adjust cycle of assessment for this program of study).

Results

To be discussed in the 2014-15 cycle Report.

STUDENT LEARNING ASSESSMENT PROGRAM REPORT
WIND ENERGY TECHNOLOGY
2013-2014

The Wind Energy Technology program at Mesalands Community College offers an educational program to meet the growing demand for trained and qualified wind energy technicians that provide maintenance on the turbines. The Occupational Certificate in Wind Energy Technology provides instruction in electrical theory and application, hydraulics theory and application, mechanical theory and application, wind energy theory, field safety theory and application, and turbine climbing and application. The Associate of Applied Science Degree in Wind Energy Technology provides instruction in wind turbine technology, turbine placement and construction, turbine operations and maintenance, monitoring and communications technology, tower safety, mechanical systems, electrical theory, power generation and distribution, hydraulics, and digital electronics in addition to those found in the Occupational Certificate. Students in these programs will be prepared for rewarding and profitable careers in this growing field.

Program Objectives

Upon completion of the Wind Energy Technology Associate of Applied Science Degree Program:

1. The student will identify electrical, mechanical, and hydraulic components found within various styles and vintages of wind machines, and demonstrate an understanding of their functions and maintenance requirements.
2. The student will differentiate between the various workplace positions of wind power facility team members, and describe the duties and responsibilities of each, including those relating to site construction and continuous operation.
3. The student will authoritatively discuss the market realities and future potential of wind energy technology and the employment opportunities it represents.
4. The student will discuss the basic advantages and disadvantages of modern renewable energy technologies, and compare them to extant non-renewable methods of energy production and conservation.
5. The student will demonstrate a functional understanding of numerous electrical concepts and components, including AC/DC theory and its application within electronic subsystems and power generation technologies.

6. The student will thoroughly demonstrate a complete understanding of workplace safety concepts and practices within the wind industry, including electrical safety, tool safety, Lock-Out/Tag Out, Personal Protective Equipment selection and use, Adult CPR, and Basic First Aid.

General Education Competencies

Upon completion of the Wind Energy Technology Associate of Applied Science Degree Program and in addition to the above mentioned program objectives:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Mathematical and Scientific Reasoning).
3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview

The Wind Energy Technology assessment plan is in its fifth year and is addressed via a plan→do→study→adjust assessment cycle that begins every fall semester and follows one Wind Energy Technology cohort from first semester through graduation.

Program Objectives Assessment Plan

All program objectives are measured with multiple tools. The following **Curriculum Map** outlines those measurement tools and courses in which the program objectives are presented and/or measured:

Program Objective	Measurement Tools	Courses In Which Program Objectives are Presented and/or Measured
1. The student will identify electrical, mechanical, and hydraulic components found within various styles and vintages of wind machines, and demonstrate an	• Curriculum Written Tests • Curriculum Performance Tests • CAT • Pre/Post-Test • Oral Tests • Research Papers	• WET 105 • WET 204 • WET 121 • WET 205 • WET 116

understanding of their functions and maintenance requirements.		
2. The student will differentiate between the various workplace positions of wind power facility team members, and describe the duties and responsibilities of each, including those relating to site construction and continuous operation.	• Project • Curriculum Written Tests • Curriculum Performance Tests • CAT • Pre/Post-Test • Oral Tests • Research Papers	• WET 101 • WET 217
3. The student will authoritatively discuss the market realities and future potential of wind energy technology and the employment opportunities it represents.	• Curriculum Written Tests • Curriculum Performance Tests • CAT • Pre/Post-Test • Oral Tests • Research Papers	• WET 101 • WET 217
4. The student will discuss the basic advantages and disadvantages of modern renewable energy technologies, and compare them to extant non-renewable methods of energy production and conservation.	• Performance Profile • Curriculum Written Tests • Curriculum Performance Tests • CAT • Pre/Post-Test • Oral Tests • Research Papers	• WET 101 • WET 217
5. The student will demonstrate a functional understanding of	• Curriculum Written Tests • Curriculum Performance Tests • CAT	• WET 105 • WET 115 • WET 205 • WET 116 • WET 219

numerous electrical concepts and components, including AC/DC theory and its application within electronic subsystems and power generation technologies.	• Pre/Post-Test • Oral Tests • Research Papers	• WET 218 • WET 217
6. The student will thoroughly demonstrate a complete understanding of workplace safety concepts and practices within the wind industry, including electrical safety, tool safety, Lock-Out/Tag Out, Personal Protective Equipment selection and use, Adult CPR, and Basic First Aid.	• Curriculum Written Tests • Curriculum Performance Tests • CAT • Pre/Post-Test • Oral Tests • Research Papers	• AHS 118R • WET 105 • WET 115 • WET 204 • WET 121 • WET 205 • WET 218 • WET 116 • WET 219 • WET 140 • WET 141 • WET 240 • WET 241

No program-level student learning assessment data was reported during the 2013-2014 academic cycle.

