Improving Student Learning

Summer 2013 Report

Forward

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 2013 report on Improving Student Learning is a testimony to LCC's commitment to assessment.

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

July 29, 2013

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 2013
Student Learning Outcomes Assessment Participants

- Andrew Feldman – SMET
- Gilbert Martinez – Vocational Education (Collision Repair)
- Gloria Pacheco – Dental
- Erin A Lopez – Vocational Education
- Rosalie Ortega – Vocational Education
- Roberta Montano – SMET/Allied Health
- Shirley Marlow – Humanities
- Jeff Ortzow – Physical Education
- Carlos T Martinez -- SMET
- Vidal Martinez -- Administration

Luna Community College: Improving Student Learning –Summer 2013 Report

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Course Assessment Reports

Department of Humanities
Summary Assessment Report
PE112-Physical Fitness
Mora Site-Jeanie Abeyta, Adjunct Instructor

PURPOSE

The purpose of this report is to evaluate the effectiveness of the PE112 physical fitness class and investigate methods to improve fitness techniques.

BACKGROUND

Most of the students who registered for this course did it for personal fitness/exercise. The focus of this report is on the outcomes of the course and a major contributor and important factor of these outcomes is the fact that the students were taking the course for recreational purposes and not a grade. This class was self-paced. Once they learned certain exercises, they were responsible for showing up to class and demonstrating proper technique. I guided them through exercises and weight lifting techniques as needed. Attendance and participation were required for a grade for those who did not audit the course.

COURSE DESCRIPTION

This is a self-paced physical activity course. For this class, the student must have a minimum of 20 sign-in DATES encompassing 32 hours or more during a semester. The students work out at their own convenience and use the latest in weight training machines and free weights.

STUDENT EXPECTATIONS

- Students will sign in 16 times during the summer sessions to maintain a letter grade of "S".
- Students will attend class 2 times a week during the summer session.
- Students will become familiar with weight and cardio equipment.
- Students will wear proper attire (clean tennis shoes and comfortable clothing).
- Students will wipe down equipment after each use.

COURSE LEARNING OUTCOMES (Competencies):

Physical Fitness is a course where students will participate in cardio-respiratory exercise and weight training at their own pace. They will learn Cardio and weight training techniques and how to use all fitness equipment that is available. Students will work on improving their fitness levels and toning up their muscles.

COURSE OBJECTIVES

- Become familiar with weight lifting technique.
- Become familiar with all fitness equipment available.
- Achieve and maintain a health enhancing level of physical fitness.
- Understand that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction.

SUMMARY CONCLUSIONS

Since there are no other facilities where the community can exercise and tone their bodies, they register for this course. Most are veteran students who have been in this course for the nine (9) years since it has been offered to the community of Mora, and they are here primarily for recreational purposes. For those students who are "serious" with their physical fitness needs, I do work with them on plans, i.e. dietary, exercise. The attached workout log is also given to each student as a on-going "plan" so they may see the results of their progress.

Lessons Learned and how the data is used to improve student learning:

- The instructor will revise learning outcomes for PE112 – Physical Fitness
- The instructor will develop assessment tools that directly measure the learning outcomes
- The instructor will collect data and use the data to improve student learning

Workout Log

Name: _____

EXERCISE	Set #1	Set #2	Set #3	Set #4	Set #5
Chest press /flyes					
Lat pulldowns					
Shoulder press (rah rahs)					
Tricep pulldowns					
Bicep curls					
Leg Press					
Squats					
Leg Extensions					
Calve raises					
Lunges					

DAY:

_____

CARDIO TODAY?

YES NO

Department of Business Studies
Summary Assessment Report
CSA150: COMPUTER FUNDAMENTALS
Ann Marie Rigdon, Adjunct Instructor

PURPOSE

This report is to assess student learning in CSA150-40 Computer Fundamentals taught at the Raton Campus Summer 2013 by an adjunct instructor. Focus is on student learning outcomes (SLO's) to assist in the decision making process of course content, teaching methods, emphasis and other outcomes of the course.

BACKGROUND

As described in the Luna Catalog **CSA150 Computer Fundamentals 3 ;(2, 2).** This course provides an overview of the basic components and functions of the computer with an emphasis on current business software applications. The course will cover computer operating principles, fi le management, the Internet, Microsoft Office Suite using Word processing, Excel spreadsheets, Access database, and PowerPoint Presentations. *NM Common Course Number: BCIS1113.*

LEARNING OUTCOMES

Upon successful completion of this course the student will be able to:

1. Demonstrate proficiency on Office 2010 and Windows 7 Concepts
2. Demonstrate proficiency in Microsoft Word 2010
3. Demonstrate proficiency in Microsoft Excel 2010
4. Demonstrate proficiency in Microsoft PowerPoint 2010
5. Demonstrate proficiency in Microsoft Access 2010
6. Demonstrate proficiency in Microsoft Outlook 2010

ASSESSMENT METHODS

The textbook was designed so there were 3 lessons in each section in the textbook associated with each program taught. After learning each program, a Capstone Lab test was given in which each student had two hours to complete the exam. The Capstone Project included all of the skills learned in each of the 3 lessons in the textbook. The grading rubrics were designed by the instructor to ensure all key skills were learned. Below is the rubric for Microsoft Word.

Example of Grading Rubric Used for Microsoft Word

Description	**Pts**	**Your Score**
The headline "Found Dog" is in Arial Rounded MT Bold, size 72	**5**	
The document is enhanced with the Aspect color scheme	**5**	
The flyer contains two digital pictures with a 3-D rotation effect applied to them	**5**	
A bulleted list is included, with the dog's name italicized and in a different color from the rest of the text.	**5**	
The text has appropriate font sizes, colors, and spacing for each section	**5**	
The signature is in a different color from the rest of the flyer	**5**	
The flyer, as a whole, is visually appealing	**5**	
The flyer fits on a single page	**5**	
The flyer does not contain spelling or grammar errors	**5**	
The flyer contains a graphical, color-coordinated border	**5**	
TOTAL POSSIBLE POINTS:	**50**	

SUMMARY OF RESULTS

These results are those of the Capstone Project given at the completion of each program learned. The following table displays the class outcomes for the state learning competencies. (This is a total for the class including audits)

Capstone Project Results

	Mastered	Exceeded	Met	Somewhat Met	Did Not Meet
Competency 1- Office 2010 and Windows 7	2	3	2	2	0
Competency 2- Word	2	3	2	2	0
Competency 3- PowerPoint	4	2	2	1	0
Competency 4- Excel	2	3	2	1	1
Competency 5- Access	2	2	1	3	2
Competency 6- Outlook	2	3	0	3	1

The following table shows the final grades for the students taking the class for a grade (excludes audit students).

