

Student Learning Outcomes
Bachelor of Science in Clinical Laboratory Science
Department of Health Sciences
College of Applied Science and Technology

1. Demonstrate theoretical knowledge and technical skills in the clinical laboratory according to approved laboratory standards.
2. Integrate and interpret data within the parameters of accepted laboratory testing standards of the institution.
3. Demonstrate administrative skills consistent with philosophies of quality assurance, continued quality improvement, laboratory education and resource management.
4. Demonstrate professionalism through acceptable attire, attitude, organizational and time management skills.
5. Advocate for the safety of all in the working environment by following all safety rules and regulations.

Clinical Laboratory Science Program Assessment Plan

The Clinical Laboratory Science Program utilizes a multiple-measures approach to program quality management on a course, program, departmental, and university level. The evaluation strategies target five major “customers” of the CLS Program: students, graduates, employers, institution and external accreditation agencies. The following table provides a list of the various evaluation programs, individuals responsible, evaluators, evaluation techniques and frequency of evaluation.

Summary Table of CLS Program Evaluation Activities

Evaluation Programs	Responsible Authority	Evaluators	Evaluation Techniques	Frequency
HSC Assessment Plan	Department Chairperson	Students Graduates Employers	Survey Questionnaires	Annually
CLS Advisory Committee	CLS Program Director	Representatives of affiliated hospitals	Open Discussion	Annually
Weekly Faculty Meeting	Program Faculty	Faculty	Open Discussion	Weekly
Professional Practice	Program Faculty	Professional Practice Supervisors	Performance evaluations	Annually
Faculty Evaluations	Department Chairperson	Students	Performance evaluations	Every Semester
NAACLS Accreditation	National Accrediting Agency for Clinical Laboratory Science	CLS Peer Reviewers	Self-study and Site visit	Every 5-7 years

Each of these assessment programs are discussed in more detail using the following format:

Assessment Process: a summary of structure and process used to capture data regarding CLS Program performance.

Evaluation: an explanation of how the assessment findings are evaluated and integrated into the program.

Department of Health Sciences (HSC) Assessment Plan

Assessment Process

In 1996, the Department of Health Sciences (HSC) Assessment Plan was created to implement a uniform, department-wide, quality management program. The department chairperson formed the HSC Assessment Committee, a multidisciplinary committee with faculty representatives from each of the five programs in the Health Sciences Department. The goal of the HSC Assessment Committee is to develop assessment tools to capture feedback from groups with a vested interest in the program graduate performance (for example: students, graduates, employers, and the institution itself).

In 1998, the CLS Program began using the following assessment tools to collect program performance data. The data is collected annually and includes data from:

- o Graduating Seniors
- o 1st Year Graduates
- o 5th Year Graduates

Evaluation

Program faculty, the department chairperson and the CLS Advisory Committee review the program performance data annually. Additionally, intradepartmental comparative analyses of each program's assessment data are performed at the departmental chair level to identify opportunities for improvement across the five programs in the department.

CLS Advisory Committee

Assessment Process

The CLS Advisory Committee advises the program faculty regarding goals, curriculum, recruitment, and assessment on an annual basis. The members of this committee are representatives of the hospital affiliates who provide professional practice opportunities to the CLS students. All the committee members have experience in the CLS profession, as well as, first hand knowledge of the professional skills and abilities required of program students.

Evaluation

The CLS Advisory Committee members are active participants in providing program evaluation and guidance. Based on the committee's recommendations, the program structure and curricular content have been reviewed, revised, and implemented over the past five years.

Weekly Program Faculty Meetings

Assessment Process

The CLS Program faculty meets weekly to discuss ongoing program management and curricular issues. Issues are identified and recommendations are presented for modification or correction. The curricular changes are reviewed at the department, college and university level before implementation. The department chairperson and the CLS Advisory Committee monitor program management and structure issues.

In the fall of each year the program faculty reviews its strategic plan. The faculty selects and prioritizes objectives for the up coming year. The objectives are stated as action items and the responsible party is identified.

Evaluation

In the spring of each year, the strategic plan is reviewed to determine which of the objectives have been achieved.

Professional Practice

Assessment Process

Every student who graduates with a degree in Clinical Laboratory Science must participate in professional practice. These professional practice experiences have two main objectives. The first is to build upon students' technical skills and knowledge. The second is to provide students with a "real world" learning experience where the students can apply their knowledge and skills performing tasks in an actual work setting. Both clinical experiences occur in acute care hospital settings. They are prescriptive, structured experiences, which expose the students to all the basic functions and responsibilities of a clinical laboratory. Student performance evaluations are required for each of the functions and tasks the student performs. Students take exams and are assigned grades for their performance in the clinical setting. Students also evaluate the instructors at the professional practice sites.

Evaluation

The program faculty reviews the student evaluation results from these clinical experiences on an annual basis. Faculty, in conjunction with the CLS Advisory Committee, identify areas where student performance is unsatisfactory or has potential for improvement. Since all the students complete similar experiences, this review allows faculty to determine if a majority of students are performing satisfactorily in a selected areas. The faculty reviews provide an ongoing opportunity to evaluate the current

curricular content through student performance in the “real world.” It also provides the faculty with the opportunity to develop new instructional strategies to improve student performance by having the students bring their individual experiences into the classroom.