Program Objective Results

This section presents the raw data results of those measurement tools identified in the second column above.

Measurement Tool: Pre/Post Test
Program Objective(s): 1-6
Goal Results: 50% Improvement
Legend: Score(n)

Reporting Period/Topic	Pre-Test	Post-Test
2009-2010 • Introduction To Hydraulics • Wind Turbine Mechanical Systems • Introduction To Wind Energy • Electrical Theory I	54%(36) 63%(36)	83%(34) 85%(34)

• Electrical Theory II • Field Safety And Experience • Wind Turbine Operation And Maintenance • Introduction to Motors and Generators • Power Generation And Distribution • Wind Turbine Siting And Construction • Monitoring And Communication Technology • Wind Turbine Diagnosis And Repair • Digital Electronics		
Reporting Period/Topic	**Pre-Test**	**Post-Test**
2010-2011 • Introduction To Hydraulics • Wind Turbine Mechanical Systems • Introduction To Wind Energy • Electrical Theory I • Electrical Theory II • Field Safety And Experience • Wind Turbine Operation And Maintenance • Introduction to Motors and Generators • Power Generation And Distribution • Wind Turbine Siting And Construction • Monitoring And Communication Technology • Wind Turbine Diagnosis And Repair • Digital Electronics	36%(24) 23%(25)	85%(24) 77%(25)
Reporting Period/Topic	**Pre-Test**	**Post-Test**
2011-2012 • Introduction To Hydraulics • Wind Turbine Mechanical Systems • Introduction To Wind Energy • Electrical Theory I • Electrical Theory II • Field Safety And Experience • Wind Turbine Operation And Maintenance • Introduction to Motors and Generators • Power Generation And Distribution • Wind Turbine Siting And Construction • Monitoring And Communication Technology • Wind Turbine Diagnosis And Repair • Digital Electronics	N/A N/A 77.3%(8) 36%(24) N/ A N/A	79.1%(9) 85.8%(9) 90%(8) 85%(24) 91%(19) N/A
Reporting Period/Topic	**Pre-Test**	**Post-Test**
2012-2013 • Introduction To Hydraulics	30.6%(38)	64.8%(36)

• Wind Turbine Mechanical Systems • Introduction To Wind Energy • Electrical Theory I • Electrical Theory II • Field Safety And Experience • Wind Turbine Operation And Maintenance • Introduction to Motors and Generators • Power Generation And Distribution • Wind Turbine Siting And Construction • Monitoring And Communication Technology • Wind Turbine Diagnosis And Repair • Digital Electronics	29.7%(38) 47.5%(31) 42.9%(28) 50%(39) 35.3%(8)	75.1%(36) 74.5%(27) 74.3%(27) 76.4%(38) 94.3%(8)

Measurement Tool: Research Paper
Program Objective(s): 1, 2, 5, 6
Goal Results: 70%
Legend: %passing (group mean)

Reporting Period/Topic	# of Students Attempting	# Passing	% Passing
2012-2013			
• Introduction To Hydraulics	37	35	95%(Mean=82%)
• Wind Turbine Mechanical Systems	37	35	95%(Mean=82%)
• Introduction To Wind Energy	22	22	100%(Mean=80%)
• Electrical Theory I	24	24	100%(Mean=86%)
• Electrical Theory II	32	32	100%(Mean=81%)
• Field Safety And Experience	27	27	100%(Mean=77%)
• Wind Turbine Operation And Maintenance			
• Introduction to Motors and Generators			
• Power Generation And Distribution			
• Wind Turbine Siting And Construction	8	8	100%(Mean=85%)
• Monitoring And Communication Technology	8	8	100% (Mean=100%)
• Wind Turbine Diagnosis And Repair	8	8	100%(Mean=82%)
• Digital Electronics			

