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<td>Assessment Plan</td>
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</table>
General Information (Program Outcomes Assessment)

File Attachments:

1. Mathematics (See appendix)
   Mathematics Assessment Strategy
Standing Requirements

Mission Statement

The mission of the program is to prepare its graduates for work in mathematics-related employment and for further studies in the mathematical sciences and related areas.

Outcomes Library

MA/MS in Mathematics Outcome Set

1. Students will learn to use and construct mathematical proofs.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Students will construct direct proofs.</td>
<td>No Mapping</td>
</tr>
<tr>
<td>1.2 Students will construct proofs by contradiction.</td>
<td>No Mapping</td>
</tr>
<tr>
<td>1.3 Students will construct proofs by induction.</td>
<td>No Mapping</td>
</tr>
<tr>
<td>1.4 Students will construct examples and counterexamples.</td>
<td>No Mapping</td>
</tr>
</tbody>
</table>

2. Students will communicate mathematics effectively.

<table>
<thead>
<tr>
<th>Outcome</th>
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<tbody>
<tr>
<td>2.1 Students will state mathematical results accurately for a research problem.</td>
<td>No Mapping</td>
</tr>
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<td>2.2 Students will conduct an independent investigation of their problem.</td>
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<td>2.3 Students will make an oral presentation of their research report that is accessible to their peers.</td>
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</tr>
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<td>2.4 Students will make a detailed written report of their research.</td>
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3. Students will demonstrate that they are ready to use their mathematical skills in a post-master’s position.

<table>
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<tr>
<th>Outcome</th>
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<tbody>
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<td>3.1 Students will be polled after graduation to determine whether they planned to pursue further studies, had an offer of employment, etc.</td>
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<td>3.2 Students will demonstrate mastery of mathematics and related content that will allow them to pursue careers utilizing their knowledge.</td>
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</tbody>
</table>
Curriculum Map

Active Curriculum Maps

MA/MS in Mathematics (See appendix)
Alignment Set: MA/MS in Mathematics Outcome Set
Created: 10/15/2013 9:25:17 am CST
Last Modified: 10/17/2013 10:17:26 am CST

Communication of Outcomes

Students and other stakeholders will be informed about the program's intended learning outcomes via the departmental web site.
Archive (This area is to be used for archiving pre-TaskStream assessment data and for current documents.)
## MA/MS in Mathematics Outcome Set

### 1. Students will learn to use and construct mathematical proofs.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Measure</th>
<th>Details/Description</th>
<th>Target</th>
<th>Implementation Plan (timeline)</th>
<th>Responsible Individual(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Students will construct direct proofs.</td>
<td>Homework/Quiz/Exam problem</td>
<td>Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam</td>
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Implementation Plan (timeline): 2013-14 and every 3 years thereafter
Responsible Individual(s):

Assessment Findings

Finding per Measure

MA/MS in Mathematics Outcome Set

1. Students will learn to use and construct mathematical proofs.

1.1 Students will construct direct proofs.

Measure: Homework/Quiz/Exam problem
Direct - Other

Details/Description: Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
Implementation Plan (timeline): 2013-14 and every 3 years thereafter
Responsible Individual(s):

Findings for Homework/Quiz/Exam problem
No Findings Added

1.2 Students will construct proofs by contradiction.

Measure: Homework/Quiz/Exam problem
Direct - Other

Details/Description: Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
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Findings for Homework/Quiz/Exam problem
No Findings Added

1.3 Students will construct proofs by induction.

Measure: Homework/Quiz/Exam problem
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Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
Implementation Plan (timeline): 2013-14 and every 3 years thereafter
Responsible Individual(s):
### Findings for Homework/Quiz/Exam problem

**No Findings Added**

<table>
<thead>
<tr>
<th>1.4 Students will construct examples and counterexamples.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong> Homework/Quiz/Exam problem</td>
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<td>Direct - Other</td>
</tr>
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<td><strong>Details/Description:</strong> Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam</td>
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<td><strong>Implementation Plan (timeline):</strong> 2013-14 and every 3 years thereafter</td>
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<td><strong>Responsible Individual(s):</strong></td>
</tr>
</tbody>
</table>

**Findings for Homework/Quiz/Exam problem**

**No Findings Added**

### Overall Recommendations

**No text specified**

### Overall Reflection

**No text specified**

### Action Plan

### Status Report
## 2014-2015 Assessment Cycle

### Assessment Plan

#### Outcomes and Measures

<table>
<thead>
<tr>
<th>MA/MS in Mathematics Outcome Set</th>
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**Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter  
**Responsible Individual(s):** |
**2. Students will communicate mathematics effectively.**

<table>
<thead>
<tr>
<th>2.1 Students will state mathematical results accurately for a research problem.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong> Interview with professor</td>
</tr>
<tr>
<td>Direct - Other</td>
</tr>
</tbody>
</table>

Details/Description: MATH 695 and 699—student interview with the course professor. Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations. 


