

**ASSESSMENT REPORT
CENTRAL NEW MEXICO COMMUNITY COLLEGE**

The purpose of this form is to provide a written summary of your assessment results for the current assessment cycle.

Fall 2011-Spring 2012

(Assessment Period Covered)

June 15th, 2012

(Date Report Submitted)

Choose ONE of the following 3 areas for this assessment report and insert the name of the general education area, certificate, degree or discipline on the appropriate line:

See definitions for each category in Assessment Process document

Gen Ed Area (see definitions)	_____ Lab Sciences	or	Program	_____ PRE-HEALTH SCIENCE DEGREE
	AA/AS <input type="checkbox"/> AAS <input type="checkbox"/>			Certificate <input type="checkbox"/> AA/AS <input checked="" type="checkbox"/> AAS <input type="checkbox"/>
Or Discipline Area (see definitions)	_____			

Outcome(s) assessed:
 PRE-HEALTH SCIENCE DEGREE OUTCOMES:
 PHS2. Demonstrate computational skills with and without the use of technology.
 PHS3. Be able to generate and interpret a variety of graphs and/or data sets.
 GE4/PHS4. Demonstrate problem-solving skills within the context of mathematical applications.
 PHS5. Employ critical thinking skills to judge the validity of information from a scientific perspective.
 GE2/PHS6. Apply the scientific method to formulate questions, analyze information/data and draw conclusions.
 GE3/PHS7. Properly operate laboratory equipment to collect relevant and quality data.
 PHS8. Analyze relevant issues utilizing concepts and evidence from the social/behavioral sciences.
 GE6. Relate science to personal, social or global impact.

BIO 2292 COURSE OUTCOMES
 2a. Identify major epithelial tissues by microscopy

- 2b. Identify major connective tissues by microscopy.
- 2c. Describe location of epithelial tissues.
- 2d. Describe location of connective tissues.
- 3a. Identify components of integumentary system by microscopy
- 3b. Describe function of integumentary system components.
- 4a. Identify components of compact bone by microscopy.
- 5a. Identify histological features of muscle types by microscopy.
- 6a. Identify histological features of nervous tissue by microscopy.

BIO 2392 COURSE OUTCOMES

- 6a. Describe the major functions of the digestive system.
- 6b. Identify components of the digestive system on models and cadavers.
- 6c. Identify histological features of digestive structures on microscope slides.
- 6d. Identify the blood vessels of the abdominal circulation.
- 6e. Trace the pathway of a glucose molecule from relevant sites in the alimentary canal, through the hepatic portal system, and back to the heart, naming structures along the way.
- 6f. Trace the pathway of bile from the liver lobule to the gallbladder, and into the alimentary canal, naming structures along the way.

Classes/Cohort Assessed:

- BIO 1492 Biology for Health Sciences Majors Lab
- BIO 2292 Anatomy and Physiology I Lab
- BIO 2392 Anatomy and Physiology II Lab

Measurement tool(s):

- BIO 1492 selected midterm questions SP12
- BIO 1492 selected final exam questions SP12
- BIO 2292 selected final exam questions F11 and SP12
- BIO 2292 selected final exam questions F11 and SP12
- BIO 2392 selected final exam questions F11 and SP12

Type of tool (for each tool listed above, indicate type of tool):

All tools are direct type tools.

Achievement Target (if more than one measurement tool, list target for each tool separately):

For all tools the target is correct responses by 70% of students.

Assessment Results/Findings (if more than one measurement tool, list results for each tool separately):

PHS2. Demonstrate computational skills with and without the use of technology.

49.39% (1492 SP12 Midterm Exam)

PHS3. Be able to generate and interpret a variety of graphs and/or data sets.

54.14% (1492 SP12 Midterm Exam)

GE4/PHS4. Demonstrate problem-solving skills within the context of mathematical applications.

(1492 SP12 Final)

PHS5. Employ critical thinking skills to judge the validity of information from a scientific perspective.

(1492 SP12 Final)

GE2/PHS6. Apply the scientific method to formulate questions, analyze information/data and draw conclusions.

(1492 SP12 Final)

GE3/PHS7. Properly operate laboratory equipment to collect relevant and quality data.

(1492 SP12 Final)

PHS8. Analyze relevant issues utilizing concepts and evidence from the social/behavioral sciences.

(1492 SP12 Final)

BIO 2292 COURSE OUTCOMES

2a. Identify major epithelial tissues by **microscopy**

(Fall2011 59.4%, Spring2012 89.9%)

2b. Identify major connective tissues by **microscopy**.

(Fall2011 53.3%, Spring2012 65.7%)

2c. Describe location of epithelial tissues.

(Fall2011 62.3%, Spring2012 66.7%)

2d. Describe location of connective tissues.

(Fall2011 45.7%, Spring2012 43.8%)

3a. Identify components of integumentary system by **microscopy**

(Fall2011 44.5%, Spring2012 74.8%)

3b. Describe function of integumentary system components.

(Fall2011 58.2%, Spring2012 60.5%)

4a. Identify components of compact bone by microscopy.

(Fall2011 79.8%, Spring2012 80.4%)

5a. Identify histological features of muscle types by microscopy.

(Fall2011 49.7%, Spring2012 41.2%)

6a. Identify histological features of nervous tissue by microscopy.