Faculty Evaluations

Assessment Process

The program faculty is evaluated on three levels: student, peer/self-assessment and professional.

Student Evaluations

Students are required to complete faculty evaluations at the completion of every course. An individual who is not associated with the course administers the evaluations to the students. This assessment process is “blind” to promote student honesty on the evaluation. Individual faculty data are compared to aggregate faculty data from other departmental faculty. From these data, the CLS faculty identifies opportunities for improvement in their individual courses and instructional practices. Faculty members are required to develop a corrective action plan to improve their performance in future courses.

Peer /Self-Assessment Evaluations

Annually, each faculty member is required to develop a self-assessment document or portfolio for review by the department chairperson and the Department Faculty Status Committee (DFSC). Areas of evaluations include teaching, scholarship and service activities. The teaching section of the self-assessment document includes student evaluation of courses, chairperson evaluation of instruction, examples of new or innovative teaching methods and other materials relevant to good teaching. In the scholarship section of the self-evaluation, the faculty member provides information regarding publications, presentations, grants and other scholarly activities produced in the past year. Finally in the section on service, faculty members discuss their service activities at the departmental, college, university, professional and community levels. The self-assessment document is submitted to the DFSC for review. Their evaluation of the document impacts the faculty member’s retention, salary, promotion and tenure status.

Professional Evaluation

Professional assessment is accomplished through each faculty’s presentations and publications.

NAACLS Accreditation

Assessment

The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) accredits the Clinical Laboratory Science Track-2 curriculum. The program was NAACLS accredited for the first time in 1998 for five years, the maximum for first-time accreditation. (The Track-1 hospital-based schools of medical technology are independently accredited by NAACLS.) Every 5-7 years NAACLS requires reaccreditation of programs. The process consists of two parts. The first is a Self-Study Report in which the CLS faculty evaluates the program by comparing it to a series of standards set by NAACLS. The second part is a site visit in which peer CLS educators visit the campus to verify the Self-Study Report, review additional documents and assess program quality on site. The program is currently in the process of reaccreditation, the Self-Study Report is due November 15, 2002 and a site visit will occur in April or May of 2003.

Evaluation

The Self-Study Report is submitted to National Accrediting Agency for Clinical Laboratory Sciences for review and evaluation. Following review of the report, a team of 2-3 CLS educators will visit the campus to further evaluate the program. The site visit team will write a final report that is sent to the NAACLS Board of Directors. Based on the report, the board may grant full accreditation (seven years), conditional accreditation (five years with performance requirements), probationary accreditation (1 year with performance requirements) or withdraw accreditation.

2007 CLS Program Changes

In the fall of 2006 the Clinical Laboratory Science (CLS) Program dropped some biology requirements and expanded a list of science electives in its curriculum. Previously students were required to take twelve credit hours of biology courses which included BSC 203 Cell Biology and BSC 220 Laboratory in Molecular Genetics and Cell Biology. These two courses were moved from the required category to elective; they joined BSC 219 Genetics and BSC 283 Animal Physiology in this category. In addition, the elective category was expanded to include BSC 181 Human Anatomy and Physiology I, BSC 182 Human Anatomy and Physiology II, KNR 181 Human Anatomy and Physiology, KNR 182 Human Anatomy and Physiology, CHE (chemistry) 215 Fundamentals of Analytical Chemistry and CHE 242 Basic Biochemistry. Students are required to take at least six credit hours from the elective list. The program initiated the changes based on feedback from students. The changes will benefit both internal and external transfer students; helping them to complete the CLS degree in a timely manner. These changes go into effect with the 2007-08 catalog.

The program updated the objectives for the professional practice experience. The new objectives were used to modify the evaluation forms for the students. The forms were also changed from a 5 point Likert scale to a 2 point scale. These changes were made in response to feedback from the professional practice affiliates. The objectives needed to be updated to reflect current laboratory practice. The evaluations needed to be updated to correspond to the new objectives.

The program remodeled one laboratory to accommodate more students. The seating capacity increased from twelve to sixteen. This modification was made due to increased demand for CLS courses. More students can enroll in a laboratory class without having to increase the number of lab sections. This modification was made in part based on student feedback.

Exams in the junior level CLS course were moved to the WebCT environment. This move helps prepare students for the on-line courses they will be taking during their senior year. The on-line exams also help prepare them for taking certification exams, which are given on computers. The change from paper to computer exams was made based on faculty discussion.

Students participating in professional practice are now required to complete two modules from the MediaLab, Inc. website before they begin professional practice. The topics covered are Health Insurance Portability and Accountability Act (HIPAA) and Medicare Compliance. The program's clinical affiliates requested that students have knowledge of both topics prior to their start of the professional practice component.

The program added a discussion board for professional practice students. This addition was made in response to student feedback.