

**STUDENT LEARNING ASSESSMENT PROGRAM
SUMMARY FORM AY 2010-2011**

Degree and Program Name:

B.S. Clinical Laboratory Sciences

Submitted By:

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Please complete a separate worksheet for each academic program (major, minor) at each level (undergraduate, graduate) in your department. Worksheets are due to CASA this year by **June 15, 2011**. Worksheets should be sent electronically to kjsanders@eiu.edu and should also be submitted to your college dean. For information about assessment or help with your assessment plans, visit the Assessment webpage at <http://www.eiu.edu/~assess/> or contact Karla Sanders in CASA at 581-6056.

PART ONE

What are the learning objectives?	How, where, and when are they assessed?	What are the expectations?	What are the results?	Committee/ person responsible? How are results shared?
1. Students will demonstrate the ability to communicate and understand molecular and cell biology BIO 3120	Lecture examinations and laboratory exercises on projects as reported through the evaluation rubrics CLS Student Survey Laboratory course instructors and hospital coordinators	75% of students in BIO 3120 will have an acceptable to superior range of understanding. 75% of graduating seniors agree or strongly agree that they have an understanding of molecular and cell biology 100% passing rate on the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) exam	6/6 students (100%) were in the acceptable to superior range of understanding molecular and cell biology concepts The CLS students did agree or strongly agree that the CLS curriculum enhanced their understanding of molecular and cell biology concepts 100% of the 2010 graduates passed the NAACLS exam	BIO 3120 instructors complete rubrics for each student and forwards the completed rubrics to the CLS Program Director CLS Program Director sends survey to students finishing their hospital rotation The affiliated hospital coordinate testing through NAACLS and share pass/fail information with the CLS Program Director Information shared with Biological Sciences

2. Students will demonstrate the ability to communicate and understand immunological concepts BIO 3210	Lecture examinations and laboratory exercises on projects as reported through the evaluation rubrics	75% of students in BIO 3210 will have an acceptable to superior range of understanding.	4/4 (100%) students were in the acceptable to superior range of understanding immunological concepts	BIO 3210 instructors complete rubrics for each student and forward the completed rubrics to the CLS Program Director
	CLS Student Survey	75% graduating seniors agree or strongly agree that they have an understanding of immunology	The CLS students did agree or strongly agree that the CLS curriculum enhanced their understanding of immunological concepts	CLS Program Director sends survey to students finishing their hospital rotation
	Laboratory course instructors and hospital coordinators	100% passing rate on the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) exam	100% of the 2010 graduates passed the NAACLS exam	The affiliated hospital coordinate testing through NAACLS and share pass/fail information with the CLS Program Director
3. Students will demonstrate critical thinking skills	Laboratory exercises on course projects as reported through the evaluation rubrics	75% of students will have an acceptable to superior range of demonstrated critical thinking skills	10/10 (100%) students demonstrated acceptable to superior ranges of critical thinking skills	Information shared with Biological Sciences
	CLS Student Survey	75% of graduating seniors agree or strongly agree that the program enhanced their critical thinking skills	The CLS students did agree or strongly agree that the CLS curriculum enhanced their critical thinking skills	Molecular and Cell biology BIO 3120 and Immunology BIO 3210 instructors complete rubrics and share with CLS Program Director
	CLS Student Survey	75% of students will indicate that they had an acceptable to superior range of demonstrated writing skills	I out of 1 students indicated that they had an acceptable to superior range of writing skills	Information shared with Biological Sciences
4. Students will demonstrate their ability to write effectively.	Electronic Writing Portfolios	Students will obtain at least a satisfactory rating on the Electronic Writing Portfolio	There were no EWP submissions by CLS students	CLS Program Director sends survey to students finishing their hospital rotation. The students then send back their responses to the CLS Program Director
				Center for Academic Support and Achievement
				Information shared with Biological Sciences

(Continue objectives as needed. Cells will expand to accommodate your text.)

PART TWO

Describe what your program's assessment accomplishments since your last report was submitted. Discuss ways in which you have responded to the CASA Director's comments on last year's report or simply describe what assessment work was initiated, continued, or completed.

Last year a rubric was implemented for Molecular and Cellular Biology BIO 3120, to further increase direct assessment of this year includes a rubric for Immunology BIO 3210 was added. Continued refinement of the assessment process occurred this year by attempting to address the comments from the "Student Learning Assessment Program Response to Summary Form".

PART THREE

Summarize changes and improvements in **curriculum, instruction, and learning** that have resulted from the implementation of your assessment program. How have you used the data? What have you learned? In light of what you have learned through your assessment efforts this year and in past years, what are your plans for the future?

The student surveys reinforced the importance of the scientific courses taken at EIU, specifically: Immunology, Microbiology and Chemistry.

Last year the Department of Biological Sciences strengthened the laboratory element for BIO 3120 Molecular and Cell Biology by combining it with the lecture. We will continue to assess this change.

