

# Assessment: Assessment Plan

## Degree Program - AS - Statistics (MS)

**CIP Code:** 27.0501.00

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**Program Purpose Statement:** An M.S. degree in statistics consists of 36 hours of graduate work including 3 hours of credit for a departmental report or 6 hours of credit for the master's thesis. Up to 3 hours of graduate work are permitted in other areas such as agriculture, biology, business, economics, engineering, psychology, sociology, or fields as approved by the graduate advisor.

**Modality:** Face-to-Face

### Student Learning Outcome: Analysis

Students will solve problems and write proofs using the theory of metric spaces,  $L_p$  spaces, and measures.

**Outcome Status:** Active

**Outcome Type:** Student Learning

**Start Date:** 09/01/2016

#### Assessment Methods

**Exam -** The students' abilities to solve problems using metric spaces will be assessed using embedded questions on the final exam in Math 5319. One or more problems on the final exam will be graded using the following rubric:

4 points: The solution is complete and correct.

3 points: The solution is missing a minor element or is incorrect in a minor point.

2 points: The solution is missing a major element or is incorrect in one major point.

1 point: The solution is missing more than one major element or is incorrect in more than one major point. (Active)

**Criterion:** The average score will be at least 2.5.

**Schedule:** Begin Fall 2016.

**Exam -** The students' abilities to solve problems using measures and  $L_p$  spaces will be assessed using embedded questions on the final exam in Math 5323. One or more problems on the final exam will be graded using the following rubric:

4 points: The solution is complete and correct.

3 points: The solution is missing a minor element or is incorrect in a minor point.

2 points: The solution is missing a major element or is incorrect in one major point.

1 point: The solution is missing more than one major element or is incorrect in more than one major point. (Active)

**Criterion:** The average score will be at least 2.5.

**Schedule:** Begin Fall 2016.

### Student Learning Outcome: Algebra and Topology

Students will solve problems and write proofs in algebra and topology.

**Outcome Status:** Active

**Outcome Type:** Student Learning

**Start Date:** 09/01/2016

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## Assessment Methods

**Exam** - The students' abilities to solve problems using algebra will be assessed using embedded questions on the final exam in Math 5317. One or more problems on the final exam will be graded using the following rubric:

4 points: The solution is complete and correct.

3 points: The solution is missing a minor element or is incorrect in a minor point.

2 points: The solution is missing a major element or is incorrect in one major point.

1 point: The solution is missing more than one major element or is incorrect in more than one major point. (Active)

**Criterion:** The average score will be at least 2.5.

**Schedule:** Begin Fall 2016.

**Exam** - The students' abilities to solve problems using topology will be assessed using embedded questions on the final exam in Math 5315. One or more problems on the final exam will be graded using the following rubric:

4 points: The solution is complete and correct.

3 points: The solution is missing a minor element or is incorrect in a minor point.

2 points: The solution is missing a major element or is incorrect in one major point.

1 point: The solution is missing more than one major element or is incorrect in more than one major point. (Active)

**Criterion:** The average score will be at least 2.5.

**Schedule:** Begin Fall 2016.

## Student Learning Outcome: Modeling

Students will solve problems and write proofs using statistical and numerical models

**Outcome Status:** Active

**Outcome Type:** Student Learning

**Start Date:** 09/01/2016

## Assessment Methods

**Exam** - The students' abilities to solve problems using statistical models will be assessed using embedded questions on the final exam in STAT 5329. One or more problems on the final exam will be graded using the following rubric:

4 points: The solution is complete and correct.

3 points: The solution is missing a minor element or is incorrect in a minor point.

2 points: The solution is missing a major element or is incorrect in one major point.

1 point: The solution is missing more than one major element or is incorrect in more than one major point. (Active)

**Criterion:** The average score will be at least 2.5.

**Schedule:** Begin Fall 2016.

**Exam** - The students' abilities to solve problems using numerical models will be assessed using embedded questions on the final exam in Math 5335. One or more problems on the final exam will be graded using the following rubric:

4 points: The solution is complete and correct.

3 points: The solution is missing a minor element or is incorrect in a minor point.

2 points: The solution is missing a major element or is incorrect in one major point.

1 point: The solution is missing more than one major element or is incorrect in more than one major point. (Active)

**Criterion:** The average score will be at least 2.5.

**Schedule:** Begin Fall 2016.