

Program Outcomes Assessment

MA/MS in Biology

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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

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

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
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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.)

 **Archive**

2011-2012 Assessment Cycle

Assessment Plan

Outcomes and Measures

MA/MS in Biology

MA/MS in Biology

1: Professional communication proficiencies

Students demonstrate professional communication proficiencies

▼ **Measure:** Publication in peer-reviewed journals
Indirect - Other

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

MA/MS in Biology

1: Professional communication proficiencies

Students demonstrate professional communication proficiencies

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Indirect - Other

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

Findings for Publication in peer-reviewed journals

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:

 Biology Assessment Report 2011-12.pdf (Adobe Acrobat Document) (See appendix)

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

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

2012-2013 Assessment Cycle

Assessment Plan

Outcomes and Measures

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

▼ **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

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

▼ **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

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- A. **MA/MS in Biology** (Curriculum Map)
 - B. **Biology Assessment Report 2011-12.pdf** (Adobe Acrobat Document)
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