Final Percentages and Letter Grade

Student 1	**99%**	**A**
Student 2	**93%**	**A**
Student 3	**98%**	**A**
Student 4	**92%**	**A**
Student 5	**71%**	**C**

The following table displays the learning outcomes per student for the stated competencies

	Mastered	Exceeded	Met	Somewhat Met	Did Not Meet
Students taking class for Grade/Credit					
Student 1	X				
Student 2		X			
Student 3	X				
Student 4		X			
Student 5			X		
Students Auditing Class					
Student 5		X			
Student 6			X		
Student 7			X		
Student 8					X

SUMMARY CONCLUSIONS

The students taking the class for a grade scored in the 70% or higher range for the course with 4 of the students completing with a 90% or higher. One of the contributing factors to a high success rate was the students' willingness to learn to supplement their career choice and to be able to use a computer efficiently in classes they will be taking in the near future. The results also showed that Microsoft Excel and Access are the most difficult for the students to master. Although they get the general concepts, the terminology and formulas were difficult to master.

The students that were auditing were all older students that were retired and/or volunteering their time in another position. One of the auditors has recently lost his job and is currently looking for a job, but his computer skills were lacking. Unfortunately, one student that was auditing that could have used more skills, quit coming to class after July 4. He felt he was too far behind to keep coming to class. Auditing students were very hard on themselves and three of the four had high enough points to earn a letter grade.

EXAMPLES OF THE USE OF ASSESSMENT DATA FOR COURSE DELIVERY IMPROVEMENTS

The Capstone Projects enabled the instructor to see what programs were giving the students problems and to allow more lecture time for those programs.

- Lesson 1 in Excel was accomplished with few errors, but the other lessons in Excel that included formulas and what-if analysis were more difficult for the students since most of them had been out of school for a while. This is one section of the textbook in which more time needs to be allocated.
- Access was the most time consuming with only 1 student familiar with the program. More time needs to be spent explain the terminology and practical uses for this program.
- Utilize the textbooks website more! There were several learning tools that helped with the terminology including "Wheel of Terms" and "Computer Genius." These are games that the students enjoy while allowing them to learn the terms and have fun playing the games.
- Students that are auditing the class need to be encouraged to take the class for credit and a grade. They are usually older and more self-disciplined and being able to achieve a passing letter grade would be an accomplishment and help their self- esteem. It would also allow the college more FTE's.
- The instructor will revise learing outcomes that reflect state-wide competencies

DEPARTMENT OF VOCATIONAL EDUCATION
AUTO154: Suspension Steering and Alignment
Paul Vance, Instructor

PURPOSE

The purpose of this report is to assess the execution of the training of the AUTO 154: Suspension, Steering, and Alignment course based on student accomplishments of the course competencies and the learning outcomes. The focus of the report is to show how the outcomes of assessments conducted during delivery of the course are and can be used to inform decisions on modifications to the course subject matter, emphasis, assessment, and teaching methods.

COURSE DESCRIPTION

This course will provide a foundation to the automotive chassis system. The course includes theory, inspection and diagnostic practices with an emphasis on safety, along with repair procedures and specific equipment operation. Alignment procedures will also be covered.

BACKROUND

This is a required course for a certificate in Automotive Technologies.

LEARNING OUTCOMES:

·Competency 1 - Demonstrate the ability to inspect and diagnose vehicle suspension, steering, and alignment issues.

·Competency 2 - Demonstrate the ability to repair damaged, worn, or malfunctioning components related to the steering, suspension, and alignment systems of a vehicle.

·Competency 3 - Demonstrate the ability to perform a complete alignment using the shops Hunter computerized alignment machine.

ASSESSMENT METHODS:

· Chapter tests
· NATEF task sheets
· Instructor observations and evaluations
· Student hands on projects
· Midterm and Final exams

SUMMARY OF RESULTS

Student	Pre-	Competency	Competency	Competency	Post-	Final
1	70	Excellent	Excellent	Excellent	90	95
2	65	Excellent	Excellent	Excellent	92	98
3	69	Good	Excellent	Excellent	88	85
4	60	Good	Good	Excellent	80	85
5	56	Poor	Poor	Average	66	68
6	62	Average	Average	Average	70	72
7	59	Failing	Failing	Failing	59	65

8	62	Average	Average	Good	0	0
9	60	Average	Average	Average	70	72

SUMMARY CONCLUSIONS:

Students who showed up for class and participated up front in class projects were more likely to learn more and receive a good grade.

Students who brought in their own vehicle to work on were more likely to focus on their projects.

Assessment Report
FS281: Firefighter Internship
Dr. Vidal Martinez, Fire Science Faculty

PURPOSE

Using the LCC Assessment Plan, the purpose of this report is to improve student learning in FS281: Firefighter Internship.

LCC 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:

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

COURSE DESCRIPTION

This course is an application of knowledge, skills and abilities in a fire service department, as a firefighter intern and integrated member of a fire affiliated agency. *Pre-requisite: Instructor Approval*

BACKGROUND

FS281: Firefighter Internship is an elective course in the fire science program. The learning outcomes are designed between the student, the organization, and the instructor of record. This is the first time that FS281 has been offered based on the 2012-2015 LCC Catalog, and data from this assessment report will be used to improve future internships within the fire science program.

FS281 is an internship agreement between the student and the Gallinas Volunteer Fire Department, which is located in San Miguel County, New Mexico. Only one (1) student participated in the internship, and the student is in his last semester before graduation. He is also an active member of the Gallinas Volunteer Fire Department.

LEARNING OUTCOMES

Learning outcomes are designed between the student, the organization and the instructor of record. The following are the learning outcomes:

1. Describe and demonstrate the use of PPE and SCBA.
2. Describe the culture and traditions of the Gallinas Volunteer Fire Department
3. Describe the organizational structure of the fire department and the role and function of each position.
4. Describe your experience at emergency calls.
5. Demonstrate the operation of the fire apparatus pump.

6. Describe the tools and equipment used for rescue operations. Demonstrate the use of extrication equipment.
7. Demonstrate the use of hoses, nozzles, hydrants, and fire streams.
8. Describe the equipment that is used on a fire department apparatus (fire truck).
9. Explain organizational behavior among firefighter personnel to include personalities (firefighter behavior).
10. Overall, summarize what it means to be a Gallinas Volunteer Firefighter.

ASSESSMENT METHODS AND TOOLS

The student is required to provide evidence that he has met the learning outcomes for the internship.

SUMMARY OF DATA

Learning Outcomes	Evidence
Outcome 1	Described & demonstrated through fire department bunker drills
Outcome 2	Written report focused on generational labels
Outcome 3	Written report on organizational structure of the Fire Dept.
Outcome 4	Emergency response reports focused on EMS vs. Fire calls
Outcome 5	No evidence of demonstration (five apparatus pump)
Outcome 6	Written summary (described) but no evidence of demonstration
Outcome 7	Training reports were provided
Outcome 8	Student described through written summary
Outcome 9	Student provided written summary
Outcome 10	Student provided written summary

LESSONS LEARNED & HOW THE DATA IS USED TO IMPROVE STUDENT LEARNING

- Learning outcomes are the backbone of the internship, and the outcomes must be realistic, reasonable and attainable. The process for developing learning outcomes for the internship must be the focus point, to include timeframes and pre/post meetings with students, the organization and instructor.

- The student must provide the evidence to the instructor once the learning outcomes are complete. It must be on-going and throughout the internship timeframe. This will allow the instructor to periodically evaluate student performance, provide feedback and guidance.

- The instructor and student must have a clear understanding of learning outcomes. The student must understand words, phrases and terms within the learning outcomes. For example, students must understand the difference between "describe" and "demonstrate" and the meaning of: culture and traditions, organizational structures, organizational behavior, and personalities.

Department of Cosmetology/Barbering
Summary Assessment Report
CSMT 126: Haircutting

Rosalie Ortega, Instructor

PURPOSE

The purpose of this report is to assess student learning in CSMT 126: Haircutting course based on student performance throughout the semester. The focus of the report is on how the outcomes of the assessments conducted during the delivery of the course are, and can be used to inform decisions on modifications to course content, emphasis, assessment, and teaching methodologies.

BACKGROUND

The Barber class has been at Luna Community College/GEO since January-5- 2009, and this is the 14th semester that the program has been taught. The CSMT 126: Haircutting course prepares the student for a career in barbering/haircutting by teaching the skills, trades, and methods of career development in barbering-related fields. The primary purpose of this program is to train the student in the basic manipulative skills, safety judgments, proper work habits, and desirable attitudes necessary to obtain licensure and for competency in entry level in barbering or a related career field.

LEARNING OUTCOMES

Upon successful completion of the course, the student will be able to:

1. Identify various career opportunities within the field of barbering
2. Have obtained employability skills
3. Ethics, job seeking and retention skills, customer service, teamwork, problem solving, and quality principles
4. Understand professional standards, and State Board Standards
5. Know the completion, licensure, and placement rules of the school
6. Understand the importance of consumer safety and general safety procedures
7. Understand OSHA requirements

ASSESSMENT METHODS

1. Testing the workbook
2. Daily practical sheets
3. Individual haircut grading
4. In-house Mini Board Exams
5. State Board Exams

	Mastered	Exceeded	Met	Somewhat Met	Did Not Meet
Competency 1	4	3	5	1	0
Competency 2	6	4	3	0	0
Competency 3	5	8	0	0	0
Competency 4	6	5	2	0	0
Competency 5	7	2	4	0	0

Competency 6	5	2	6	0	0
Competency 7	4	3	6	0	0
Competency 8	5	2	6	0	0

	Mastered	Exceeded	Met	Somewhat Met	Did Not Meet
Student 1	8	0	0	0	0
Student 2	3	4	1	0	0
Student 3	4	2	2	0	0
Student 4	2	5	1	0	0
Student 5	0	2	5	1	0
Student 6	0	2	6	0	0
Student 7	1	3	4	0	0
Student 8	8	0	0	0	0
Student 9	0	4	4	0	0
Student 10	8	0	0	0	0
Student 11	8	0	0	0	0
Student 12	0	3	5	0	0
Student 13	0	4	4	0	0

EXAMPLES OF THE USE OF ASSESSMENT DATA FOR COURSE DELIVERY IMPROVEMENTS

The following describes the proposed changes to the course teachings based on the assessment:

- Require quizzes that test comprehension of topics and techniques discussed
- Incorporate an incentive into the program in which the students show their best work at an end of the year department exhibition and awards may be received
- Overall, the success heavily weighs on the commitment and behavior of the student. As those who attended class less often and spent less time on projects generally scored lower overall
- Provide student computers to learn fundamentals and be able to test learning skills in search of the latest haircuts and how to style them
- The instructor will revise learning outcomes for this course

DEPARTMENT OF SCIENCE, MATH, and ENGINEERING TECHNOLOGY
SUMMARY ASSESSMENT REPORT
PHYS111: Introduction to Physics
Carlos T. Martinez, Instructor

PURPOSE

The purpose of this report is to assess if students in PHYS111- Introduction to Physics are meeting state HED mandated science competencies for a General Education Core transfer course. Furthermore, the end goal of assessment is to improve student learning.

BACKGROUND

The course is described in the LCC 2012-2015 Catalog:

Introduction to Physics a Liberal Studies course for the non-science major seeking a connection between science and the world we live in. The student will gain an understanding of concepts in physics such as Newton's Law's of motion, gravity, energy, thermodynamics, waves, electricity, magnetism, optics and relativity. The emphasis is on learning to think logically in order to analyze and solve problems, to develop and expand your intuition for the physical world, and to learn how things work. The laboratories will emphasize hands-on investigation of topics covered in lecture.