**BIO 3210 – Immunology
Evaluation Rubric**

	Superior (4)	Good (3)	Acceptable (2)	Unsatisfactory (1)
Immunology	Clearly articulates the central concepts; Relates cell structures with functions.	Understands the central concepts; Understands cell structures with functions.	Recognizes the central concepts; Recognizes cell structures with functions.	Unable to recognize the central concepts; Unable to recognize cell structures with functions.
Laboratory	Can formulate hypothesis; Show evidence of exceptional techniques; Can interpret and explain data; Design controls and further experiments; Explain results clearly.	Can formulate hypothesis; Show evidence of good techniques; Can explain data; Design controls; Describe results with some explanation.	Identify a hypothesis; Show evidence of adequate techniques; Can describe data; Recognize controls; Recognize results adequately.	Unable to identify a hypothesis; Show no evidence of sound techniques; Cannot describe data; Unable to recognize controls; Cannot describe results.
Critical Thinking	Can integrate knowledge from different areas; Can analyze experimental approaches; Able to extract information from complex descriptive passages; Present results in logical and structured fashion.	Can identify knowledge from different areas; Can differentiate experimental approaches; Able to extract some information from complex descriptive passages; Present results in structured fashion.	Can recognize knowledge from different areas; Can name different experimental approaches; Able to extract some information from descriptive passages; Present results.	Cannot recognize knowledge from different areas; Cannot name different experimental approaches; Unable to extract information from descriptive passages; Unable to present results.

Student:

Date:

	Superior (4)	Good (3)	Acceptable (2)	Unsatisfactory (1)
Immunology				
Laboratory				
Critical Thinking				

**BIO 3120 – Molecular and Cell Biology
Evaluation Rubric**

	Superior (4)	Good (3)	Acceptable (2)	Unsatisfactory (1)
Molecular Biology	Clearly articulate the Central Dogma; Define the structure and function of nucleic acids and proteins; Describe the essential molecular components of a cell.	Recognize the Central Dogma; Name the structures of nucleic acids and proteins; Name the essential molecular components of a cell.	Identify Central Dogma; Can identify nucleic acids and protein structures; Recognize the essential molecular components of a cell.	Unable to recognize Central Dogma; Cannot identify nucleic acids and protein structures; Unable to recognize the essential molecular components of a cell.
Cell Biology	Explain the structure and function of cell organelles; Relate cell metabolic processes to cell functions; Characterize the different modes of cell-to-cell communication; Explain mechanisms of cell division.	Name the structure and function of cell organelles; Name the cell metabolic processes; Distinguish modes of cell-to-cell communication; Identify mechanisms of cell division.	Identify the structure and function of cell organelles; Recognize the cell metabolic processes; Recognize the different modes of cell-to-cell communication; Identify mechanisms of cell division.	Cannot identify the structure and function of cell organelles; Cannot identify the cell metabolic processes; Unable to recognize the different modes of cell-to-cell communication; Cannot identify mechanisms of cell division.
Scientific Method	Can formulate hypothesis; Show evidence of exceptional techniques; Can interpret and explain data; Design controls and further experiments; Explain results clearly.	Can formulate hypothesis; Show evidence of good techniques; Can explain data; Design controls; Describe results with some explanation.	Identify a hypothesis; Show evidence of adequate techniques; Can describe data; Recognize controls; Recognize results adequately.	Unable to identify a hypothesis; Show no evidence of sound techniques; Cannot describe data; Unable to recognize controls; Cannot describe results.
Critical Thinking	Can integrate knowledge from different areas; Can analyze experimental approaches; Able to extract information from complex descriptive passages; Present results in logical and structured fashion.	Can identify knowledge from different areas; Can differentiate experimental approaches; Able to extract some information from complex descriptive passages; Present results in structured fashion.	Can recognize knowledge from different areas; Can name different experimental approaches; Able to extract some information from descriptive passages; Present results.	Cannot recognize knowledge from different areas; Cannot name different experimental approaches; Unable to extract information from descriptive passages; Unable to present results.

Student:

Date:

	Superior (4)	Good (3)	Acceptable (2)	Unsatisfactory (1)
Molecular Biology				
Cell Biology				
Scientific Method				
Critical Thinking				

Date:

CLS Annual Survey

Near the end of the clinical rotation, students in the CLS program at EIU are asked to complete a survey evaluating the strengths and weaknesses of the CLS program as well as academic and hospital resources using a four-point scale. Written comments are welcome and encouraged.

CURRICULUM

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree; NA = Not applicable

1. Molecular and Cell Biology (BIO 3100/3101 or 3210) improved my understanding of cell structure and function and the techniques utilized for identification of cells.
4 3 2 1 NA
2. Immunology (BIO 3210) improved my understanding the human immune system
4 3 2 1 NA
3. The CLS curriculum enhanced my writing skills
4 3 2 1 NA
4. The CLS curriculum enhanced my critical thinking and problem solving skills
4 3 2 1 NA
5. My experience at the hospital improved my understanding of the expectations of a lab technician
4 3 2 1 NA
6. My hospital rotation enhanced my professional development
4 3 2 1 NA

Which courses at EIU were most helpful in preparing you for your hospital rotation? Why?

Which courses at EIU were least helpful in preparing you for your hospital rotation? Why?

What experiences during your hospital rotation were most helpful in your goal to become a Clinical Laboratory Scientist?

What changes would you make to improve the CLS program?

Additional Comments: