



NORTHERN ILLINOIS UNIVERSITY

College of Liberal Arts and Sciences

Department of Chemistry and Biochemistry

Assessment Plan 2012

Program: B.S. in Chemistry and Biochemistry

1. Learning Outcomes

Graduates of the program will be prepared for successful professional careers in chemistry, biochemistry, or post-graduate professional studies by:

1. Reasoning – demonstrate ability to apply theory/concepts to predict chemical behavior, or interpret data related to chemical behavior.
2. Knowledge – demonstrate adequate knowledge of theory/concepts in all major sub-disciplines of chemistry (analytical, biochemistry, inorganic, organic, physical).
3. Laboratory Experience – demonstrate competence in synthetic, instrumental, and wet chemistry techniques.
4. Demonstrated ability to plan and execute experiments.
5. Communication – demonstrate effective oral and written communication skills.
6. Placement – securing employment in a chemistry/biochemistry career or admission to a graduate/post-baccalaureate program in chemistry/biochemistry or professional studies.

2. Explanation of Methods

The following table lists the methods used to assess program learning objectives, a description of each method, a timeline for application/implementation of each method, the departmental staff member responsible for each method, and the specific objectives addressed by each method:

Method	Description	Timeline	Person Responsible	Objectives Addressed
Objective Tests	Evaluation of student performance in each course by instructor	Each semester	Course instructors	1,2,3,4
Standardized Tests	Use of standardized exams developed by the ACS to test competency in all major areas of chemistry. Scores will be compared to national norms.	Once every three years	DUGS will request appropriate faculty to conduct testing in core courses.	1,2
Capstone Research	Evaluation of projects and written reports by faculty advisor and Chair	Annually	Faculty Advisor and Chair	1,2,3,4,5
Exit Interviews	Interviews of graduates to evaluate their perspective on how well program objectives are being met. A sample questionnaire is appended.	Each semester	Chair and DUGS	1,2,3,4,5,6
Alumni Survey	In addition to the university alumni survey, alumni will be asked specific questions about their NIU experience and how well the program prepared	One, five, and 10 years after graduation to coincide with	Chair, DUGS, and departmental curriculum committee	1,2,3,4,5,6



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	them for their careers. A sample questionnaire is appended.	university survey.		
Placement Information	Information on employment status and graduate/professional school acceptance will be collected.	Once a year	Chair and DUGS	6

Outcomes by Methods

The following table correlates each of the assessment methods/tools with the individual learning objectives:

	Objective Tests	Standardized Tests	Capstone Research	Exit Interviews	Alumni Survey	Placement
1. Reasoning	x	x	x			
2. Knowledge	x	x	x	x		
3. Laboratory Experience	x		x	x	x	
4. Plan and Execute Experiments	x		x	x	x	
5. Communication	x		x	x	x	
6. Placement				x	x	x