Assessment Plan
Alcorn State University
Major (A&S) - Biology BS

Institutional Mission Statement: The University emphasizes intellectual development and lifelong learning through the integration of diverse pedagogies, applied and basic research, cultural and professional programs, public service and outreach while providing access to globally competitive academic and research programs. Alcorn strives to prepare graduates who will be well-rounded future leaders of high character and to be successful in the global marketplace of the 21st century.

School's Mission Statement: The principle thrust of the School of Arts & Sciences is to provide all students with the ability to think critically; to speak and write clearly; to compute accurately; to explain the central social, historical, creative, and cultural developments of civilization; to protect and inhabit the natural environment and comprehend its physical make-up; to function skillfully in an ever-changing technological environment; and to employ this knowledge and these skills in developing a set of personal values and attitudes that induce ethical and moral reasoning.

Unit's Mission Statement: The Mission of the Department of Biological Sciences is to provide students with a broad-based understanding of the principles of biological sciences that fully exploit existing and emerging technologies and to prepare students to excel as professionals, scientists, teachers or productive employees to serve the community, the state, the nation and the world in areas related to life sciences.

Desired Outcome: Microscopic Skills
Students will be able to use of the microscope

Assessment Year(s) Plan: 2012-2013
2013-2014
2014-2015
2015-2016
2016-2017

Start Date: 07/01/2016
Inactive/Archived Date: 06/30/2017
Outcome Status: Active

Assessment Criteria & Procedures

<table>
<thead>
<tr>
<th>Assessment Method/Procedure</th>
<th>Criterion</th>
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<tbody>
<tr>
<td>Students will be able identify the parts of the microscope</td>
<td>100% of the students should be able to correctly identify 50% of the parts of the microscope</td>
<td>2011, 2012, 2013, 2014, 2015, 2016</td>
<td>Yes</td>
</tr>
<tr>
<td>Assessment Type:</td>
<td>Research/Study</td>
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<tr>
<td>Related Documents:</td>
<td>Use of the microscope.pdf</td>
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</table>

| Students should be able to identify specimen | 100% of the students should be able to successfully identify the specimen. | 2011-2016 | Yes |
| Assessment Type: | Lab Assignment |
| Related Documents: | Specimen identification.docx |

| Students should be able to identify the parts of the microscope indicated in the related document. | 100 % of the students should identify all the parts. | 2012-2013, 2013-2014, 2015-2016, 2016-2017 | Yes |
| Assessment Type: | Research/Study |
| Related Documents: | Microscope.docx |
Related Courses

- BI 113L - INTRO. ENVIRONMENTAL BIOLOGY/ECOLOGY LABORATORY
- BI 113 - INTRODUCTORY ENVIRONMENTAL BIOLOGY/ECOLOGY
- BI 114 - HUMAN ANATOMY AND PHYSIOLOGY I
- BI 114L - HUMAN ANATOMY AND PHYSIOLOGY I LABORATORY
- BI 121 - GENERAL ZOOLOGY I
- BI 121L - GENERAL ZOOLOGY I LABORATORY
- BI 122 - GENERAL ZOOLOGY II
- BI 122L - GENERAL ZOOLOGY II LABORATORY
- BI 124 - GENERAL BOTANY
- BI 124L - GENERAL BOTANY LABORATORY
- BI 320 - MEDICAL TERMINOLOGY
- BI 325 - GENERAL MICROBIOLOGY
- BI 325L - GENERAL MICROBIOLOGY LABORATORY
- BI 327 - CELL BIOLOGY
- BI 327L - CELL BIOLOGY LABORATORY
- BI 335 - HUMAN ANATOMY
- BI 335L - HUMAN ANATOMY LABORATORY
- BI 336 - HUMAN PHYSIOLOGY
- BI 336L - HUMAN PHYSIOLOGY LABORATORY
- BI 348 - PLANT PHYSIOLOGY
- BI 348L - PLANT PHYSIOLOGY LABORATORY
- BI 350L - PLANT PATHOLOGY LABORATORY
- BI 355 - GENERAL PARASITOLOGY
- BI 355L - GENERAL PARASITOLOGY LABORATORY
- BI 390 - ENVIRONMENTAL BIOLOGY
- BI 400 - EVOLUTION
- BI 413 - COMPUTER APPLICATIONS IN THE BIOLOGICAL SCIENCES
- BI 420 - MEDICAL MICROBIOLOGY
- BI 420L - MEDICAL MICROBIOLOGY LABORATORY
- BI 423 - INTRODUCTION TO BIOSTATISTICS
- BI 425 - PRINCIPLES OF IMMUNOLOGY
- BI 425L - PRINCIPLES OF IMMUNOLOGY LABORATORY
- BI 426 - PHARMACOLOGY
- BI 445 - GENETICS
- BI 445L - GENETICS LABORATORY
- BI 446 - HISTOLOGY
- BI 446L - HISTOLOGY LABORATORY
- BI 449 - SENIOR PROJECT
Desired Outcome: Central Dogma of Biology

