

BIOLOGY ASSESSMENT REPORT 2015-16
(Due October 1, 2016)

Department/Program: BIOLOGY

Student Learning Objectives (SLO) for MAJORS

Students will

- 1. Demonstrate knowledge of the modern principles of biology**
- 2. Understand pertinent biological principles as they relate to the broader society and their effects on civilization,**
- 3. Demonstrate competency in reasoning skills and analytical skills used in biological sciences**
- 4. Design and conduct investigations in the biological realm**
- 5. Communicate and defend a scientific argument**
- 6. Use advanced equipment and techniques properly**
- 7. Use primary literature for formation of hypotheses, revision, and reformulation**
- 8. Obtain advanced knowledge in one or more specialized areas, sufficient to meet requirements for graduate or professional schools, or employment**

Outcome Measure	SLO's	Description of Departmental Use of Data
Graduating senior biology majors will take a nationally-normed assessment exam modeled on the biology section of the GRE during the spring of their senior year. The exam currently administered is the ACAT exam. (direct)	1,2,3,5,8	Results are reported to the faculty at the annual spring departmental meeting on assessment. The department discusses the findings, takes appropriate department-level actions, reports outcomes to the dean or other bodies with resources to address any issues identified, and reports findings to the Director of Assessment and the Committee on Assessment.
Students take an on-line senior survey that asks what they remember learning and doing	1,2,3,4,5,6,7,8	Results are reported to the faculty at the annual spring departmental meeting on assessment. The department discusses the findings, takes appropriate department-level actions, reports outcomes to the

in the biological sciences during their student experience at VU. (indirect)		dean or other bodies with resources to address any issues identified, and reports findings to the Director of Assessment and the Committee on Assessment.
Faculty who teach upper-level (400s) biology courses will evaluate student performance for learning objectives; includes 4 credit courses plus seminars and research students. (direct)	1,2,3,4,5,6,7,8	Results are reported to the faculty at the annual spring departmental meeting on assessment. The department discusses the findings, takes appropriate department-level actions, reports outcomes to the dean or other bodies with resources to address any issues identified, and reports findings to the Director of Assessment and the Committee on Assessment.

1. **Use of Results**— Review activities and findings by completing the Assessment Activities Table below. You can also provide a brief discussion afterward if you feel it would help the committee understand your assessment activities and findings during this cycle.

2. What **revisions**, if any, to current SLOs and/or outcome measures did you make from previous plan?

3. **Plans**- What learning objectives will you be assessing in the next cycle?

Assessment Activities Table (from Fall, 2015 report; see annotations in red for updates)

<p>This year we assessed SLO(s)... (list each SLO in its own row)</p>	<p>...using Outcome Measure(s) (OMs). (See Report Instructions for description and example) Direct OM(s): A) Assessment exam B) Upper-level course faculty evaluation of student performance Indirect OM(s): A) On-line senior survey</p>	<p>Findings: program-performance for these SLOs, as indicated by these OMs, is: Excellent/Satisfactory/Needs Improvement (See Report Instructions for description and example)</p>	<p>Strategies for Improvement (in selected areas): (See Report Instructions for description and example)</p>
SLO1	Direct A) Direct B) Indirect A)		
SLO2	Direct A) Direct B) Indirect A)		
SLO3	Direct A) Direct B) Indirect A)		
SLO4	Direct B) Indirect A)		
SLO5	Direct A) Direct B) Indirect A)		
SLO6	Direct B) Indirect A)		
SLO7	Direct B) Indirect A)		
SLO8	Direct A) Direct B) Indirect A)		

Discussion (Optional):

In addition to the above, the Biology SLOs (BSLOs) have been correlated as follows to USLOs and GSSLOs, Map I. No changes were made from the Map I that was submitted previously. See the table immediately below for the Map 1 correlations.

Program/ Department SLOs

- BSLO1 Demonstrate knowledge of the modern principles of biology
- BSLO2 Understand pertinent biological principles as they relate to the broader society and their effects on civilization,
- BSLO3 Demonstrate competency in reasoning skills and analytical skills used in biological sciences
- BSLO4 Design and conduct investigations in the biological realm
- BSLO5 Communicate and defend a scientific argument
- BSLO6 Use advanced equipment and techniques properly
- BSLO7 Use primary literature for formation of hypotheses, revision, and reformulation
- BSLO8 Obtain advanced knowledge in one or more specialized areas, sufficient to meet requirements for graduate or professional schools, or employment

Instructions

Mark the courses/events/experiences/activities that currently address either Program SLOs or VU/Gen Ed SLOs for Gen Ed courses using the following:

Enter an **I** to indicate students are introduced to the SLO

R indicates the SLO is reinforced and students afforded opportunities to practice

M indicates that students have had sufficient practice and can now demonstrate mastery appropriate for the degree level

A indicates where evidence is collected and evaluated for program-level assessment as specified in the Departmental Assessment Plan

Course/ Experience	Program/Department SLOs							
	BSLO1	BSLO2	BSLO3	BSLO4	BSLO5	BSLO6	BSLO7	BSLO8
BIO 171	I	I	I	I	I	I	I	
BIO 172	I	I	IR	IR	IR		IR	
BIO 260	M	RA	R		R		R	M
BIO 270	RM	R	R	R	R	R		RM
BIO 290		R	R		R		R	R
BIO 320	R							M
BIO 340	M	M	M		R		R	M
BIO 350		R	R	R	R	I	R	M
BIO 360			R		R	M		M
BIO 380	R	R	M	I	R	R	R	M
BIO 420	RA	RA	MA	MA	MA		RA	MA
BIO 430	RMA	RA	RA	RMA	RMA	RA	RA	IA
BIO 440	MA	MA	MA	MA	MA	RA	MA	MA
BIO 450	MA	MA	MA	MA	MA	MA	MA	MA
BIO 460	MA	MA	MA	MA	MA	MA	MA	MA
BIO 490	RA	RA	RA	RA	RA	MA	RA	RA
BIO 493	RMA	RMA	RA		MA		MA	IRMA
BIO 590	R	RA	MA		R		RA	M