Responsible Individual(s):

<table>
<thead>
<tr>
<th>2.2 Students will conduct an independent investigation of their problem.</th>
</tr>
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<tbody>
<tr>
<td><strong>Measure:</strong> Interview with professor</td>
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Details/Description: MATH 695 and 699—student interview with the course professor. Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations. 


Responsible Individual(s):

<table>
<thead>
<tr>
<th>2.3 Students will make an oral presentation of their research report that is accessible to their peers.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong> Oral presentation</td>
</tr>
<tr>
<td>Direct - Other</td>
</tr>
</tbody>
</table>

Details/Description: Math 695 and 699—oral presentation. Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations. 


Responsible Individual(s):

<table>
<thead>
<tr>
<th>2.4 Students will make a detailed written report of their research.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong> Written report or thesis</td>
</tr>
<tr>
<td>Direct - Student Artifact</td>
</tr>
</tbody>
</table>

Details/Description: Math 695 and 699—written report or thesis. Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations. 


Responsible Individual(s):

**3. Students will demonstrate that they are ready to use their mathematical skills in a post-master’s position.**

<table>
<thead>
<tr>
<th>3.1 Students will be polled after graduation to determine whether they planned to pursue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong> Interview by department chair</td>
</tr>
<tr>
<td>Indirect - Interview</td>
</tr>
</tbody>
</table>

Details/Description: MATH 695 and 699—student interview with the course professor. Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations. 


Responsible Individual(s):
**further studies, had an offer of employment, etc.**

<table>
<thead>
<tr>
<th>Details/Description:</th>
<th>Students will be interviewed by the department chair or the chair’s representative.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target:</strong></td>
<td>80% of the students completing the seminar will meet expectations (be happy with their placement) or exceed expectations (be very happy with their placement)</td>
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<tr>
<td><strong>Implementation Plan (timeline):</strong></td>
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<tr>
<td><strong>Responsible Individual(s):</strong></td>
<td></td>
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</tbody>
</table>

### 3.2 Students will demonstrate mastery of mathematics and related content that will allow them to pursue careers utilizing their knowledge.

<table>
<thead>
<tr>
<th><strong>Measure:</strong></th>
<th>GPA</th>
</tr>
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<tbody>
<tr>
<td><strong>Details/Description:</strong></td>
<td>grade point average in mathematics and related coursework</td>
</tr>
<tr>
<td><strong>Target:</strong></td>
<td>80% of the graduating students will meet expectations (at least 3.25 but less than 3.75) or exceed expectations (at least 3.75)</td>
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<td><strong>Implementation Plan (timeline):</strong></td>
<td>2014-15 and every year thereafter</td>
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<tr>
<td><strong>Responsible Individual(s):</strong></td>
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**Assessment Findings**

**Finding per Measure**

### MA/MS in Mathematics Outcome Set

#### 1. Students will learn to use and construct mathematical proofs.

<table>
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<tr>
<th>1.1 Students will construct direct proofs.</th>
<th><strong>Measure:</strong> Homework/Quiz/Exam problems</th>
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<tr>
<td><strong>Direct - Other</strong></td>
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| **Details/Description:** | Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam |
| **Target:** | 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations |
| **Implementation Plan (timeline):** | Academic year 2014-2015 and every year thereafter |
| **Responsible Individual(s):** | |

**Findings for Homework/Quiz/Exam problems**

*No Findings Added*

<table>
<thead>
<tr>
<th>1.2 Students will construct proofs by contradiction.</th>
<th><strong>Measure:</strong> Homework/Quiz/Exam problems</th>
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| **Target:** | 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations |
| **Implementation Plan (timeline):** | Academic year 2014-2015 and every year thereafter |
| **Responsible Individual(s):** | |

**Findings for Homework/Quiz/Exam problems**
1.3 Students will construct proofs by induction.

- **Measure:** Homework/Quiz/Exam problems
  Direct - Other

**Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter

**Responsible Individual(s):**

**Findings for Homework/Quiz/Exam problems**

No Findings Added

1.4 Students will construct examples and counterexamples.

- **Measure:** Homework/Quiz/Exam problems
  Direct - Other

**Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter

**Responsible Individual(s):**

**Findings for Homework/Quiz/Exam problems**

No Findings Added

2. Students will communicate mathematics effectively.

2.1 Students will state mathematical results accurately for a research problem.

- **Measure:** Interview with professor
  Direct - Other

**Details/Description:** MATH 695 and 699—student interview with the course professor

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** 2014-15 and every year thereafter