Students should know the central dogma of Biology (DNA to RNA to Protein)

**Assessment Year(s) Plan:** 2013-2014
2014-2015
2015-2016
2016-2017

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<td>One question on the Exit exam related to the topic.</td>
<td>80% of the students will correctly answer the question.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016</td>
<td>Yes</td>
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**Assessment Type:** Exam/Test - Departmental

**Related Documents:**
Course Syllabus
Senior Exit Exam
Research Proposal

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<td>Students will write a paper related to the central dogma of Biology.</td>
<td>80% of the students will score above 70 on the written assignment.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016</td>
<td>Yes</td>
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Desired Outcome: Student should be able to complete a research project

Students should be able to write a paper based upon research articles

**Assessment Year(s) Plan:** 2016-2017

**Start Date:** 06/30/2016
**Inactive/Archived Date:** 07/01/2017
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<tr>
<td>80 % of the students should be able to write a 10-page research paper using the scientific method</td>
<td>The paper will be graded using the attached rubric.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017</td>
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**Assessment Type:** Written Assignment

**Related Documents:** Rubric.docx

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<td>Students will be able to search scientific literature databases.</td>
<td>80% of the students will be able to select pertinent scientific articles.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016</td>
<td>Yes</td>
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</table>

**Assessment Type:** Research/Study

**Related Documents:** BI 449 Independent Study Syllabus2012.doc

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**Desired Outcome:** Students will graduate with the skills required to succeed in graduate and professional programs

Students completing a B.S. Degree in Biology will have acquired the skills to succeed in post graduate experiences.

**Assessment Year(s) Plan:** 2016-2017

**Start Date:** 06/30/2016

**Inactive/ Archived Date:** 07/01/2017

**Outcome Status:** Active

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<tr>
<td>Students graduating with a B.S. degree in Biology will earn a grade of &quot;pass&quot; on the departmental exit exam.</td>
<td>80% of the students scored 70 % or higher on the departmental exit exam.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016</td>
<td>Yes</td>
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**Assessment Type:** Exam/Test - Departmental

**Related Documents:** Exit Exam Questions.pdf

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<tr>
<td>Graduating seniors will be asked to complete a survey before graduation.</td>
<td>50% of the surveyed students will pursue a higher degree.</td>
<td>2011, 2012, 2013, 2014, 2015, 2016</td>
<td>Yes</td>
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**Assessment Type:** Survey

**Related Documents:** Graduating Seniors Exit Survey.docx

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**Desired Outcome:** Demonstrate laboratory skills in the Biological Sciences

Students completing a B.S. degree in Biology will be able to demonstrate basic laboratory skills

**Assessment Year(s) Plan:** 2016-2017

**Start Date:** 06/30/2016

**Inactive/ Archived Date:** 07/01/2017

**Outcome Status:** Active
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<tr>
<td>100% of the students will score above 70 in a sample of Biology Laboratory Courses.</td>
<td>85% of the students passed the laboratory courses.</td>
<td>2011-2016</td>
<td>Yes</td>
</tr>
<tr>
<td>Assessment Type:</td>
<td>Lab Assignment</td>
<td></td>
<td></td>
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<tr>
<td>Related Documents:</td>
<td>Biology Laboratory Courses.docx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students will be evaluated for specific laboratory skills via observation, oral and written examination.</td>
<td>90% of the students will score 80% on visual, oral, or written laboratory examinations to exemplify mastery.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016</td>
<td>Yes</td>
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<td>Assessment Type:</td>
<td>Lab Assignment</td>
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Desired Outcome: Entry level employment opportunities upon completing the B.S. Degree in the Biological Sciences.

After completing the B.S. Degree in Biology, the students will secure entry level employment in specialized areas in education, research, business, healthcare, industry, etc.

**Assessment Year(s) Plan:** 2016-2017

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<td>Students will gain employment based upon the skills and experience they acquired from research opportunities during the undergraduate experience.</td>
<td>100% of the students seeking employment will be granted based upon academic background and research training.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017</td>
<td>Yes</td>
</tr>
<tr>
<td>Assessment Type:</td>
<td>Professional Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students will perform satisfactorily on field placement and internships to prepare for entry level positions.</td>
<td>70% of the students who performed above satisfactory on internships will receive a job appointment an entry level.</td>
<td>2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017</td>
<td>Yes</td>
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<tr>
<td>Assessment Type:</td>
<td>Field Placement/Internship/Practicum</td>
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