Reporting Period/Topic	# of Students Attempting	# Passing	% Passing
2011-2012			
• Introduction To Hydraulics	9	9	100% (Mean=85%)
• Wind Turbine Mechanical Systems	9	9	100% (Mean=85%)
• Introduction To Wind Energy			
• Electrical Theory I			
• Electrical Theory II	26	20	100% (Mean=84%)
• Field Safety And Experience			
• Wind Turbine Operation And Maintenance			
• Introduction to Motors and Generators	26	23	88% (Mean=83%)
• Power Generation And Distribution			
• Wind Turbine Siting And Construction			
• Monitoring And Communication Technology			
• Wind Turbine Diagnosis And Repair	19	13	68% (Mean=69%)
• Digital Electronics	19	18	95%(Mean=90%)

Reporting Period/Topic	# of Students Attempting	# Passing	% Passing
2010-2011			
• Introduction To Hydraulics	26	26	100% (Mean=96%)
• Wind Turbine Mechanical Systems	24	24	100% (Mean= 97%)
• Introduction To Wind Energy			
• Electrical Theory I	26	24	92% (Mean=78%)
• Electrical Theory II	26	20	77% (Mean=71%)
• Field Safety And Experience			
• Wind Turbine Operation And Maintenance			
• Introduction to Motors and Generators	26	23	88% (Mean=83%)

• Power Generation And Distribution • Wind Turbine Siting And Construction • Monitoring And Communication Technology • Wind Turbine Diagnosis And Repair • Digital Electronics	24	22	92% (Mean=86%)

Measurement Tool: Curriculum Performance Tests
Program Objective(s): 1-6
Goal Results: 90% pass rate, 70% cut score
Legend: %passing (group mean)

Reporting Period/Topic	# of Students Attempting	# Passing	% Passing
2010-2011			
• Introduction To Hydraulics	26	26	100%(Mean=94%)
• Wind Turbine Mechanical Systems	26	26	100%(Mean=95%)
• Introduction To Wind Energy • Electrical Theory I • Electrical Theory II • Field Safety And Experience • Wind Turbine Operation And Maintenance • Introduction to Motors and Generators • Power Generation And Distribution	26	26	100%(Mean=97%)
• Wind Turbine Siting And Construction • Monitoring And Communication Technology	24	24	100%(Mean=98%)
• Wind Turbine Diagnosis And Repair • Digital Electronics	24	24	100%(Mean=99%)

Reporting Period/Topic	# of Students Attempting	# Passing	% Passing
2011-2012			
• Introduction To Hydraulics	9	9	100% (Mean=94%)
• Wind Turbine Mechanical Systems	9	9	100% (Mean=91%)
• Introduction To Wind Energy	26	26	100%(Mean=78%)
• Electrical Theory I • Electrical Theory II • Field Safety And Experience • Wind Turbine Operation And Maintenance • Introduction to Motors and Generators • Power Generation And Distribution • Wind Turbine Siting And Construction • Monitoring And Communication Technology	8	8	100% (Mean=90%)
• Wind Turbine Diagnosis And Repair	19	19	NA
• Digital Electronics	18	16	89% (Mean=85%)

General Education Competencies Assessment Plan

General education competencies are measured with multiple tools.
The following **Curriculum Map** outlines those measurement tools and courses in which the general education competencies are presented and/or measured:

General Education Competencies	Measurement Tools	Courses In Which General Education Competencies Are Presented and/or Measured
Communication 1. Writing 2. Oral Presentation 3. Information Technology	• ENG 299 • CAAP • CAT • Class Presentation • Writing Across The Curriculum Rubric • Oral Presentation Rubric • Critical Thinking Rubric	• ACS 100 • COM 102 • CIS 101 • ENG 102 • ENG 233 • ENG 299 • GEOL 141
Mathematical and Scientific Reasoning 4. Demonstrate mathematical principles. 5. Demonstrate scientific reasoning. 6. Apply scientific methods to the inquiry process	• ENG 299 • CAAP • Capstone Project • Laboratory Exercise • Laboratory Report • Writing Across The Curriculum Rubric • Oral Presentation Rubric • Critical Thinking Rubric	• GEOL 141 • MATH 107 • ENG 299
Critical Thinking 7. Read and analyze complex ideas. 8. Locate, evaluate and apply research information. 9. Evaluate and present well-reasoned	• ENG 299 • CAAP • Capstone Project • Laboratory Exercise • Writing Across The Curriculum Rubric • Oral Presentation Rubric • Critical Thinking Rubric	• ACS 100 • ENG 102 • ENG 233 • ENG 299 • GEOL 141

General Education Competencies Results

This section presents the general education competencies results. The Mesalands Community College created rubrics were used as the measurement tool each time the specific competency was evaluated during the program.