**Responsible Individual(s):**

**Findings for Interview with professor**

No Findings Added

2.2 Students will conduct an independent...
investment of their problem.

Details/Description: MATH 695 and 699—student interview with the course professor
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
Implementation Plan (timeline): 2014-15 and every year thereafter
Responsible Individual(s):

Findings for Interview with professor
No Findings Added

2.3 Students will make an oral presentation of their research report that is accessible to their peers.

Measure: Oral presentation
Direct - Other

Details/Description: Math 695 and 699—oral presentation
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
Implementation Plan (timeline): 2014-15 and every year thereafter
Responsible Individual(s):

Findings for Oral presentation
No Findings Added

2.4 Students will make a detailed written report of their research.

Measure: Written report or thesis
Direct - Student Artifact

Details/Description: Math 695 and 699—written report or thesis
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
Implementation Plan (timeline): 2014-15 and every year thereafter
Responsible Individual(s):

Findings for Written report or thesis
No Findings Added

3. Students will demonstrate that they are ready to use their mathematical skills in a post-master’s position.

3.1 Students will be polled after graduation to determine whether they planned to pursue further studies, had an offer of employment, etc.

Measure: Interview by department chair
Indirect - Interview

Details/Description: Students will be interviewed by the department chair or the chair’s representative.
Target: 80% of the students completing the seminar will meet expectations (be happy with their placement) or exceed expectations (be very happy with their placement)
Implementation Plan (timeline): 2014-15 and every year thereafter
Responsible Individual(s):
3.2 Students will demonstrate mastery of mathematics and related content that will allow them to pursue careers utilizing their knowledge.

**Measure:** GPA

- **Details/Description:** grade point average in mathematics and related coursework
- **Target:** 80% of the graduating students will meet expectations (at least 3.25 but less than 3.75) or exceed expectations (at least 3.75)
- **Implementation Plan (timeline):** 2014-15 and every year thereafter
- **Responsible Individual(s):**

**Findings for GPA**

- No Findings Added

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**Overall Recommendations**

- No text specified

**Overall Reflection**

- No text specified

---

**Action Plan**

**Status Report**
### Assessment Plan

**Outcomes and Measures**

#### MA/MS in Mathematics Outcome Set

**1. Students will learn to use and construct mathematical proofs.**

| 1.1 Students will construct direct proofs. | **Measure:** Homework/Quiz/Exam problems  
Direct - Other |
|------------------------------------------|--------------------------------------------------|
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| 1.2 Students will construct proofs by contradiction. | **Measure:** Homework/Quiz/Exam problems  
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| 1.3 Students will construct proofs by induction. | **Measure:** Homework/Quiz/Exam problems  
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| 1.4 Students will construct examples and counterexamples. | **Measure:** Homework/Quiz/Exam problems  
Direct - Other |
|----------------------------------------------------------|--------------------------------------------------|
| **Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations |
### Program Outcomes Assessment

#### MA/MS in Mathematics

**Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter

**Responsible Individual(s):**

### 2. Students will communicate mathematics effectively.

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**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):** |

### 2.2 Students will conduct an independent investigation of their problem.

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**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):** |

### 2.3 Students will make an oral presentation of their research report that is accessible to their peers.

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| **Measure:** Oral presentation  
**Direct - Other** |
| **Details/Description:** Math 695 and 699—oral presentation  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):** |

### 2.4 Students will make a detailed written report of their research.

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**Direct - Student Artifact** |
| **Details/Description:** Math 695 and 699—written report or thesis  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):** |

### 3. Students will demonstrate that they are ready to use their mathematical skills in a post-master’s position.

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| **Measure:** Post-graduation interview  
**Indirect - Interview** |
| **Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter  
**Responsible Individual(s):** |
further studies, had an offer of employment, etc.