During the Summer 2013 semester the course started with 8 registered students; at the end of the semester going into the final exam 7 students remained; only 6 students took the final exam.

LEARNING OUTCOMES

NM LAB SCIENCE COMPETENCIES:

1. Students will describe the process of scientific inquiry.
Students should:
a. Understand that scientists rely on evidence obtained from observations rather than authority, tradition, doctrine, or intuition.
b. Students should value science as a way to develop reliable knowledge about the world.

2. Students will solve problems scientifically.
Students should:
a. Be able to construct and test hypotheses using modern lab equipment (such as microscopes, scales, computer technology) and appropriate quantitative methods.
b. Be able to evaluate isolated observations about the physical universe and relate them to hierarchically organized explanatory frameworks (theories).

3. Students will communicate scientific information.
Students should:
Communicate effectively about science (e.g., write lab reports in standard format and explain basic scientific concepts, procedures, and results using written, oral, and graphic presentation techniques.)

4. Students will apply quantitative analysis to scientific problems.
Students should:
a. Select and perform appropriate quantitative analyses of scientific observations.

b. Show familiarity with the metric system, use a calculator to perform appropriate mathematical operations, and present results in tables and graphs.

5. Students will apply scientific thinking to real world problems.
Students should:
a. Critically evaluate scientific reports or accounts presented in the popular media.
b. Understand the basic scientific facts related to important contemporary issues (e.g., global warming, stem cell research, cosmology), and ask informed questions about those issues.

COURSE SPECIFIC LEARNING OBJECTIVES:

Upon completion of PHYS111- Introduction to Physics students will:

1. Demonstrate understanding of the nature of science and how science differs from other ways of observing and understanding the world. (C1, C3, and C5)
2. Demonstrate understanding of the Scientific Method and how it promotes critical thinking in science. (C1, C2, and C5)
3. Demonstrate knowledge of basic concepts and language of Physics. (C1 & C3)
4. Discuss how the basic principles of physics apply to real-life situations using language understandable by their fellow students. (C1, C3 and C5)
5. Demonstrate knowledge of basic laws of Physics that pertain to the study of motion, forces and energy, electricity, magnetism and light, waves and sound. (C1 & C2)
6. Develop the ability to work together in collaborative groups to perform experiments, gather data and reach conclusions. (C2 & C5)
7. Use elementary math to solve problems in physics. (C3 & C4)

ASSESSMENT METHODS
The methods used to assess student progress toward and achievement of the learning outcome included:

- Quizzes, two chapter exams and a final exam
- Laboratory assignments
- Chapter homework assignments
- Attitude, attendance, & participation

SUMMARY OF RESULTS
The following tables display the results of student achievement of the learning outcomes. The results are shown for each section.

COMPETENCY RATING FORM – Phys 111 Introduction to Physics Summer 2013 (NM Lab Science)

Student ID#		C1	C2	C3	C4	C5	Average
1.	A	1	1	1	1	1	1
2.	B	4	5	3	4	5	4.2
3.	C	4	3	4	4	5	4
4.	D	4	4	3	3	3	3.2
5.	E	3	4	4	3	4	3.6
6.	F	2	3	3	3	4	3
7.	G	2	3	3	2	2	2.4

	Class Average	2.9	3.3	3.0	2.9	3.4	

Pre-Test Post Test Comparison			
	Student ID #	**PRE-TEST % SCORE**	**FINAL EXAM**
1.	A	49	NA
2.	B	29	89
3.	C	42	82
4.	D	63	70
5.	E	46	79
6.	F	58	68
7.	G	33	64

FINAL GRADE REPORT

Student #	Final Exam	Grade	Final Grade
A	NA	17	F
B	89	89	A
C	82	89	A
D	70	82	B
E	79	84	B
F	68	74	C
G	64	67	D

Total 8 students registered for class
A's = 25%
B's = 25%
C's = 12.5%
D's = 12.5%
F's = 12.5%
W's = 12.5%
Percent Successful – Grade "C" or Higher = 62.5%

SUMMARY CONCULSIONS:

Students demonstrated the following areas of weakness that affect their performance in Introduction to Physics:

1) Students generally do not take the time (summer semester time is limited) to reflect on material to see how what role it plays in the world around them.
2) Students often compartmentalize what they are learning failing to see connections, not only in the same course but connections to other courses/subjects.
3) Students generally have a difficult time articulating what they have learned.
4) Students generally have poor study skills.
5) Students are not prepared to do even basic mathematics related to science.
6) Poor attendance affects comprehension and grades.

IMPROVING STUDENT LEARNING OUTCOMES

PHYS111- Introduction to Physics is delivered traditional lecture with class discussions, in class demos and occasional videos from the web. Students are responsible for their learning outside of the classroom and to this end, homework assignments are used to get the students to preview the material. In addition, students get hands-on experience in the lab portion of the course.

The following describe the proposed modifications to course delivery and student behavior patterns:

- Provide a review of mathematics that is used in the course. Emphasize that solutions aren't always easy to compute or find.
- Give more quizzes that encourage the students to read the textbook.
- Add an oral student presentation to focus on communicating scientific information that is accompanied by a 1-2 page paper.
- Increase attendance rates? Adopt strict attendance policy.
- Add (or verify) STEM applied problems in math courses.
- Relating subjects, courses, and concepts.
- Capstone classes?
- More in class demos so students see physics in action.
- Additional lab equipment needed.

DEPARTMENT OF DENTAL ASSISTING
SUMMARY ASSESSMENT REPORT
DENT 270: Clinical Practicum II
Dawna Ortega-Gallegos

PURPOSE

The purpose of this report is to assess the effectiveness of the delivery of the Clinical Practicum course to Dental Assisting students based on student achievement of the course competencies and learning outcomes. The focus of the report is on how the outcomes of the assessments conducted during the delivery of the course are and can be used to inform decisions on modifications to course content, emphasis, assessment and teaching methodologies.

BACKGROUND

The Dental Assisting Program has been continuous at Luna Community College (LCC), for the past 11 years under the instruction of Gloria Pacheco and myself for the past 5 years. I have instructed this course beginning the summer of 2012.