Measurement Tool: Writing Across the Curriculum College Rubric-Research Paper: WET 121 Wind Turbine Mechanical Systems

General Education Objective(s): 1

Goal Results: 90% "Excellent(4)"/"Proficient(3)"/ "Adequate(2)"

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 1.1.1	4(1)	10(5)	5(6)	3(3)
• 1.1.2	4(1)	10(5)	5(6)	3(3)
• 1.1.3	4(1)	10(5)	5(6)	3(3)
• 1.2.1	4(3)	9(3)	6(6)	3(3)
• 1.2.2	4(3)	9(3)	6(6)	3(3)
• 1.2.3	4(3)	9(3)	6(6)	3(3)
• 1.3.1	5(2)	8(5)	3(5)	6(3)
• 1.3.2	5(2)	8(5)	3(5)	6(3)
• 1.4.1	4(0)	2(3)	4(4)	12(8)
• 1.4.2	4(0)	2(3)	4(4)	12(8)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 1.1.1	4(9)	2(9)	2(9)	1(9)
• 1.1.2	4(9)	2(9)	2(9)	1(9)
• 1.1.3	4(9)	2(9)	2(9)	1(9)
• 1.2.1	5(9)	1(9)	3(9)	
• 1.2.2	5(9)	1(9)	3(9)	
• 1.2.3	5(9)	1(9)	3(9)	
• 1.3.1	5(9)	1(9)	2(9)	1(9)
• 1.3.2	5(9)	1(9)	2(9)	1(9)
• 1.4.1	3(9)	2(9)	1(9)	3(9)
• 1.4.2	3(9)	2(9)	1(9)	3(9)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2009-2010				
• 1.1.1	18(10)			

• 1.1.2 • 1.1.3	18(10) 18(10)			
• 1.2.1 • 1.2.2 • 1.2.3	18(10) 18(10) 18(10)			
• 1.3.1 • 1.3.2	14(9) 14(9)			4(1)
• 1.4.1 • 1.4.2	18(10) 18(10)			

Measurement Tool: Writing Across the Curriculum College Rubric: Research Paper WET 101 Introduction to Wind Energy

General Education Objective(s): 1

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013 • 1.1.1 • 1.1.2 • 1.1.3	 2(0) 1(0) 1(0)	 7(1) 5(3) 6(3)	 3(7) 5(6) 4(6)	 0(2) 1(1) 1(1)
• 1.2.1 • 1.2.2 • 1.2.3	2(0) 2(0) 2(0)	6(2) 4(2) 4(2)	3(4) 5(4) 4(5)	0(2) 1(1) 1(1)
• 1.3.1 • 1.3.2	2(0) 2(0)	7(3) 8(3)	3(6) 2(6)	0(1) 0(1)
• 1.4.1 • 1.4.2	1(0) 1(0)	4(1) 5(0)	6(8) 6(9)	1(1) 0(1)

Measurement Tool: Writing Across the Curriculum College Rubric: Research Paper WET 204 Introduction to Hydraulics

General Education Objective(s): 1

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 1.1.1	4(1)	10(5)	5(6)	3(3)
• 1.1.2	4(1)	10(5)	5(6)	3(3)
• 1.1.3	4(1)	10(5)	5(6)	3(3)
• 1.2.1	4(3)	9(3)	6(6)	3(3)
• 1.2.2	4(3)	9(3)	6(6)	3(3)
• 1.2.3	4(3)	9(3)	6(6)	3(3)
• 1.3.1	5(2)	8(5)	3(5)	6(3)
• 1.3.2	5(2)	8(5)	3(5)	6(3)
• 1.4.1	4(0)	2(3)	4(4)	12(8)
• 1.4.2	4(0)	2(3)	4(4)	12(8)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 1.1.1	4(9)	2(9)	2(9)	1(9)
• 1.1.2	4(9)	2(9)	2(9)	1(9)
• 1.1.3	4(9)	2(9)	2(9)	1(9)
• 1.2.1	5(9)	1(9)	3(9)	
• 1.2.2	5(9)	1(9)	3(9)	
• 1.2.3	5(9)	1(9)	3(9)	
• 1.3.1	5(9)	1(9)	2(9)	1(9)
• 1.3.2	5(9)	1(9)	2(9)	1(9)
• 1.4.1	3(9)	2(9)	1(9)	3(9)
• 1.4.2	3(9)	2(9)	1(9)	3(9)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2010-2011				
• 1.1.1	10(16)			
• 1.1.2	10(16)			
• 1.1.3	10(16)			
• 1.2.1	10(16)			
• 1.2.2	10(16)			
• 1.2.3	10(16)			

• 1.3.1	6(10)	3(2)	1(1)	(3)
• 1.3.2	10(13)			(3)
• 1.4.1	9(15)	1		(1)
• 1.4.2	10(16)			
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2009-2010				
• 1.1.1	19(9)	(1)	(1)	
• 1.1.2	19(8)	(1)	(1)	
• 1.1.3	19(8)		(1)	
• 1.2.1	19(8)	(1)	(1)	
• 1.2.2	19(10)			
• 1.2.3	19(9)	(1)		
• 1.3.1	16(9)	(1)		
• 1.3.2	16(9)	(1)		
• 1.4.1	17(8)	2(2)		
• 1.4.2	19(9)	(1)		

Measurement Tool: Writing Across the Curriculum College Rubric-Research Paper: WET 105 Electrical Theory I

General Education Objective(s): 1

Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

Legend: ENG 102(No ENG 102)

Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 1.1.1	2(1)	6(3)	3(6)	1(1)
• 1.1.2	2(2)	7(3)	3(5)	0(1)
• 1.1.3	2(1)	6(1)	4(7)	0(2)
• 1.2.1	3(1)	4(4)	4(6)	1(0)
• 1.2.2	3(1)	6(1)	3(7)	0(2)
• 1.2.3	2(1)	6(2)	4(6)	0(2)
• 1.3.1	4(1)	4(6)	3(4)	1(0)
• 1.3.2	4(1)	5(6)	2(3)	1(1)
• 1.4.1	2(0)	6(4)	3(7)	1(0)
• 1.4.2	2(1)	6(4)	4(5)	0(1)

Measurement Tool: Writing Across the Curriculum College Rubric-Research Paper: WET 115 Field Safety and Experience

General Education Objective(s): 6

Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 1.1.1	4(3)	7(6)	2(5)	0(0)
• 1.1.2	4(3)	7(6)	2(5)	0(0)
• 1.1.3	4(3)	7(6)	2(5)	0(0)
• 1.2.1	4(3)	7(6)	2(5)	0(0)
• 1.2.2	4(3)	7(6)	2(5)	0(0)
• 1.2.3	4(3)	7(6)	2(5)	0(0)
• 1.3.1	4(3)	7(6)	2(5)	0(0)
• 1.3.2	4(3)	7(6)	2(5)	0(0)
• 1.4.1	4(3)	7(6)	2(5)	0(0)
• 1.4.2	4(3)	7(6)	2(5)	0(0)

Measurement Tool: Writing Across the Curriculum College Rubric-Research Paper: WET 205 Electrical Theory ll

General Education Objective(s): 1

Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 1.1.1	5(1)	9(2)	7(7)	0(2)
• 1.1.2	6(0)	9(3)	6(8)	0(1)
• 1.1.3	5(1)	9(2)	5(8)	1(1)
• 1.2.1	5(1)	8(0)	6(9)	2(2)
• 1.2.2	5(0)	10(1)	5(10)	1(1)
• 1.2.3	5(1)	10(3)	5(7)	1(1)
• 1.3.1	6(1)	10(2)	3(8)	2(1)
• 1.3.2	5(1)	10(3)	6(6)	0(2)
• 1.4.1	4(0)	5(2)	10(9)	2(1)
• 1.4.2	5(0)	7(2)	9(8)	0(2)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2011-2012				
• 1.1.1	3(8)	2(8)	2(8)	1(8)
• 1.1.2	3(8)	2(8)	2(8)	1(8)
• 1.1.3	3(8)	2(8)	2(8)	1(8)
• 1.2.1	4(8)	1(8)	3(8)	
• 1.2.2	4(8)	1(8)	3(8)	
• 1.2.3	4(8)	1(8)	3(8)	
• 1.3.1	4(8)	1(8)	2(8)	1(8)
• 1.3.2	4(8)	1(8)	2(8)	1(8)
• 1.4.1	3(8)	1(8)	1(8)	3(8)
• 1.4.2	3(8)	1(8)	1(8)	3(8)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2010-2011				
• 1.1.1	8(14)	(2)	1	
• 1.1.2	8(9)	(7)	1	
• 1.1.3	3(9)	4(3)	2(3)	(1)
• 1.2.1	6(9)	2(5)	1(2)	
• 1.2.2	7(15)	2	(1)	
• 1.2.3	4(7)	4(6)	1(3)	
• 1.3.1	6(10)	2(1)	(2)	1(3)
• 1.3.2	5(8)	3(4)	(1)	1(3)
• 1.4.1	2(8)	4(8)	3	
• 1.4.2	2(6)	5(10)	2	

