***STUDENT LEARNING ASSESSMENT PROGRAM***

***SUMMARY FORM AY 2016-2017***

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, 2017**. 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.

**B.S. Clinical Laboratory Sciences**

**Degree and**

**Program Name:**

# Submitted By:

**Gary A. Bulla**

**Please use size 10 font or larger.**

**PART ONE**

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| 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 perform basic biology laboratory skills. | Assessed during laboratory exercises and examinations by instructors in core courses with lab component. | 80% will demonstrate appropriate lab skills in the core courses. | Did not assess this year due to failure to send out requests for information early enough for faculty response.  | Instructors share data with Chair, currently serving as CLS Director. Full data is shared back to faculty and hospital directors at annual CIMLE meeting. |
| 2. Students will demonstrate the ability to communicate and understand molecular and cell biology BIO 3120. They will need to demonstrate the quantitative and analytical skills to analyze data sets generated by biological experiments and surveys | Lecture examinations and laboratory exercises and research projects, assessed by facultyEvaluation rubrics as evaluated by course instructorsCLS Student Survey National Accrediting Agency for Clinical Laboratory Sciences exam (NAACLS): Molecular and cellular biological components are a significant portion of the exam. Passing this exam would indicate strength in molecular and cellular biological science knowledge | 80% of the students in BIO 3120 will demonstrate proficiency by attaining grades of C or higher 75% of students in BIO 3120 will have an acceptable to superior range of understanding. 75% graduating seniors agree or strongly agree that they have an understanding of molecular and cell biology100% passing rate on the National AccreditingAgencyforClinical Laboratory Sciences (NAACLS) exam | 100% (5/5) of the students earned grades of C or higher100% (5/5) students were rated as good to superior in understanding molecular biology concepts and cell biology concepts. thereof.4/4 graduating CLS students agreed or strongly agreed that the CLS curriculum enhanced their understanding of molecular and cell biology concepts. 100% of the 2014 and 2015 graduates passed the NAACLS exam.  | BIO 3120 instructors complete rubrics for each student and forward the completed rubrics to the CLS Program Director which is then shared with Biological Sciences faculty at the annual retreat.The CLS Program Director tabulates the data and shares the information with the Biological Sciences Dept during the annual faculty retreat. Info shared with the hospital directors at the annual CIMLE meeting.The affiliated hospital coordinates the testing through NAACLS and share pass/fail information with the CLS Program Director. This information is shared with Sciences faculty at the annual retreat. |
| 3. Students will demonstrate the ability to communicate and understand immunological concepts BIO 3210. They will need to demonstrate the quantitative and analytical skills to analyze data sets generated by biological experiments and surveys | Lecture examinations and laboratory exercises and research projects, assessed by facultyEvaluation rubrics as evaluated by course instructorsCLS Student Survey National Accrediting Agency for Clinical Laboratory Sciences exam (NAACLS): Molecular and cellular biological components are a significant portion of the exam. Passing this exam would indicate strength in molecular and cellular biological science knowledge | 80% of the students in BIO 3210 Immunology will demonstrate proficiency by attaining grades of C or higher 75% of students in BIO 3210 Immunologyt will have an acceptable to superior range of understanding. 75% graduating seniors agree or strongly agree that they have an understanding of molecular and cell biology100% passing rate on the National AccreditingAgencyforClinical Laboratory Sciences (NAACLS) exam | 100% of the students earned grades of C or higher7/7 students (100%) were in the acceptable to superior range of understanding immunology concepts. 4/4 graduating CLS students agreed or strongly agreed that the CLS curriculum enhanced their understanding of immunology concepts. 100% (5/5) of the AY17 graduates passed the NAACLS exam.  | BIO 3210 instructors complete rubrics for each student and forward the completed rubrics to the CLS Program Director which is then shared with Biological Sciences faculty at the annual retreat.The CLS Program Director tabulates the data and shares with the Biological Sciences Dept during the annual faculty retreat. Info shared with the hospital directors at the annual CIMLE meeting.The affiliated hospital coordinates the testing through NAACLS and share pass/fail information with the CLS Program Director. This information is shared with Sciences faculty at the annual retreat. |
| 4. Students will enhance global citizenship and demonstrate ethical behavior by: Participation in clubs including volunteering.Internship experience | Response to CLS student surveyInherent to working/learning environment during internship | 50% of graduating seniors will indicate that they have participated in clubs.Close to 100% as this is incorporated into the internship experience. A drop in this percentage will be due to failure in the internship or withdrawal. As the expectations for admission to the internship is competitive, it should deter failure or withdrawal. | 1/5 of graduating seniors indicated that they participated in one or more of these clubs.In the last 10 years approx. 39 students out of 40 have successfully completed the internship. | Data will be shared with BIO faculty at the annual retreat. |
| 5. Students will demonstrate critical thinking skills. A necessary component as a clinical laboratory scientist. At the very least the student needs to identify different experimental approaches, be able to extract some information from descriptive passages and present results. | Laboratory exercises on course projects as reported through the evaluation rubricsCLS Student Survey | 75% of students will have an acceptable to superior range of demonstrated critical thinking skills 75% of graduating seniors agree or strongly agree that the program enhanced their critical thinking skills | 9/9 (100%) students demonstrated acceptable to superior ranges of critical thinking skills. 95% is in the desired range.  Only 1 of 3 students completed survey. This student strongly agreed that the CLS curriculum enhanced critical thinking skills | Molecular and Cell biology BIO 3120 and Immunology BIO 3210 instructors complete rubrics and share with CLS Program Director which is then shared with Biological Sciences faculty at the annual retreat. and the hospital directorsInformation shared with Biological Sciences and hospital directors |
| 6. Students will demonstrate their ability to write effectively. To succeed as a professional students, need to have strong written communication skills. | CLS Student Survey Electronic Writing Portfolio data | 75% of students will indicate that they had an acceptable to superior range of demonstrated writing skillsStudents will obtain at least a passing rating (3-4) on the Electronic Writing Portfolio | The one response of graduating CLS student strongly agreed that the CLS curriculum enhanced their critical thinking skillsWith 9 EWP submissions, students averages 3.6/4.0 ratings (compared to 3.46 for BIO and 3.37 for COS and EIU. | CLS Program Director sends survey to students finishing their hospital rotation. The students then send back their responses to the CLS Program Director which is then shared with Biological Sciences and the hospital directorsInformation received from Karla Sanders.  |