**Details/Description:** Students will be interviewed by the department chair or the chair's representative.

**Target:** 80% of the students completing the seminar will meet expectations (be happy with their placement) or exceed expectations (be very happy with their placement)

**Implementation Plan (timeline):** 2014-15 and every year thereafter

**Responsible Individual(s):**

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<th>3.2 Students will demonstrate mastery of mathematics and related content that will allow them to pursue careers utilizing their knowledge.</th>
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| **Details/Description:** grade point average in mathematics and related coursework

**Target:** 80% of the graduating students will meet expectations (at least 3.25 but less than 3.75) or exceed expectations (at least 3.75)

**Implementation Plan (timeline):** 2014-15 and every year thereafter

**Responsible Individual(s):**

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### Assessment Findings

**Finding per Measure**

#### MA/MS in Mathematics Outcome Set

**1. Students will learn to use and construct mathematical proofs.**

**1.1 Students will construct direct proofs.**

| **Measure:** Homework/Quiz/Exam problems |
| Direct - Other |

**Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter

**Responsible Individual(s):**

**Findings** for Homework/Quiz/Exam problems

*No Findings Added*

**1.2 Students will construct proofs by contradiction.**

| **Measure:** Homework/Quiz/Exam problems |
| Direct - Other |

**Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** Academic year 2014-2015 and every year thereafter

**Responsible Individual(s):**

**Findings** for Homework/Quiz/Exam problems
| 1.3 Students will construct proofs by induction. | **Measure:** Homework/Quiz/Exam problems  
Direct - Other  
Details/Description: Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam  
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
Implementation Plan (timeline): Academic year 2014-2015 and every year thereafter  
Responsible Individual(s):  

No Findings Added  |
|---|---|
| 1.4 Students will construct examples and counterexamples. | **Measure:** Homework/Quiz/Exam problems  
Direct - Other  
Details/Description: Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam  
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
Implementation Plan (timeline): Academic year 2014-2015 and every year thereafter  
Responsible Individual(s):  

No Findings Added  |
| 2. Students will communicate mathematics effectively. | **Measure:** Interview with professor  
Indirect - Interview  
Details/Description: MATH 695 and 699—student interview with the course professor  
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
Implementation Plan (timeline): 2014-15 and every year thereafter  
Responsible Individual(s):  

No Findings Added  |
| 2.1 Students will state mathematical results accurately for a research problem. | **Measure:** Interview with professor  
Indirect - Interview  
Details/Description: MATH 695 and 699—student interview with the course professor  
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
Implementation Plan (timeline): 2014-15 and every year thereafter  
Responsible Individual(s):  

No Findings Added  |
| 2.2 Students will conduct an independent  
Measure: Interview with professor  
Indirect - Interview  
Details/Description: MATH 695 and 699—student interview with the course professor  
Target: 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
Implementation Plan (timeline): 2014-15 and every year thereafter  
Responsible Individual(s):  

No Findings Added  |
### 2.3 Students will make an oral presentation of their research report that is accessible to their peers.

**Measure:** Oral presentation  
Direct - Other

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<table>
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</table>

No Findings Added

### 2.4 Students will make a detailed written report of their research.

**Measure:** Written report or thesis  
Direct - Student Artifact

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No Findings Added

### 3. Students will demonstrate that they are ready to use their mathematical skills in a post-master’s position.

### 3.1 Students will be polled after graduation to determine whether they planned to pursue further studies, had an offer of employment, etc.

**Measure:** Post-graduation interview  
Indirect - Interview

<table>
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<th>Details/Description:</th>
<th>Students will be interviewed by the department chair or the chair’s representative.</th>
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<td><strong>Target:</strong></td>
<td>80% of the students completing the seminar will meet expectations (be happy with their placement) or exceed expectations (be very happy with their placement)</td>
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3.2 Students will demonstrate mastery of mathematics and related content that will allow them to pursue careers utilizing their knowledge.

**Measure:** GPA in mathematics

- **Direct - Other**

**Details/Description:** grade point average in mathematics and related coursework

**Target:** 80% of the graduating students will meet expectations (at least 3.25 but less than 3.75) or exceed expectations (at least 3.75)

**Implementation Plan (timeline):** 2014-15 and ever year thereafter

**Responsible Individual(s):**

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No Findings Added

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**Overall Recommendations**

No text specified

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**Overall Reflection**

No text specified

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**Action Plan**

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**Status Report**
## Assessment Plan

### Outcomes and Measures

#### MA/MS in Mathematics Outcome Set

1. **Students will learn to use and construct mathematical proofs.**

   1.1 **Students will construct direct proofs.**
      - **Measure:** Homework/Quiz/Exam problem
        - **Direct - Other**
        - **Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam
        - **Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
        - **Implementation Plan (timeline):** Every year
        - **Responsible Individual(s):**

   1.2 **Students will construct proofs by contradiction.**
      - **Measure:** Homework/Quiz/Exam problem
        - **Direct - Other**
        - **Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam
        - **Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
        - **Implementation Plan (timeline):** Every year
        - **Responsible Individual(s):**

