

Improving Student Learning

Summer 2014



Student Learning Outcomes Assessment (SLOA) Report

In 2009, Luna Community College took a progressive approach to student learning with a reorganization of learning goals for all programs of study and implementation of an institutional assessment plan. This summer 2014 report on improving student learning is a testimony to LCC's commitment to assessment.

Vidal Martinez, Ed.D.
Vice President of Instruction
Luna Community College

July 29, 2014

LCC's Principles of Assessment

- Primary goal of Assessment is to continuously improve student learning at Luna Community College.
- Assessment is an extension to the needs and attention of students at Luna Community College.
- Assessment is ongoing at Luna Community College.
- Assessment activities must be useful to the individuals that conduct them, to programs, and to Luna Community College.

LCC's Assessment Plan

All course offerings, including degree and certificate programs, at Luna Community College are required to follow the four step assessment process. They include:

- A list of expected learning outcomes
- Assessment tools that directly measure those learning outcomes
- The results of the data, and
- How the data will be used to improve student learning

SUMMER 2014
Student Learning Outcomes Assessment Participants
July 29, 2014

Learning Resource Center – Lecture Hall
8:30am

- Shirley Marlow – Humanities
- Chuck Peterson – STEM
- Elissa Flores – STEM
- Angelo Archuleta - Humanities
- Dan Twitchell – Humanities
- Susan Olson-Smith – Allied Health
- Conni Reichert – Allied Health
- Angelo Archuleta – Humanities
- Adrienne O’Brien – Trades
- Eugene Sandoval -- Trades
- Elaine Ortega -- Business
- Kayleen R Encinias -- Administration

Luna Community College: Improving Student Learning –Summer 2014 Report**Table of Contents****Course Assessment Reports*****Math075 – General Math****Elissa Flores**Page 6****Span101 – Beginning Spanish I****Angelo Archuleta**Page 10****Hist101 – Western Civilization to 1500****Daniel Twitchell**Page 13****Hist220 – New Mexico History****Karen Sickler**Page 16****AH113E – Medical Terminology****Susan Olson-Smith**Page 18****Couse Evaluations:******Auto124 – Heating and Air conditioning****Eugene Sandoval**Page 20****Math095 – Algebra with Applications****Chuck Peterson**Page 21*

**DEPARTMENT OF SCIENCE, TECHNOLOGY, ENGINEERING, and
MATHEMATICS (STEM)**

Math 075 General Mathematics

Prepared by Elissa B. Flores, Adjunct Math Instructor

PURPOSE

The purpose of this report is to evaluate the effectiveness of the Math 075 General Mathematics class and investigate methods to improve student learning.

COURSE DESCRIPTION

This course presents skills and concepts of arithmetic with an introduction to basic algebra for the student needing to strengthen his/her mathematical background. Emphasis is placed on ratios, proportions, percent, measurements, graphs, geometric concepts, real number systems concepts, signed numbers, and linear equation in one variable.

LEARNING OUTCOMES – Math 075

Upon completion of the course with a C (70%) or better the student will be able to:

1. Write percent as a fraction and solve percent problems.
2. Use signed number to perform addition, subtraction, multiplication, and division.
3. Read graphs and tables for statistical information, have a basic understanding of statistics.
4. Use and understand algebraic formulas to solve algebraic equations.
5. Understand and perform conversions between U.S. Customary Units and Metric Units.
6. Understand basic geometry, including perimeter, circumference, area, volume, similar triangles, square roots, and the Pythagorean Theorem.

NM State Competencies

C1. Display, analyze, and interpret data. Discriminate among different types of data displays for presentations. Draw conclusions from the data presented. Analyze the implication of the conclusion to real life situations.

C2. Demonstrate knowledge of problem-solving strategies. For a given problem, gather and organize relevant information. Choose an effective strategy to solve the problem. Express and reflect on the reasonableness of the solution to the problem.

C3. Construct valid mathematical explanations. Students should: Use mathematics to model and explain real-life problems.

C4. Demonstrate an appreciation for the extent, application, and beauty of mathematics.

C5. Students should: Recognize the inherent value of mathematical concepts, their connection to structures in nature, and their implication for everyday life.

This report covers one section of Math 075 that was delivered in the Summer of 2014 to 23 students. There were 2 students who withdrew and 3 students who never reported to class. The average is computed with the original 28 students on the roster.