This capstone course enhances the dental office experience. The student serves a non-paid practical clinical experience in the dental offices and specialty dental offices of qualified dentists. As a routine procedure in the Dental Office, the student will practice chair side assisting, dental charting, periodontal charting, along with other dental assisting duties allocated by the superior while under direct and indirect supervision. Evaluation will be conducted by Instructor on a weekly basis, as well as, by Dental office administrator. The student is responsible for travel to and from clinical site. It is ***Crucial*** for student to be punctual and devoted to attendance. Travel will involve other areas out of Las Vegas. Seminars to discuss clinical rotation experiences are also scheduled in this course.

The 8 week course assessed for this report was taught by Dawna Ortega-Gallegos during the summer 2013 semester, in assigned specialty dental offices.

LEARNING OUTCOMES

The student learning outcomes for the course are as follows:

1. Describe the concept of seating the patient.
2. Demonstrate the concept of dismissing the patient.
3. Describe and demonstrate one handed instrument transfer.
4. Identify Dental Instruments of common use and understand their usage.
5. Demonstrate ability to setup tray for various procedures.
6. Describe & perform sterilization.
7. Demonstrate ability to take & process dental Radiographs.
8. Practical applied Dental office management
9. Demonstrate evening and Morning routines for Dental Assistants as directed by the dentist.
10. Describe and perform Expanded Intra Oral functions.
11. Discussion on clinical rotations through seminars, to increase familiarization with various dental specialty settings, operations and evaluation procedures. Measures to take care of any deficiencies are also discussed in these seminars.

SKILL COMPETENCY ASSESSMENTS:

1. Students will be supplied with a list of specific skills that must be practiced and completed.

2. Students will use Competencies from "Student Hand book accompany Phinney and Halstead "A Comprehensive Approach in Dental Assisting, 3rd Edition". The skill will be demonstrated in the presence of an instructor.
3. Students will be provided with the (1) Additional Skill competency sheets, where applicable. (2) Clinic card (3) Student Time Sheet for Clinical Rotations with Monthly clinical progress (4) Dental Assistant performance evaluation (5) Skill Competency tracking sheet
4. Students level of performance is expected to elevate throughout the clinical rotation period on the scale of 1-3.
5. (1) Dental Assistant performance evaluation, (2) Monthly clinical progress (3) Competencies from "Student Hand book accompany, Phinney and Halstead "A Comprehensive Approach in Dental Assisting, 3rd Edition", will be used to record students' performance in the Lab, Pre-clinical and Clinical skills.
6. Student Time Sheet for Clinical Rotations will be used to track the amount of time student work in the clinic.
7. Clinic card will be used to track the number of times a skill was performed in the lab, pre-clinic or clinic.
8. Students will be constantly observed in Dental clinic by the Dentist and all the clinical staff and by the Instructor regularly.
9. Students will be observed in the extra-mural clinical facilities regularly by the Instructor.
10. Students are REQUIRED to keep the binder (with all the sheets mentioned under "**Required Text and Materials**" on page 1 (one) of this DENT270 Course outline), with them all the time when they are doing their clinical rotations, BOTH in onsite dental clinic and extra-mural clinical facilities.
11. Students will be informed about the schedule of site visits after faculty finalizes it with the clinics.
12. Students will be evaluated on the basis of skill competencies in the workbook for the procedures they are observed in the clinics.
13. Faculty will discuss student's performance and measures to take care of deficiency, if any, with the student, in the class seminars and this will be documented in the "monthly clinical tool".
14. Faculty is required to maintain a "tracking sheet" for all the correspondence with the clinics.
15. Clinics are required to sign students "time sheets", "Clinic card" and "Skill competencies"
16. Clinics are also required to submit "dental assistant performance survey" to the faculty, at the end of each clinical rotation. These surveys will be tracked on a separate tracking sheet.
17. **Students are REQUIRED to give required # of hours to an assigned clinic during the assigned months; otherwise they will lose points per missed day, from their attendance**, based on the grading scale.

ASSESSMENT METHODS

The methods used to assess student progress toward and achievement of the learning outcome included:

HOMEWORK POLICY:
There are NO homework assignments for this course unless or otherwise indicated by the Instructor.

JOURNAL:
Student will keep a journal for each clinical day and will be submitted on the scheduled seminar day.

WRITTEN ASSIGNMENT POLICY:
There is NO written assignments for this course unless or otherwise indicated by the Instructor.

PARTICIPATION POLICY:
Students are expected to actively participate in all class & extracurricular activities including "Seminars". Students volunteering will get extra credits.

SEMINARS:

To discuss about Clinical Rotation Status and students' performance in the clinics, students' **MUST** show their clinic Card and Clinic Time sheet (filled and signed by the dentist or authorized clinic staff ONLY), to the Instructor on the assigned days during office hours (by appointment). Student who misses a Seminar will receive double point deduction (equal to two classes' absences).

EXAM/ TEST POLICY:
There are NO exams of tests for this course.
Students will be graded on basis of their Attendance, performance, completion of skill competencies and Completion of required clinical hours (200 Hours)

SUMMARY OF RESULTS
The following tables display the results of student achievement of the learning outcomes. The results are shown for each section.

15 days at 7 hours a day

	Present	Absent
June 5	4	2
June 6	6	
June 12	6	
June 13	6	
June 19	3	3
June 20	5	1
June 26	5	1
June 27	5	1
July 3	6	
July 10	6	
July 11	6	
July 17	6	
July 18	6	
July 24	6	
July 25	6	

Overall Semester Grade for 6 Students

	Pass	Fail
Student 1	X	
Student2	X	
Student 3	X	
Student 4	X	
Student 5	X	
Student 6	X	

As the tables illustrate, The first table lists all days when the students were present at clinicals. Table Two lists over all pass or fail for the semester per student.

Summary Conclusions: Fundamental Prerequisites for Effective Learning

The two factors that appear to be most related to the differences in student performance between the two sections are attendance and completion of written assignments, student behaviors that are fundamental to the learning process. In the summer 2013 Clinical Practicum II Course, the overall attendance rate was 85% whereas 15% of non-attendance was excused with Dr. excuses, as required and stated in 2012-2013 Dental Assisting Program Student Policy Handbook.