**PART TWO**

Describe 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.

Small populations in the various categories of assessment make is difficult to rely on much of the assessment data. The 100% job placement rate immediately post-graduation provide strong evidence of positive program outcome.

**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 director of the CLS program has shifted from the pre-health advisor (a position not refiled to date) to Gary Bulla in FY16, then to Dr. Steve Daniel in FY17. Dr. Daniel has now retired and Dr. Bulla will be serving as director for FY18. This shifting has caused some disruption in assessment.

We continue to capture student input regarding the CLS program from surveys delivered electronically to graduating seniors. However, the questionnaire was not sent out to the three graduating seniors, and only one survey was completed. Although this student provided very positive comments about the CLS program, the sample size is too low to use as an assessment tool.

Immediate employment in field of training remains at 100%. We continue to see the negative side of the interest in this program as there are students who are weak in the sciences wanting to pursue the field. The realization of their science weakness typically occurs during their time in BIO 3120 Molecular and Cellular Biology, as there are fewer students that enroll in BIO 3210 Immunology and those being accepted into hospitals is 3-5 students per year despite ~40 students in the program.

Although it becomes more difficult to gain admission to the hospitals for the final year internship, those that do make it in, are very strong candidates.

To qualify for board certification the hospitals require a minimum of 16 credit hours in chemistry including organic chemistry or biochemistry. They also require 16 hours of biology that includes microbiology and immunology. These requirements are required for the hospitals to remain certified by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The data is suggesting that the preparation at EIU solid based on the student responses and results of the national certification pass rate of 100%