Measurement Tool: Writing Across the Curriculum College Rubric: Research Paper WET 210 Wind Turbine Siting and Construction

General Education Objective(s): 1

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 1.1.1	4(0)	2(0)	2(0)	0(0)
• 1.1.2	4(0)	2(0)	2(0)	0(0)
• 1.1.3	4(0)	2(0)	2(0)	0(0)
• 1.2.1	4(0)	3(0)	1(0)	0(0)
• 1.2.2	4(0)	3(0)	1(0)	0(0)
• 1.2.3	4(0)	3(0)	1(0)	0(0)
• 1.3.1	5(0)	0(0)	2(0)	1(0)
• 1.3.2	5(0)	0(0)	2(0)	1(0)
• 1.4.1	2(0)	3(0)	0(0)	3(0)
• 1.4.2	2(0)	3(0)	0(0)	3(0)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2010-2011				
• 1.1.1	20(3)		1	
• 1.1.2	20(3)		1	
• 1.1.3	20(3)		1	
• 1.2.1	20(3)		1	
• 1.2.2	20(3)		1	
• 1.2.3	20(3)		1	
• 1.3.1	16(2)		1	4(1)
• 1.3.2	17(2)			4(1)
• 1.4.1	17(3)	2	1	1
• 1.4.2	21(3)			
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2009-2010				
• 1.1.1	14(2)	(1)		
• 1.1.2	14(2)	(1)		
• 1.1.3	14(2)	(1)		
• 1.2.1	14(2)	(1)		
• 1.2.2	14(2)	(1)		
• 1.2.3	14(2)	(1)		
• 1.3.1	6(1)			8(2)
• 1.3.2	6(1)			
• 1.4.1	14(3)			
• 1.4.2	14(3)			

Measurement Tool: Writing Across the Curriculum College Rubric: Research Paper WET 216 Digital Electronics

General Education Objective(s): 1

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 1.1.1	14(2)	6	(1)	1
• 1.1.2	15(1)	4(1)	2(1)	
• 1.1.3	15(1)	3(1)	2	1(1)
• 1.2.1	15(1)	1(1)	5(1)	
• 1.2.2	16(2)	3	1(1)	1
• 1.2.3	16(2)	2	3	(1)
• 1.3.1	18(1)			3(2)
• 1.3.2	17(1)	1		3(2)
• 1.4.1	7(1)	7(1)	5	2(1)
• 1.4.2	13(2)	5	3	(1)

Measurement Tool: Writing Across the Curriculum College Rubric: Research Paper WET 212 Monitoring and Communication Technology

General Education Objective(s): 1

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: ENG 102(No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2010-2011				
• 1.1.1	16(1)	4(1)	1(1)	
• 1.1.2	18(1)	2(1)	1	(1)
• 1.1.3	18(2)	2		1(1)
• 1.2.1	14(1)	6(1)		1(1)
• 1.2.2	18(1)	2(1)	1	(1)
• 1.2.3	18(1)	2(1)	(1)	1
• 1.3.1	20(3)			1
• 1.3.2	19(2)	1		1(1)
• 1.4.1	4(1)	9	7(1)	1(1)
• 1.4.2	14(1)	4(1)	2	1(1)

Measurement Tool: Writing Across the Curriculum College Rubric: Research Paper WET 218 SCADA and Electronics of Wind Turbines

General Education Objective(s): 1

Goal Results: 90% “Excellent”/”Proficient”/ ”Adequate”

Legend: ENG 102 (No ENG 102)