COMPETENCY RATING FORM – MATH 075 Summer 2014

Student ID#	C1	C2	C3	C4	C5	Average	
1.	-	-	-	-	-	-	
2.	-	-	-	-	-	-	
3.	4	4	4	4	4	4	
4.	-	-	-	-	-	-	
5.	-	-	-	-	-	-	
6.	5	4	5	5	5	4.8	
7.	3	3	3	3	3	3	
8.	4	4	4	4	4	4	
9.	3	3	3	3	3	3	
10.	2	3	3	3	3	2.8	
11.	4	4	4	4	4	4	
12.	4	3	4	4	4	3.8	
13.	4	4	4	4	4	4	
14.	4	4	4	4	3	3.8	
15.	4	4	4	4	4	4	
16.	4	4	4	4	4	4	
17.	4	4	4	4	4	4	
18.	3	2	3	2	2	2.4	
19.	4	4	4	4	4	4	
20.	2	2	2	3	2	2.2	
21.	-	-	-	-	-	-	
22.	5	5	5	5	5	5	
23.	4	5	5	5	5	4.8	
24.	3	3	3	3	3	3	
25.	3	3	3	3	3	3	
26.	2	1	2	2	2	1.8	
27.	2	1	2	2	2	1.8	
28.	3	3	3	3	3	3	
AVG	--	2.86	2.86	2.93	2.93	2.93	2.76

PRE TEST/ POST TEST COMPARISON

Pre-Test = % Score Post Test = Final Exam % Score			
Student ID #		PRE-TEST	Final
		Exam	% Score
1.		13	-
2.		0	-
3.		0	81
4.		0	-
5.		-	-
6.		27	96
7.		47	90
8.		17	88
9.		47	63
10.		7	54
11.		33	79
12.		43	73
13.		27	84
14.		37	69
15.		0	68
16.		13	75
17.		37	79
18.		87	48
19.		27	86
20.		23	58
21.		-	-
22.		30	86
23.		0	71
24.		10	65
25.		47	66
26.		37	41
27.		40	56
28.		70	84
29.			
30.			

OVERALL STUDENT PERFORMANCE

- **68% Satisfactory** (Grades of A, B, or C)
 - A – 7%
 - B – 43%
 - C – 18%
- **25% Unsatisfactory** (Grades of D or F)
 - D – 0
 - F – 14%
 - **Withdraw (2) or No-show (3)**
 - Withdraw – 7%
 - No-show – 11%
- **68% Retention**

Summary of Conclusions:

Teaching Strategies used in Math 075 General Mathematics

- **Lecture**
- **In-class examples**
- **Interactive Notebook for notes**
- **Individual practice**
- **Partner Quiz (Review)**
- **Retake tests and correct homework (MyMathLab)**

Areas for Improvement

- **Cooperative learning (Partner quizzes, pairs check, sage and scribe, etc.)**
- **More independent practice within class time**
- **Exit tickets**

Department of Humanities
Summary Assessment Report
SPAN101-Beginning Spanish I
Prepared by Angelo Archuleta, Adjunct Faculty

Purpose

The purpose of this report is to assess student learning and proficiency in the Spanish 101 course based on student performance and achievement throughout the Summer 2014 semester. This report will examine the learning outcomes proposed at the beginning of the course and will assess how each student performed based on each of those learning outcomes. This will allow the instructor to gauge instructional strategies and will also allow the instructor to examine strengths and/or weakness and make appropriate modifications to obtain the maximum level of student proficiency possible.

Background

The course title is Beginning Spanish 101. The course description is as follows: The course is designed to include the essentials of first year communicative functions, grammar skills, and cultural overview of different Spanish speaking countries. NM Common Course Number: SPAN 1113.

Learning Outcomes

By the end of the course:

1. The students will have a better understanding of the grammar and usage of Spanish Language
2. The students will increase their vocabulary and be able to use them in sentences.
3. The students will better understand spoken and written Spanish.
4. The students will increase their reading skills.
5. The students will be able to express themselves better in writing.
6. The students will appreciate Spanish culture and heritage.
7. The students will use appropriate pronunciation, structure, and vocabulary to communicate orally with speakers of Spanish, answering questions, or making simple descriptions.
8. The students will read and understand authentic documents in Spanish for cultural information.