Similarly, all students completed all attendance assignments. No students failed to complete all attendance assignments; six students completed all attendance assignments.

This class was held in assigned Specialty Dental Offices in Albuquerque and Santa Fe. There were no instances of class disruption with students being called out of class or excused from class for a variety of school related activities.

The students' learning achievements indicate that the course can be effectively taught to Dental Assisting students as they will use Clinical Practicum II experiences in their future careers as Dental Assistants. Results also indicate that fundamental student learning behaviors (attendance, attention, and making an effort to complete assignments) are a necessary for achieving the course learning outcomes.

Department of Humanities
Summary Assessment Report
SOC101-02: Introduction to Sociology
Gilbert Baca, Adjunct Instructor

Goals

The SLOA report will evaluate the efficacy of the various instructional approaches utilized throughout the course of Introduction to Sociology, and its effect on overall student's success. The purpose of this assessment is to enhance student learning by improving instruction methods. This data will be used to improve learning outcomes for students, and modify teaching strategies to better support student achievement.

Overview

An overview of the fundamental concepts, theories and methods used to analyze the social experience. This course introduces students to a way of observing and interpreting the social world around them and how they relate to it. Topics include culture, socialization, education, the family, race and ethnicity, social inequality, deviant behavior, government and politics, social change and religion.

Student Learning Objectives/Outcomes

After completing the course students will be able to:

1) Identify, describe and explain human behavior and how they are influenced by social structures, institution 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 critical evaluate relevant issues, ethical dilemmas and arguments.

Assessment Methods and Tools

1) Quizzes-A10-point objective quiz, covering the assigned reading material in the text, will be given as stated in course outline.
2) Journals-Students are required to write one journal entry per covered chapter.
3) Essays- Three take-home essays based on the course letures-50 points.
4) Video Summaries-At least four videos will be shown during the span of the semester. A typed summary is required and worth 25 points.
5) Examinations-An objective midterm and final exam will be administered. Consisting of previous quiz questions and several new questions.

Basis for Evaluation:

Quizzes: 10 @ 10 points each ……100
Journals: 9 @ 10 points each …… 90
Essays: 2 @ 50 points each ……100
Video Summaries: 4 @ 25 points each ……...100
Midterm Exam ……100
Final Exam ……..150
TOTAL # OF POSSIBLE POINTS 640

State Competencies

Area IV: Social/Behavioral

Students will:

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.

Rubric Rating

E=Excellent	5
G=Good	4
FR=Fair	3
U=Unsatisfactory	2
P=Poor	1
N=Never attended	0

Summary of Results

- Table 1displays the results of student achievement based upon the learning outcomes and competencies
- Ninety-two percent (92%) of student's achievement was good to excellent
- One student did not attend class. Failing the class
- The class achieved the learning outcomes and competencies at a good to excellent level.

Student	C1	C2	C3	C4	Ave.	Grade
1	4	4	4	4	4	A
2	4	4	4	4	4	A
3	4	4	4	4	4	A
4	4	4	4	4	4	A
5	4	4	4	4	4	A
6	4	4	4	4	4	A
7	2	2	3	3	2.5	C
8	4	4	4	4	4	A
9	3	3	3	3	3	B

10	4	3	3	3	3.25	B
11	3	3	3	3	3	B
12	0	0	0	0	0	F
13	3	3	3	3	3	B

Improvements

1) Include more hands-on activities with consideration to various learning styles.
2) Add more oral presentations to focus on issues relevant to factors influenced by politics in society and social institutions.
3) Assign more research assignments so students can learn to utilize various resources
4) Incorporate more Primary and secondary sources into class lessons
5) Use technology and media more as teaching tools

Department of Humanities
Summary Assessment Report
PE138-01, 02 Self-Defense Karate
Jeff Ortzow, Instructor

Goals

The purpose of this report will assess the effectiveness of the delivery of instructional strategies in Self-Defense Karate. This class teaches basic movements and skills of karate with hands on training for self-defense and conditions the whole body.

Overview

This class will teach basic movements and skills of karate with hands on training. Minimal sparring is used during class sessions, yet safety is emphasized. Students learn effective techniques of self-defense, including disciplined tactics and movements through quality instruction. This course is designed to teach students basic blocks, punches, kicks and how to apply each aspect, with an emphasis on conditioning. Repetitive motion will build muscle memory and reaction becomes second nature.

Learning Outcomes:

1) Gain awareness and basic self-defense techniques.
2) Understand the formal aspects of martial arts such as basic techniques (strikes, blocks, kicks, and stances).
3) Improve basic techniques such as kicks, blocks, strikes and defense against grabs and other attacks.
4) Improve physical conditioning
5) Improve flexibility
6) Improve confidence to defend oneself

PE138-03

Student	C1	C2	C3	C4	C5	C6
#1	W	W	W	W	W	W
#2	4	4	4	4	4	4
#3	5	5	5	5	5	5
#4	5	5	5	5	5	5
#5	5	5	5	5	5	5
#6	5	5	5	5	5	5
#7	5	5	5	5	5	5

PE138-01

Student	C1	C2	C3	C4	C5	C6
#1	5	5	5	5	5	5
#2	4	4	4	4	4	4
#3	5	5	5	5	5	5
#4	3	3	3	3	3	3
#5	3	3	3	3	3	3
#6	3	3	3	3	3	3
#7	4	4	4	4	4	4
#8	5	5	5	5	5	5
#9	5	5	5	5	5	5
#10	5	5	5	5	5	5
#11	5	5	5	5	5	5
#12	5	5	5	5	5	5

Assessment Methods and Tools:

1) Course is graded on **S**atisfactory or **U**nsatisfactory. Therefore attendance is utilize in determining a pass or fail grade.
2) Ability levels vary, according to age, physical fitness, and weight. Some people are athletes some are not. If students attend regularly and show effort, they usually pass the class with a Satisfactory grade.

Improvements:

All materials used in PE138 are my own. The class could benefit with a few more materials, i.e. body shields, hand focus units, and head gears.

