

# Mission, Goals and Student Learning Outcomes: AY 2018-2019

Please upload the form for each program in Blackboard by **September 25, 2018**.

<b>School</b>	School of Arts and Sciences
<b>Department</b>	Biology
<b>Program</b>	Biology BA
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<b>Date Submitted</b>	September 25, 2018

## I. State Program Mission

The Biology BA program provides in-depth knowledge of the science of life, from molecular biology to ecology. Students develop ability to critically analyze information, to make connections among different areas of biology and to communicate their ideas effectively to the scientific community. Students also acquire critical laboratory skills and learn how to design and perform experiments and to analyze experimental results to test a hypothesis. The Biology BA program is also designed to offer students a possibility to extensively explore their interests in liberal arts, such as fine arts, humanities or social sciences. Our department fosters a multi-cultural, experiential learning environment helping our students to develop into creative and critical individuals

and provides excellent preparation for a variety of professional careers, including graduate programs in biological sciences, medical and dental schools, or teaching.

**II. List Program Goals (PGs) and Program Level Student Learning Outcomes (PSLOs)**

Program Goal	Program Student Learning Outcomes
<p>Goal.1 Students will recognize fundamental principles and concepts upon which modern biology is founded.</p>	<p>Outcome 1.1 Students recognize fundamental biological principles within and across different level of organization, from molecules to ecosystem.</p>
	<p>Outcome 1.2 Students will be able to apply knowledge of fundamental biological principles to explain various concepts and subjects, including cell biology, molecular genetics, evolution and ecology.</p>
	<p>Outcome 1.3 Students will be able to analyze information about biological systems and use it to predict the outcome of a manipulation of a system.</p>
<p>Goal.2 Students will be able to apply scientific method.</p>	<p>Outcome 2.1 Student use quantitative reasoning and critical evaluation.</p>
	<p>Outcome 2.2 Students apply method of scientific inquiry, including observation, data collection and analysis and hypothesis testing.</p>
	<p>Outcome 2.3 Students design an experiment, identifying variables of analysis and appropriate controls to test a hypothesis or model using appropriate laboratory techniques.</p>

Program Goal	Program Student Learning Outcomes
<p>Goal.3 Students have basic technical laboratory skills to collect and analyze data using appropriate statistical methods.</p>	<p>Outcome 3.1 Students will have the ability to perform basic technical laboratory skills.</p>
	<p>Outcome 3.2 Students apply appropriate laboratory technique and demonstrate protocol understanding and proficiency.</p>
	<p>Outcome 3.3 Students identify appropriate common statistical methods to analyze data, including measures of significance.</p>
<p>Goal.4 Students effectively communicate scientific ideas in both written and oral form.</p>	<p>Outcome 4.1 Students describe an experiment or experiments using the standard structure of a research article.</p>
	<p>Outcome 4.2 Students properly define and apply scientific terminology.</p>
	<p>Outcome 4.3 Students critically analyze primary research articles.</p>