<u>Rubric Scoring</u>
5=Mastered 4=Exceeded 3=Met 2=Slightly Met 6=Did Not Meet

Summary of Results

The following table shows the outcomes for the students in the S1panish 101 class:

Student	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	Avg.
1	5	5	5	5	5	5	5	4	4.875
2	4	5	5	5	4	5	4	5	4.625
3	5	4	5	5	4	5	4	4	4.5
4	4	5	5	5	4	5	4	5	4.625
5	4	5	4	5	4	5	4	5	4.5
6	5	5	5	5	5	5	4	4	4.75
7	5	5	5	5	5	5	4	4	4.75
8	5	5	5	5	5	5	4	4	4.75
9	5	4	3	4	4	5	4	4	3.75
10	5	5	4	5	4	5	4	5	4.625
11	5	5	4	5	4	5	4	4	4.5
12	4	5	4	4	5	5	4	4	4.375
13	DROP								

Assessment Methods

1. Attendance (10%)
2. Classroom Activities, Daily Participation, and Notebook (20%)
3. Quizzes (Pre-/Post Tests, Content/Vocabulary/Grammar) (20%)
4. Mid-Term Exam (20%)
5. Final Exam (30%)

Summary/Conclusions/Reflections

The majority of the students in the Spanish 101 course were well prepared, punctual, attended regularly and participated in class daily, however some students struggled with punctuality and attendance. There were also some issues with power outages for distance-learning students at the Springer site. The fluency level of the students in class varied from fluent to medium-low proficiency. Students engaged in a variety of activities that focused on the objectives of the course. Oral reading, expository and informational writing, speaking, listening, note taking and role play were all components of the class activities. The students in the course performed well on most of the outcomes. Outcome 3 was a challenge for one student, while the others were achieved at varying levels of success. Due to time constraints inherent in the Summer semester, some of the planned content and activities were only briefly introduced, but the daily class meetings helped students learn content more critically. More speaking opportunities to practice with native speakers would benefit all the students by allowing them additional practice and feedback for their performance. Instructor proposes to include more speaking opportunities in authentic situations to allow students more opportunities to learn from them.

Department of Humanities
Summary Assessment Report
HIST. 101, Section 01 – Western Civilization to 1500

Prepared by Daniel J. Twitchell, Adjunct Instructor

PURPOSE:

This report will evaluate the efficacy of the instructional strategies employed in History 101, section 01, Western Civilization to 1500. It will examine History 101, sec.01 and assess whether the students satisfied the state competencies. The purpose of this evaluation is to foster student learning. The data could be useful in improving learning outcomes.

BACKGROUND:

The class is designed as a survey of the social, cultural, political, technological, and economic development of Western Civilization. This course is an introduction to the history of Western Civilization from its inception in the Fertile Crescent through the year 1500. Over the course of the semester, students explore the historical progression of Western Civilization and are introduced to historiography.

HUMANITIES COURSE-New Mexico Core Competencies:

C1. Analyze and critically interpret significant primary texts and/or works of art (this includes fine art, literature, music, theatre and film).

C2. Compare art forms, modes of thought and expression, and processes across a range of historical periods and/or structure (such as political, geographic, economic, social, cultural, religious and intellectual).

C3. Recognize and articulate the diversity of human experience across a range of historical periods and/or cultural perspectives.

C4. Draw on historical and/or cultural perspectives to evaluate any or all of the following: contemporary modes of expression.

LEARNING OBJECTIVES/OUTCOMES:

Upon completion of the course, the student will:

- Have an understanding of the history of the Western world from the birth of civilization through the Medieval Period and separation of Catholic Church.
- Develop an understanding of the origins of the major social, cultural, political, technological, and economic developments of Western civilization.
- Gain a better perspective of the present by examining significant events in human history with a focus on the complex and dynamic relationships and interactions among cultures.

ASSESSMENT METHODS AND TOOLS:

- 4 Quizzes over daily readings
- 4 Tests covering daily lectures and readings
- A variety of extra credit essays and reports

SUMMARY OF RESULTS:

Table 1 displays the results of student achievement based upon the learning objectives. Fifty percent (50%) of the student's scores ranged from fair to excellent, while thirty-seven percent (37%) scored in the poor range or failed, and thirteen percent (13%) withdrew. The class average of 2.14% indicates there is room for improvement.