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2012-2013				
• 1.1.1	1(0)	6(0)	0(1)	0(0)
• 1.1.2	1(0)	6(0)	0(1)	0(0)
• 1.1.3	0(0)	7(0)	0(1)	0(0)
• 1.2.1	0(0)	7(0)	0(1)	0(0)
• 1.2.2	1(0)	6(0)	0(1)	0(0)
• 1.2.3	1(0)	6(0)	0(1)	0(0)
• 1.3.1	1(0)	6(0)	0(1)	0(0)
• 1.3.2	1(0)	6(0)	0(1)	0(0)
• 1.4.1	0(0)	7(0)	0(1)	0(0)
• 1.4.2	1(0)	6(0)	0(1)	0(0)
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2011-2012				
• 1.1.1	3	9	6	1
• 1.1.2	4	11	3	1
• 1.1.3	4	8	6	1
• 1.2.1	3	7	8	1
• 1.2.2	3	8	7	1
• 1.2.3	3	8	7	1
• 1.3.1	4	10	4	1
• 1.3.2	3	11	4	1
• 1.4.1	2	7	9	1
• 1.4.2	3	11	4	1

Measurement Tool: ACT Collegiate Assessment of Academic Proficiency (CAAP)
General Education Objective(s): 1, 4-9
Goal Results: 50%
Legend: n (Mean Score)

Year	Writing	Math	Reading	Critical Thinking	Science
2013-2014	14(23.1%)	14(41.4%)	14(40%)	14(27.6%)	14(27.7%)
2012-2013	7(59.9%)	7(57%)	7(59%)	7(60%)	7(58.1%)
2011-2012	20(43.9%)	20(43.4%)	20(55.8%)	20(48.5%)	20(54.1%)
2010-2011	22(44.7%)	3(75.7%)	22(58.8%)	22(51.5%)	22(50%)
2009-2010	12(35.0%)	1(90%)	13(49.6%)	18(41.5%)	17(54.8%)

General Education Objective(s): 1-6
Goal Results: 90% “Excellent(4)”/”Proficient(3)”/ ”Adequate(2)”

General Education Competency: Writing

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 1.1.1	10	3		
• 1.1.2	10	3		
• 1.1.3	10	3		
• 1.2.1	12		1	
• 1.2.2	12		1	
• 1.2.3	9	3	1	
• 1.3.1	6			7
• 1.3.2	5			1
• 1.4.1	3	2	6	2
• 1.4.2	6	3	4	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 1.1.1		4	1	
• 1.1.2		4	1	
• 1.1.3		4	1	
• 1.2.1		4	1	
• 1.2.2		4	1	
• 1.2.3		4	1	
• 1.3.1		5		
• 1.3.2		5		
• 1.4.1		5		
• 1.4.2		5		

General Education Competency: Oral Presentation

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 2.1.1		7	1	
• 2.1.2		3	5	
• 2.1.3		3	2	3
• 2.2.1	1	5	2	
• 2.2.2	1	5	2	
• 2.2.3	1	5	2	
• 2.3.1		1	5	2
• 2.3.2	1	2	5	
• 2.3.3	2		3	3
• 2.4.1	1	7		
• 2.4.2	3	5		
• 2.4.3	6	2		
• 2.5.1				8
• 2.5.2	2	2	1	3
• 2.5.3	4			
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 2.1.1	2	1	2	
• 2.1.2	1	1	3	
• 2.1.3	1	1	3	
• 2.2.1	1	2	2	
• 2.2.2	1	2	2	
• 2.2.3	1	2	2	
• 2.3.1	1	3	1	
• 2.3.2	1	3	1	
• 2.3.3	1	3	1	
• 2.4.1	1	2	1	1
• 2.4.2	1	4		
• 2.4.3	1	1	2	
• 2.5.1		2	1	2
• 2.5.2		3	1	1
• 2.5.3				

General Education Competency: Information Technology

Year	Pass (4)	Fail (1)
2013-2014		
• 3.1.1	1	11
• 3.1.2	1	11
• 3.1.3	1	11
• 3.1.4	1	11
• 3.1.5	1	11
• 3.2.1	5	7
• 3.2.2	5	7
• 3.2.3	10	2
• 3.2.4	11	1
• 3.2.5	1	11
• 3.3.1	8	4
• 3.3.2	8	4
• 3.3.3	8	4
• 3.4.1	1	11
• 3.4.2	1	11
Year	**Pass (4)**	**Fail (1)**
2012-2013		
• 3.1.1	2	3
• 3.1.2	2	3
• 3.1.3	4	1
• 3.1.4	5	
• 3.1.5	2	4
• 3.2.1	5	
• 3.2.2	4	1
• 3.2.3	4	1
• 3.2.4	5	
• 3.2.5	4	1
• 3.3.1	3	2
• 3.3.2	1	4
• 3.3.3	1	4
• 3.4.1	1	4
• 3.4.2	1	4