SLOA Summary Assessment Report
Summer 2013
Nutrition AH 210
(previously offered as B10 210)
Prepared by Diana Bird MAT, MSN, Nutrition Instructor

PURPOSE:
The purpose of this report is to assess the effectiveness of the delivery of the LCC Nutrition class based on student achievement of the course learning objectives.

COURSE DESCRIPTION:
The premise of this subject is that acquisition of nutrition knowledge, as it pertains to prevention and treatment of disease, prepares the potential health care giver/nursing student for personal internalization of healthy behaviors, which in turn leads to more effective and credible health professionalism.

LEARNING OBJECTIVES:
Based upon reading and written assignments, classroom presentations, and testing procedures, Nutrition will prepare the student to:

1. Interpret base-line knowledge of common nutritional theories.
2. Explain the process involved with digestion, absorption and metabolism of nutrients.
3. Describe the various nutrients and their proportions necessary to prevent disease and maintain health.
4. Communicate the difference between various therapeutic diets.
5. Explain nutritional implications involving the complications of common diseases.
6. Communicate an effective approach toward working with people regarding their health behaviors.
7. Apply their nutrition knowledge to their own personal lifestyle choices .
8. Describe the influence of cultural background on personal health and nutrition.
9. Demonstrate verbal and written skills in class discussions and homework assignments.
10. Develop and use skills for accessing the Internet for acquisition of reliable/credible nutrition information.

REQUIRED TEXT: APPLICATION OF FOUNDATIONS and CLINICAL NUTRITION---A NURSING APPROACH
Grodner, Anderson and De Young 5th edition

ASSESSMENT METHODS:

- 5 Tests, each covering 3-4 text chapters
- 2 week-long Food Records including diet analysis as compared with personal RDA
- 1 week Exercise Record
- Nutrition and Disease Class Presentation, including a referenced 3-5 paper, including visuals (power pts or poster, etc.)
- Topical written assignments summarizing nutritional scientific papers
- Assessment of personal anthropometric measurements and evaluation of disease risk

- Final Exam

Tests were based on class lectures, textual readings, and topical class handouts. The tests included a variety of question styles: T/F, multiple choice, fill-in blank, and Essay. Extra credit questions were usually included in each test.
A Test Review was given to each student 1 week before each test.

Grading was based on:
A 90%---100%
B 80%---89%
C 70%---79%
D 51%---69%
F 0 %---50%

Grading Calculations:
Attendance 10%
Tests 30%
Assignments 40%
Final Exam 20%

SUMMARY OF FORMATIVE DATA:

Tests	**Number of Pts.**	**Mean**	**↑score/**	**↓score**
Test #1	**81**	**58**	**74**	**37**
Test #2	**62**	**48**	**91**	**33**
Test #3	**66**	**51**	**71**	**35**
Test #4	**86**	**57**	**68**	**37**
Test #5	**71**	**51**	**65**	**35**

Assignments	**Number of Pts.**	**Mean**	**↑ score/**	**↓ score**
Food Record #1	**55**	**44**	**55**	**32**
Food Record #2 (w/ criterion)	**55**	**80**	**108**	**25**
Student Presentation	**85**	**66**	**82**	**30**
Diabetes Evaluation	**41**	**41**	**54**	**25**
Miscellaneous (Article Summaries, anthropometric/ nutrient calculations, etc,)	**192**	**170**	**212**	**116**

Final Exam	**Number of Pts**	**Mean**	**↑ score/**	**↓ score**
	179	133	162	110

Summary of Learning Objective Competencies (Total possible pts=50)

Student	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
C1	5	3	4	2	5	4	**3**	**2**	4
C2	4	**3**	5	3	4	4	**2**	**2**	4
C3	5	**3**	4	3	4	4	3	1	4
C4	5	3	4	2	5	4	2	1	4
C5	4	3	5	2	5	4	2	2	3
C6	4	3	4	3	4	4	3	3	4
C7	4	2	5	2	5	3	3	2	4
C8	4	2	5	3	5	4	2	1	4
C9	5	2	4	3	5	4	3	1	3
C10	5	3	5	2	5	5	3	1	4
	45/90%	**27/54%**	**45/90%**	**25/50%**	**47/94%**	**40/80%**	**35/70%**	**16/32%**	**38/78%** 5
Grade	A	D	A	D	A	B	C	F	B-

Scale for Competencies (Total possible pts = 50
1**= Unsatisfactory** performance of objective
2= **Satisfactory** performance of some elements of task and unsatisfactory of others
3= **Capable** of performing tasks adequately, but some elements need improvement
4= **Satisfactory** performance of task. **Acceptable** performance of all elements of task with mastery of some elements
5= **Mastered c**ompetency. Able to perform all elements of task **successfully**
Competency of learning objectives were measured by the chapter Test scores, Food Records, Class Presentation, and multiple other written class assignments. The following descriptions enumerate the measurements particularly involved with each competency scoring:

Comp 1= Unit Test scores and Food records
Comp 2= Unit Test scores
Comp 3= Food Records, Class Presentation and Unit Tests
Comp 4= Unit Tests
Comp 5= Unit Tests, Class Presentations and Disease Risk Evaluation
Comp 6= Class Presentation and Unit Test
Comp 7= Food Record, and Disease Risk Evaluation
Comp 8= Unit Test
Comp 9= Written assignments, and Class Presentation
Comp 10= Written assignments and Class Presentation 6

Conclusions to Improve Student Learning Objectives:

Student Testing appear to have the poorest learning results, and I have therefore purposefully minimized that score in their final evaluations. However, the summer schedule depends on each student receiving the full semester's information in only half of the time, therefore only the dedicated student truly benefited from the summer Nutrition class.

As a college instructor, I believe that the student's greatest learning achievement is in participation, and would therefore emphasize those learning experiences where they must individually and corporately dig for answers.

I will continue to give test reviews before each test

I will continue to encourage/assign projects where each student must present from their findings those health principles that would enhance prevention and correct treatment of disease by application of beneficial nutrition concepts.

I will encourage my students to access credible, peer-reviewed information from the internet and summarize their results.

I will continue to present nutrition in a format that encourages individual accountability for their own health, and for future professionalism in the arena of healthy behaviors.