Table 1

Student	C1	C2	C3	C4	Average	Grade
1.	1	1	1	1	1.00	W
2.	1	1	1	1	1.00	W
3.	5	4	5	4	4.50	A
4.	5	5	5	5	5.00	A
5.	2	2	1	1	1.50	D
6.	3	3	3	3	3.00	B
7.	3	4	3	2	3.00	B
8.	3	2	2	2	2.25	C
9.	2	2	2	2	2.00	C
10.	1	1	1	1	1.00	F
11.	1	1	1	1	1.00	F
12.	1	1	1	1	1.00	F
13.	1	1	1	1	1.00	F
14.	4	3	3	4	3.50	B
15.	1	1	1	1	1.00	F
16.	2	3	3	2	2.50	C

Total Average

2.14

RUBRIC RATING:

5-EXCELLENT

4-GOOD

3-AVERAGE/FAIR

2-UNSATISFACTORY

1- POOR

0-NEVER ATTENDED

IMPROVEMENTS:

- Include more props (students seemed to respond to the bust of Augustus)
- Add more pictures to provide a more illustrative presentation
- Assign more books/reading
- Incorporate more of the literature of each era (*Epic of Gilgamesh, Beowulf, The Canterbury Tales*)
- Utilize technological teaching innovations (Power Point, Smartboard)

Department of Humanities
Summary Assessment Report
History 220- New Mexico History
Prepared by Mrs. Karen Sickler, Adjunct Instructor

PURPOSE:

This report will assess the effectiveness of the delivery of instructional strategies in New Mexico History on student achievement. It will evaluate N.M.History and determine how well students met expected expectations. The goal of this assessment is to improve student learning.

BACKGROUND:

This course will trace the history of the southwestern part of the United States, specifically New Mexico beginning with the Indian migrations, through the major European explorations to the present. Throughout the course, the cultures of the Native Americans, Spanish, Mestizo, and the Anglo cultural heritage will be emphasized, with understanding cross-cultural and culturally different people.

LEARNING OBJECTIVES/OUTCOMES:

- Students will familiarize themselves with the history of New Mexico from its early Native American inhabitants through exploration and conquest, to its Spanish Colonial and Mexican Republic periods, to its United States Territorial period and its establishment as a state, gain a better understanding of some of the states founding documents and the historical context in which they were written.
- Exercise their critical and analytical skills by evaluating various primary and secondary sources while developing oral and written communication skills.
- Consider their own unique histories and stimulate their interests in the subject while expanding their perspective of the present by examining significant events in New Mexico history with a focus on the complex and dynamic relationships and interactions among various cultures.
- Develop an understanding of the origins and major social, cultural, political and economic developments of New Mexico

STATE COMPETENCIES AREA IV: Social/Behavioral

1. Identify, describe and explain human behaviors, and how they are influenced by social structures, institutions, and processes within the contexts of complex and diverse communities.
2. Articulate how beliefs, assumptions and values are influenced by factors such as politics, geography, economics, culture, biology, history, and social institutions.
3. Describe ongoing reciprocal interactions among self, society and the environment.
4. Apply the knowledge base of the social and behavioral sciences to identify, describe, explain, and critically evaluate relevant issues, ethical dilemmas, and arguments

ASSESSMENT METHODS AND TOOLS

Participation/In-class assignments	30%
Quizzes/tests	30%
Essays	20%
Final	20%

RESULTS:

The class started with 9 students, we ended with 8 students.

1-F

1-D

1-B

6-A's

Student	Outcome #1	Outcome #2	Outcome #3	Outcome #4	AVERAGE
1	4	4	4	4	4
2	5	5	5	5	5
3	2	2	2	2	2
4	5	5	5	5	5
5	1	1	1	1	1
6	5	5	5	5	5
7	5	5	5	5	5
8	5	5	5	5	5
9	5	5	5	5	5

IMPROVEMENTS:

If I teach this class again, I would like to use more technology in the class and add more speakers to enhance the class.

Department of Allied Health
AH 113E- Medical Terminology
 Prepared by: Susan Olson-Smith RN, MSN eD

PURPOSE:

The purpose of this report is to assess the effectiveness of student learning in on-line Medical Terminology courses. The focus of the report will be to review the outcomes of the assessment (weekly quizzes and the Final Examination) and assignments conducted during the delivery of the course. To utilize this information to consider course modifications of the content, emphasis, assessment, and teaching methodologies.

BACKGROUND:

Medical Terminology has been an integral part of the preparation for students seeking foundational knowledge in the Nursing Profession/Allied Health. Students considering opportunities as medical office assistant, nursing assistant, dental assistant, Licensed Practical Nurse (LPN) and Registered Nursing (RN) find that Medical Terminology is a very important part of the Health Profession.

The on-line methodology is a new opportunity as it is able to reach more students including local high school students. Several students who are in the US Uniformed Services of the United States have taken on-line Luna classes.

