Program Outcomes Assessment

MA/MS in Biology

Created on: 08/24/2009 09:07:00 AM CST
Last Modified: 12/04/2012 02:03:40 PM CST
# Table of Contents

**General Information**  
- Standing Requirements  
  - Mission Statement  
  - Outcomes Library  
  - Curriculum Map  
  - Communication of Outcomes  
- Archive  
  - Archive  

**2011-2012 Assessment Cycle**  
- Assessment Plan  
- Assessment Findings  
- Action Plan  
- Status Report  

**2012-2013 Assessment Cycle**  
- Assessment Plan  
- Assessment Findings  
- Action Plan  
- Status Report  

**2013-2014 Assessment Cycle**  
- Assessment Plan  
- Assessment Findings  
- Action Plan  
- Status Report  

**2014-2015 Assessment Cycle**  
- Assessment Plan  
- Assessment Findings  
- Action Plan  
- Status Report  

**2015-2016 Assessment Cycle**
## 2016-2017 Assessment Cycle
- Assessment Plan ................................................................. 13
- Assessment Findings ....................................................... 13
- Action Plan ............................................................................. 13
- Status Report .......................................................................... 13

## 2017-2018 Assessment Cycle
- Assessment Plan ................................................................. 14
- Assessment Findings ....................................................... 14
- Action Plan ............................................................................. 14
- Status Report .......................................................................... 14

## 2018-2019 Assessment Cycle
- Assessment Plan ................................................................. 15
- Assessment Findings ....................................................... 15
- Action Plan ............................................................................. 15
- Status Report .......................................................................... 15

## 2019-2020 Assessment Cycle
- Assessment Plan ................................................................. 16
- Assessment Findings ....................................................... 16
- Action Plan ............................................................................. 16
- Status Report .......................................................................... 16

## Appendix
- ................................................................................................. 17
General Information (Program Outcomes Assessment)
# Standing Requirements

## Mission Statement

The mission of the Department of Biology at Indiana State University is to nurture the academic potential of every student, advance knowledge through quality research, and serve the university and broader communities. Through experiential learning both within and outside the classroom, we motivate our students to become critically thinking, informed citizens with a heightened interest in science. Through one-on-one mentoring, we engage both undergraduate and graduate students in the excitement and challenge of original research. Through research and outreach education, we make valuable contributions at both local and national scales to the scientific community and the well-being of the general public.

## Outcomes Library

### MA/MS in Biology

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Professional communication proficiencies</td>
<td>No Mapping</td>
</tr>
<tr>
<td>Students demonstrate professional communication proficiencies</td>
<td></td>
</tr>
<tr>
<td>2: Contribute to diverse and complex communities</td>
<td>No Mapping</td>
</tr>
<tr>
<td>Students engage in and meaningfully contribute to diverse and complex communities and professional environments</td>
<td></td>
</tr>
<tr>
<td>3: Professional and ethical challenges</td>
<td>No Mapping</td>
</tr>
<tr>
<td>Students recognize and act on professional and ethical challenges that arise in their field or discipline</td>
<td></td>
</tr>
<tr>
<td>4: Mastery of Knowledge</td>
<td>No Mapping</td>
</tr>
<tr>
<td>Students achieve mastery of the knowledge required in their discipline or profession</td>
<td></td>
</tr>
<tr>
<td>5: Mastery of Skills</td>
<td>No Mapping</td>
</tr>
<tr>
<td>Students achieve mastery of the skills (including using appropriate tools) required in their discipline or profession</td>
<td></td>
</tr>
</tbody>
</table>

## Curriculum Map

### Active Curriculum Maps

- **MA/MS in Biology** (See appendix)
  - Alignment Set: MA/MS in Biology
  - Created: 05/24/2012 9:57:37 am CST
  - Last Modified: 05/25/2012 7:52:20 am CST
Communication of Outcomes

Outcomes will be posted on the department's web site.
Archive (This area is to be used for archiving pre-TaskStream assessment data and for current documents.)
### 2011-2012 Assessment Cycle

#### Assessment Plan

**Outcomes and Measures**

**MA/MS in Biology**

**1: Professional communication proficiencies**

**Measure:** Publication in peer-reviewed journals

- **Details/Description:** Count the number of publications by M.S. students.
  
  We will assess this outcome using self-reports from students and their advisors and searching literature databases for current and former students.

- **Target:** We will collect baseline data this cycle which will be used to set targets for future cycles.

- **Implementation Plan (timeline):** Spring 2012

- **Responsible Individual(s):** Department Chair

#### Assessment Findings

**Finding per Measure**

**MA/MS in Biology**

**1: Professional communication proficiencies**

**Measure:** Publication in peer-reviewed journals

- **Details/Description:** Count the number of publications by M.S. students.
  
  We will assess this outcome using self-reports from students and their advisors and searching literature databases for current and former students.

- **Target:** We will collect baseline data this cycle which will be used to set targets for future cycles.

- **Implementation Plan (timeline):** Spring 2012

- **Responsible Individual(s):** Department Chair

**Summary of Findings:** Students included in the assessment were students who graduated from Summer 2009 to Fall 2011. Non-thesis M.S. students were excluded because they have no research expectation and hence are unlikely to publish. The database ISI Web of Knowledge and faculty reports were used to identify publications. Publications included only peer-reviewed works, those...
published by
April 2012, and those that reported results obtained at ISU.
Of the 13 M.S. students graduating over the study period, seven (54%) had published a median of 1 paper.