   1.3 **Students will construct proofs by induction.**
      - **Measure:** Homework/Quiz/Exam problem
        - **Direct - Other**
        - **Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam
        - **Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
        - **Implementation Plan (timeline):** Every year
        - **Responsible Individual(s):**

   1.4 **Students will construct examples and counterexamples.**
      - **Measure:** Homework/Quiz/Exam problem
        - **Direct - Other**
        - **Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam
        - **Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations
# Program Outcomes Assessment

## MA/MS in Mathematics

**Implementation Plan (timeline):** Every year  
**Responsible Individual(s):**

## 2. Students will communicate mathematics effectively.

### 2.1 Students will state mathematical results accurately for a research problem.

**Measure:** Interview with professor  
**Indirect - Interview**

**Details/Description:** MATH 695 and 699—student interview with the course professor  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):**

### 2.2 Students will conduct an independent investigation of their problem.

**Measure:** Interview with professor  
**Indirect - Interview**

**Details/Description:** MATH 695 and 699—student interview with the course professor  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):**

### 2.3 Students will make an oral presentation of their research report that is accessible to their peers.

**Measure:** Oral presentation  
**Direct - Other**

**Details/Description:** Math 695 and 699—oral presentation  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):**

### 2.4 Students will make a detailed written report of their research.

**Measure:** Written report or thesis  
**Direct - Student Artifact**

**Details/Description:** Math 695 and 699—written report or thesis  
**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations  
**Implementation Plan (timeline):** 2014-15 and every year thereafter  
**Responsible Individual(s):**

## 3. Students will demonstrate that they are ready to use their mathematical skills in a post-master’s position.

### 3.1 Students will be polled after graduation to determine whether they planned to pursue

**Measure:** Interview by department chair  
**Indirect - Interview**
further studies, had an offer of employment, etc.

**Details/Description:** Students will be interviewed by the department chair or the chair's representative.

**Target:** 80% of the students completing the seminar will meet expectations (be happy with their placement) or exceed expectations (be very happy with their placement)

**Implementation Plan (timeline):** 2014-15 and every year thereafter

**Responsible Individual(s):**

### 3.2 Students will demonstrate mastery of mathematics and related content that will allow them to pursue careers utilizing their knowledge.

**Measure:** GPA

**Details/Description:** grade point average in mathematics and related coursework

**Target:** 80% of the graduating students will meet expectations (at least 3.25 but less than 3.75) or exceed expectations (at least 3.75)

**Implementation Plan (timeline):** 2014-15 and every year thereafter

**Responsible Individual(s):**

## Assessment Findings

### Finding per Measure

**MA/MS in Mathematics Outcome Set**

### 1. Students will learn to use and construct mathematical proofs.

#### 1.1 Students will construct direct proofs.

**Measure:** Homework/Quiz/Exam problem

**Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** Every year

**Responsible Individual(s):**

**Findings** for Homework/Quiz/Exam problem

No Findings Added

#### 1.2 Students will construct proofs by contradiction.

**Measure:** Homework/Quiz/Exam problem

**Details/Description:** Core courses (MATH 515, 526, 530, 531, 537, 612, 640, and 646)—problem on Homework or Quiz or Exam

**Target:** 80% of the students completing the course will be assessed by the course professor as meeting or exceeding expectations

**Implementation Plan (timeline):** Every year

**Responsible Individual(s):**

**Findings** for Homework/Quiz/Exam problem
### 1.3 Students will construct proofs by induction.

**Measure:** Homework/Quiz/Exam problem  
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**Responsible Individual(s):**

**Findings** for Homework/Quiz/Exam problem  
No Findings Added

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**Responsible Individual(s):**

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**Details/Description:** Students will be interviewed by the department chair or the chair’s representative.  
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Measure: GPA

Details/Description: grade point average in mathematics and related coursework

Target: 80% of the graduating students will meet expectations (at least 3.25 but less than 3.75) or exceed expectations (at least 3.75)

Implementation Plan (timeline): 2014-15 and every year thereafter

Responsible Individual(s):

Findings for GPA

No Findings Added

Overall Recommendations

No text specified

Overall Reflection

No text specified
2017-2018 Assessment Cycle

Assessment Plan

Assessment Findings
2018-2019 Assessment Cycle

Assessment Plan

Assessment Findings
2019-2020 Assessment Cycle

Assessment Plan

Assessment Findings
Appendix

A. Mathematics (Adobe Acrobat Document)
B. MA/MS in Mathematics (Curriculum Map)