Medical Terminology:

This course offers a systematic study of medical terms for health professionals who need to acquire a medical vocabulary for their professional training. The students becomes proficient with prefixes, suffixes and key works that formulate medical terms and the pronunciation of medical terms. A basic review of the major anatomical systems included and provides a major frame of reference for the terms studied.

The information learned follows a progression of review of the major anatomical systems while building on the four types of word parts used to create medical terms which are:

1. Word roots- which contains the basic meaning of the word
2. Combining forms- which is a word root with a combining vowel added at the end. For example: The combining form meaning stomach is gastro/o. This form is used when a suffix begging with a constant is added. When a combining for appears alone, it is shown with a black slash (/) between the word root and the combining vowel.
3. Prefix- usually, but not always indicates location, time, number or status. A prefix always comes at the beginning of a word.

PRE + NAT + AL = PRENATAL (time and event before birth)
 (before) (Birth) (pertaining to)

4. Suffix- usually but not always, indicates the procedure, condition, disorder or disease. A suffix always comes at the end of the word. You will know a word part is a suffix when it is shown with a hyphen (-) preceding it. For example:

TONSIL + IT IS = TONSILLITIS
 (tonsil, tonsils) (Inflammation) (Inflammation of the tonsils)

LEARNING OUTCOMES:

Upon successful completion of this course, the student should:

1. Identify and utilize word parts to systemically build up knowledge of medical language.
2. Learn the “sounds like” pronunciation system identify the guidelines of medical dictionary use.
3. Identify and utilize guidelines the plural forms of words.
4. Identify general medical terminology related to the structure of the human body.
5. Identify and define medical terms related to the major body systems:
 - a. Skeletal system
 - b. Muscular system
 - c. Cardiovascular system
 - d. Lymphatic and Immune system
 - e. Respiratory system
 - f. Digestive system
 - g. Urinary system
 - h. Nervous system
 - i. Special senses
 - j. Integumentary system
 - k. Endocrine system
 - l. Reproductive

ASSESSMENT METHODS:

1. 100 point, 100 questions Assignment is completed each week. These assignments are after each chapter and are open book. These are 30% of the student’s grade.
2. 100 point, 25 question Quiz/Assessment each week. This Quizzes/Assessment are not open book and are timed. These are 40% of the student’s grades.
3. 100 point, 100 questions Final is given during the last week of the semester. This is also time and not open book. This is 30% of the student’s grades.

All Assessments/Quiz questions are given in a pattern similar to state proficiency examination. Course content is consistent with information required by the New Mexico State Board of Nursing to prepare students for satisfactory completion of the Licensed Practical Nurse (LPN) and Registered Nurse (RN) NCLEX (State Board Examinations).

Department of Trades
Course Evaluation
AUTO 124 HEATING AND AIR CONDITIONING

Prepared by: Eugene Sandoval, Faculty

COURSE DESCRIPTION: THIS COURSE COVERS PRINCIPLES OF HEATING AND AIR CONDITIONING SYSTEMS WITH AN EMPHASIS ON DIAGNOSIS. IDENTIFICATION IS COVERED ALONG WITH SERVICE AND REPAIR OF BOTH MANUAL AND AUTOMATIC SYSTEMS. CLIMATE CONTROL SYSTEMS WITH COMPUTER CONTROLS ARE ALSO COVERED. CO/PRE REQUISITE: AUTO 100 AUTOMOTIVE FUNDAMENTALS.

COMPETENCIES: PART IDENTIFICATION, SYSTEM OPERATION, SYSTEM DIAGNOSIS, SYSTEM REPAIR

NUMBER OF REGISTERED STUDENTS: 8

NUMBER OF STUDENTS COMPLETING CLASS: 7

NUMBER OF WITHDRAWING STUDENTS: 1

METHODS OF ASSESSING CLASS: PRE/POST TEST . PRETEST RESULTS AVG: 61% POST TEST RESULTS AVG: 82%, JOBSHEETS WERE ALSO USED OUT OF THE SHOP MANUAL STANDARDS ARE GIVEN ACCORDING TO NATEF AND ASE .

FINAL TEST RESULTS AND FINAL GRADES ARE AS FOLLOWS: A- 4, B- 2, C- 1, WITHDRAW- 1

IMPROVEMENTS FOR CLASS: NEW BOOK WILL BE UTILIZED WHICH WILL ALSO USE A COMPUTER BASED LEARNING SYSTEM FOR MORE INTERACTION WITH THE STUDENTS FOR USING CRITICAL THINKING METHODS.