(Fall2011 53.1%, Spring2012 58.8%)

BIO 2392 COURSE OUTCOMES

6a. Describe the major functions of the digestive system.

(Fall 2011 85.1%, Spring 2012 76.5%)

6b. Identify components of the digestive system on models and cadavers.

Fall 2011 92.9%, Spring 2012 83.2%)

6c. Identify histological features of digestive structures on microscope slides.

Fall 2011 46.8%, Spring 2012 47.4%)

6d. Identify the blood vessels of the abdominal circulation.

Fall 2011 42.8%, Spring 2012 43.1%)

6e. Trace the pathway of a glucose molecule from relevant sites in the alimentary canal, through the hepatic portal system, and back to the heart, naming structures along the way.

Fall 2011 33.3%, Spring 2012 37.5%)

6f. Trace the pathway of bile from the liver lobule to the gallbladder, and into the alimentary canal, naming structures along the way.

Fall 2011 79.5%, Spring 2012 70.5%)

Action Plan (close the loop): NA

**CENTRAL NEW MEXICO COMMUNITY COLLEGE
ASSESSMENT REPORT – Part II
Action Plan & Assessment Plan Update**

The purpose of this form is to provide a written summary of your assessment action plan for the designated assessment cycle and provide an updated assessment cycle plan for the current 5-year cycle

Fall 2011-Spring 2012
 (Report Period)
 Susan Johnson/sjohnson@cnm.edu/224-4000 ext 50102
 (Contact Person/email/phone)

09/30/12
 (Date Report Submitted)

Indicate **ONE** of the following **3** areas for this assessment report and insert the name of the general education area, certificate, degree or discipline on the appropriate line:

See definitions for each category in Assessment Process document

Gen Ed Area (see definitions) _____ AA/AS <input type="checkbox"/> AAS <input type="checkbox"/>	or	Program <u>Pre-Health Science</u> Certificate <input type="checkbox"/> AA/AS <input checked="" type="checkbox"/> x AAS <input type="checkbox"/>
Or Discipline Area (see definitions) _____		

Data Results Period upon which this Action Plan is based (period which ended 6/30/xx): 8/29/11-6/30/12

Action Plan (close the loop):
BIO 1492 Action Plan:
 Some of the 1492 midterm exam questions will be split into two portions, so that math skills are graded separately from biological content mastery.
 Changes to the lab manual and schedule of student activities have been altered so that math and metric material is presented over the

entire term.

Many BIO 1492 students have very poor math skills coming in to the course. They are unfamiliar with the metric system and scientific notation. We will investigate the issue through discussions with the math department and SAGE to determine how student math skills may be improved before they take BIO 1492. Curricular changes to the current pre-requisite course or possibly the creation of a new pre-requisite course will be pursued.

Math topics that are currently part of the BIO 1492 curriculum will be added to the BIO 2292 curriculum to give students more exposure and more practice.

Students will be quizzed weekly on metric problem-solving skills.

PHS degree outcomes 1 and 5 are not yet being assessed, so we need to develop tools for those outcomes.

ASSESSMENT PLAN

The assessment plan includes three parts:

1. **The plan description** (This should be a brief written description of the assessment plan(s) for the area/certificate/degree/discipline. If all outcomes are not shown in item #3 below as assessed in the 5 year cycle, this description must include information about their eventual assessment)
2. **The student learning outcomes for the area/program/discipline** for the 5 year cycle.
3. **The assessment cycle timeline**

1 Plan Description

In BIO 1492 PHS degree outcomes are assessed by a question set that is part of the midterm exam for the course and a question set that is part of the final exam for the course. PHS degree outcomes 1 and 5 are not yet being assessed. We will begin assessing those outcomes during the 2012-2013 academic year.

In BIO 2292 course outcomes are assessed by a question set that is part of the final exam. We will begin assessing PHS degree outcomes in Fall 2012.

In BIO 2292 course outcomes are assessed by a question set that is part of the final exam. We will begin assessing PHS degree outcomes in Spring 2013.

- 2 **Provide the list of current student learning outcomes for this area or program (you may add more lines if necessary by right clicking and choosing insert row below):**

1	Communicate clearly, concisely, and with purpose in oral and written form.
2	Demonstrate computational skills with and without the use of technology.
3	Be able to generate and interpret a variety of graphs and/or data sets.
4	Demonstrate problem solving skills within the context of mathematical
5	Employ critical thinking skills to judge the validity of information from a scientific perspective.

6	Apply the scientific method to formulate questions, analyze information/data and draw conclusions.
7	Properly operate laboratory equipment to collect relevant and quality data.
8	Analyze relevant issues utilizing concepts and evidence from the social/behavioral sciences.

3 Assessment Cycle timeline for the above student learning outcomes for the next five years.

Outcome #	When Measured	Where measured (i.e. what course(s))	Measurement tool(s) & Type of tool
1	Fall 2012 Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Final exam Final exam Final exam
2	Every term Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Midterm exam Final exam Final exam
3	Every term Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Midterm exam Final exam Final exam
4	Every term Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Final exam Final exam Final exam
5	Fall 2012 Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Final exam Final exam Final exam
6	Every term Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Final exam Final exam Final exam
7	Every term Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Final exam Final exam Final exam
8	Every term Fall 2012 Spring 2013	BIO 1492 BIO 2292 BIO 2392	Final exam Final exam Final exam