General Education Competency: Mathematical Reasoning

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 4.1.1	5	2	6	
• 4.1.2	3	2	8	
• 4.2.1	2	4	7	
• 4.2.2	1	4	6	1
• 4.2.3	2			
• 4.3.1	1	5	7	
• 4.3.2	1	3	9	
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 4.1.1	2	3		
• 4.1.2		4	1	
• 4.2.1	1	4		
• 4.2.2	2	2	1	
• 4.2.3				
• 4.3.1	1	3	1	
• 4.3.2	2	2	1	

General Education Competency: Scientific Reasoning

Year	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
2013-2014				
• 5.1.1	4	4	1	4
• 5.1.2	5	3	1	3
• 5.2.1	4	1		8
• 5.3.1	1	2		10
• 5.4.1	6	2	1	3
• 5.5.1	2	4	1	4
• 5.5.2	3	1	3	5
Year	**Excellent (4)**	**Proficient (3)**	**Adequate (2)**	**Inadequate (1)**
2012-2013				
• 5.1.1	1	3		1
• 5.1.2	2	1	1	1
• 5.2.1	2	2		1
• 5.3.1		2	1	1
• 5.4.1	1	4		
• 5.5.1	1	2	1	1
• 5.5.2	1	2	1	1

PDSA CYCLE 2012-2013
OPPORTUNITIES FOR IMPROVEMENT

ANALYSIS

Area Describing Learning Improvements

1.. Although Program Objectives 1-6 were met during the 2011-2012 Cycle, the 68% result on the Wind Turbine Diagnosis and Repair was an area of concern. This particular skill set is vital to students becoming eligible for promotion and showing their readiness for more responsibility so their skill here needs to be enhanced. The area is almost one of intuitive ability based on experience gained in the field but to enhance that ability more lab time on actual components brought to the labs from local wind farms has been allocated, this has had a positive effect on training.

2. During the reporting period 2012-2013 it was noted that the course materials scheduled to be used were deficient in both WET 121 Mechanical Systems and WET 204 Hydraulic Systems. The scheduled materials did not cover the proper aspects of each system (Program Objective 1). (This was identified early so it was acted upon during the semester in which identification took place.)

3. Program Objective 6 did not lead to OSHA 10 certification. (This was identified early so it was acted upon during the semester in which identification took place.)

Goal

1. This improvement was assessed for the 2012-2013 period and a passing average of 75% was the goal.

2. Introduce new course materials for WET 121 Mechanical Systems and WET 204 Hydraulic Systems, by using the current lab materials as course objectives, and reaffirming each topic with scheduled labs. (Program Objective 1)

3. The curriculum was modified so that student learning would lead to OSHA 10 certification. Program Objective 6

Action Plan

1. Increased emphasis on turbine trouble shooting and repair was a point of emphasis in the wind faculty course review and semester evaluations.

2. Implement new course materials into the current program. (Program Objective 1)

3. An instructor was assigned and trained in OSHA 10. Program Objective 6

Results

(The addressing of the 2012-2013 opportunities for improvement occurred during the same reporting cycle as the problems were identified; therefore, goals were established and an action plan was implemented to address these concerns early on so it was acted upon during the semester in which identification took place.)

1. For the 2012-2013 reporting period, the pass rate for the Wind Turbine Diagnosis and Repair was 100% as opposed to the 68% pass rate in the previous reporting period.

2. The changes implemented into WET 121 Mechanical Systems and WET 204 Hydraulic Systems, were met with success. Student learning improved with the changes made. All students had the chance to prove the knowledge gained in class, through each lab procedure. (Program Objective 1)

3. Each student was trained in OSHA 10 and received their OSHA 10 certification. (Program Objective 6)

PDSA CYCLE 2013-2014
OPPORTUNITIES FOR IMPROVEMENT

No analysis was made of the assessment data collected during the 2013-2014 academic cycle.