DEPARTMENT OF SCIENCE, MATH, and ENGINEERING TECHNOLOGY
SUMMARY ASSESSMENT REPORT
BIOL 105 – BIOLOGY FOR NON-MAJORS – SUMMER 2013
ROBERTA M. MONTANO, INSTRUCTOR

PURPOSE

The purpose of this report is to assess if students in Biology 105 – Biology for Non-majors are meeting state HED mandated science competencies for a General Education Core transfer course. The end goal of assessment is to improve student learning. The data collected from this class will be used to improve student learning with respect to comprehension of the material covered in this class.

BACKGROUND

BIOL 105 – Biology for Non-majors has been taught continually at LCC. The course is described in the LCC 2012-2015 Catalog:

> This course designed for the non-science major student. The course is a survey of the fundamental concepts in biology with an emphasis on current issues and social implications such as environmental issues, ecology, heredity, etc.

During the Summer of 2013 semester the course started with 17 students; at the end of the semester going into the final exam 14 students remained; only 13 students took the final exam.

LEARNING OUTCOMES

NM LAB SCIENCE COMPETENCIES:

1. Students will describe the process of scientific inquiry.

Students should:

   a. Understand that scientists rely on evidence obtained from observations rather than authority, tradition, doctrine, or intuition.
   b. Students should value science as a way to develop reliable knowledge about the world.

2. Students will solve problems scientifically.

Students should:

   a. Be able to construct and test hypotheses using modern lab equipment (such as microscopes, scales, computer technology) and appropriate quantitative methods.
   b. Be able to evaluate isolated observations about the physical universe and relate them to hierarchically organized explanatory frameworks (theories).

3. Students will communicate scientific information.

Students should:

   a. Communicate effectively about science (e.g., write lab reports in standard format and explain basic scientific concepts, procedures, and results using written, oral, and graphic presentation techniques).

4. Students will apply quantitative analysis to scientific problems.

Student should:

a. Select and perform appropriate quantitative analyses of scientific observations.
b. Show familiarity with the metric system, use a calculator to perform appropriate mathematical operations, and present results in tables and graphs.

5. Students will apply scientific thinking to real world problems.

Students should:

a. Critically evaluate scientific reports or accounts presented in the popular media.
b. Understand the basic scientific facts related to important contemporary issues (e.g., global warming, stem cell research, cosmology), and ask informed questions about those issues.

COURSE SPECIFIC LEARNING OBJECTIVES

Upon completion of BIOL 105 – Biology for Non-Majors, students will:

1) Describe the characteristics of a scientific hypothesis.
2) List the steps of the scientific method.
3) Describe the reasons for a controlled experiment.
4) Describe the main characteristics of all living things.
5) Describe importance of carbon in living organisms.
6) Describe the structure of carbohydrates, proteins, lipids and nucleic acids.
7) Compare and contrast prokaryotic and eukaryotic cells.
8) Describe the role of nutrients in the body.
9) Describe the process of cellular respiration and photosynthesis.
10) Demonstrate through lab reports and understanding of measurements and mathematics used in this course.

ASSESSMENT METHODS

The methods used to assess student progress toward and achievement of the learning outcomes included:

- Quizzes, exams and final exam
- Chapter homework assignments
- Laboratory reports and activities
- Attendance and Participation.

SUMMARY OF RESULTS

The following tables display the results of student achievement of the learning outcomes. The results are shown for each section.

COMPETENCY RATING FORM – BIOL 105 BIOLOGY FOR NON-MAJORS SUMMER 2013

	Student ID #	C1	C2	C3	C4	C5	Average
1	A	3	3	3	3	3	3
2	B	5	5	5	5	5	5
3	C	3	2	3	2	3	2.3
4	D	4	3	3	3	4	3.2
5	E	5	5	5	5	5	5
6	F	3	3	2	2	2	2.1
7	G	4	3	4	3	4	3.3
8	H	4	5	4	4	4	4
9	I	4	4	4	4	4	4
10	J	4	4	4	4	4	4
11	K	5	5	4	4	5	4.3
12	L	4	4	3	4	4	3.1
13	M	3	2	4	2	3	2.4
14	N	2	2	3	2	3	2.2

PRE-POST TEST COMPARISON

Student A	Pre 56% Post 60%	Student I	Pre 48% Post 80%
Student B	Pre 96% Post 98%	Student J	Pre 56% Post 88%
Student C	Pre 56% Post 72%	Student K	Pre 0 Post 76%
Student D	Pre 0% Post 72%	Student L	Pre80% Post 84%
Student E	Pre 80% Post 92%	Student M	Pre 68% Post 76%
Student F	Pre 76% Post 0	Student N	Pre 72% Post 80%
Student G	Pre 64% Post 88%		
Student H	Pre 84% Post 88%		

SUMMARY CONCLUSION: FUNDAMENTAL PREREQUISITES FORE EFFECTIVE LEARNING

The areas of weakness that affected their performance in the Biology for Non-majors class:

- Students do not read the chapters, thereby making it difficult for them to comprehend the material and do well on quizzes and tests.
- Students do not do their homework on a weekly basis and or do not turn in assignments on time.
- Students have a difficult time writing a lab report.

- Some students have poor attendance, which in turn affects their comprehension and their grade.

EXAMPLES OF THE USE OF ASSESSMENT DATA FOR IMPROVING STUDENT LEARNING OUTCOMES

BIOL 105 – Biology for Non-majors is delivered via multimedia lecture with class participation and discussions. Students are responsible for their learning of the material outside of the classroom by reading the information from the textbook and handouts, doing the homework assignments. In addition, students get hands-on experience by doing the lab portion of the course. Students are expected to read the lab material prior to starting the labs.

The following describes the proposed modification to the course delivery and the student behavior patterns:

- More time spent on the understanding of the lab activities dealing with the metric system (e.g., volume, mass, length).
- More lab activities that require an understanding of the data collected and how to graph the data so that it makes more sense.
- Continue with homework assignments for the course, but not all of the multiple choice questions at the end of the chapter because the answers are at the back of the textbook.
- Continue with weekly quizzes to check for understanding.
- Oral student presentation to focus on communicating skills and understanding of scientific information.