**Results:** Target Achievement: Met

**Recommendations:**

**Reflections/Notes:** The publication rates of recent graduates of the Biology M.S. program seems quite good.

**Substantiating Evidence:**


---

**Overall Recommendations**

*No text specified*

**Overall Reflection**

*No text specified*

---

**Action Plan**

**Actions**

**MA/MS in Biology**

**MA/MS in Biology**

**5: Mastery of Skills**

Students achieve mastery of the skills (including using appropriate tools) required in their discipline or profession

- **Action:** Continue to monitor

  **This Action is associated with the following Findings**
  No supporting Findings have been linked to this Action.

  **Action Details:** The Biology Department should continue the mentoring strategies it uses, which seem to be training students well to publish papers in peer-reviewed journals. There does not seem to be a need to modify the curriculum or practices, given the rate of success of students in publishing.

  **Implementation Plan (timeline):**

  **Key/Responsible Personnel:**

  **Measures:**

  **Resource Allocations:**

  **Priority:** Low

---

**Status Report**

**Action Statuses**
MA/MS in Biology

5: Mastery of Skills
Students achieve mastery of the skills (including using appropriate tools) required in their discipline or profession

- **Action:** Continue to monitor

**Action Details:** The Biology Department should continue the mentoring strategies it uses, which seem to be training students well to publish papers in peer-reviewed journals. There does not seem to be a need to modify the curriculum or practices, given the rate of success of students in publishing.

**Implementation Plan (timeline):**

**Key/Responsible Personnel:**

**Measures:**

**Resource Allocations:**

**Priority:** Low

---

**Status** for Continue to monitor

*No Status Added*

---

**Status Summary**

*No text specified*

---

**Summary of Next Steps**

*No text specified*
## Assessment Plan

### Outcomes and Measures

<table>
<thead>
<tr>
<th>MA/MS in Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MA/MS in Biology</strong></td>
</tr>
<tr>
<td><strong>5: Mastery of Skills</strong></td>
</tr>
<tr>
<td>Students achieve mastery of the skills (including using appropriate tools) required in their discipline or profession</td>
</tr>
</tbody>
</table>

#### Measure: Number of presentations

**Indirect - Other**

Details/Description: Determine the number of presentations made by graduate students at professional meetings each year for the last three years.

**Target:**

**Implementation Plan (timeline):** Spring 2013

**Responsible Individual(s):** Department Chair

#### Measure: Student performance on oral presentations

**Direct - Student Artifact**

Details/Description: Evaluate student presentations in BIO 640 – Seminar: Graduate Student Research

Develop a rubric to evaluate student performance on oral and poster presentations produced in these classes.

Have faculty teaching the course apply the rubric to student artifacts.

Analyze scores generated by application of rubric to student artifacts.

**Target:**

**Implementation Plan (timeline):** 2012-13

**Responsible Individual(s):** faculty teaching BIO 640 and department chair

## Assessment Findings

### Finding per Measure

<table>
<thead>
<tr>
<th>MA/MS in Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MA/MS in Biology</strong></td>
</tr>
<tr>
<td><strong>5: Mastery of Skills</strong></td>
</tr>
<tr>
<td>Students achieve mastery of the skills (including using appropriate tools) required in their discipline or profession</td>
</tr>
</tbody>
</table>

#### Measure: Number of presentations

**Indirect - Other**

Details/Description: Determine the number of presentations made by graduate students at professional meetings each year for the last three years.

**Target:**


**Implementation Plan (timeline):** Spring 2013  
**Responsible Individual(s):** Department Chair

---

**Findings for Number of presentations**

*No Findings Added*

---

**Measure:** Student performance on oral presentations  
**Direct - Student Artifact**

**Details/Description:** Evaluate student presentations in BIO 640 – Seminar: Graduate Student Research  
Develop a rubric to evaluate student performance on oral and poster presentations produced in these classes.  
Have faculty teaching the course apply the rubric to student artifacts.  
Analyze scores generated by application of rubric to student artifacts.  

**Target:**  
**Implementation Plan (timeline):** 2012-13  
**Responsible Individual(s):** faculty teaching BIO 640 and department chair

---

**Findings for Student performance on oral presentations**

*No Findings Added*

---

**Overall Recommendations**

*No text specified*

---

**Overall Reflection**

*No text specified*

---

**Action Plan**

---

**Status Report**
2013-2014 Assessment Cycle

Assessment Plan

Assessment Findings

Action Plan

Status Report
2014-2015 Assessment Cycle

Assessment Plan

Assessment Findings

Action Plan

Status Report
2015-2016 Assessment Cycle

- Assessment Plan
- Assessment Findings
- Action Plan
- Status Report
2016-2017 Assessment Cycle

Assessment Plan

Assessment Findings

Action Plan

Status Report
2017-2018 Assessment Cycle

- Assessment Plan
- Assessment Findings
- Action Plan
- Status Report
2018-2019 Assessment Cycle

- Assessment Plan
- Assessment Findings
- Action Plan
- Status Report
2019-2020 Assessment Cycle

- Assessment Plan
- Assessment Findings
- Action Plan
- Status Report
Appendix

A. MA/MS in Biology (Curriculum Map)