Degree Program Assessment Plan

Degree Program - AS - Mathematics (PHD)

CIP Code: 27.0101.00
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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

Assessment Methods

Exam - The students' abilities to solve problems using algebra will be assessed using embedded questions on the final exam in Math 5327. 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 5325. 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
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**Student Learning Outcome: Real and Complex Analysis**

Students will solve problems and write proofs using real analysis and complex analysis.

**Outcome Status:** Active  
**Outcome Type:** Student Learning  
**Start Date:** 09/01/2016

**Assessment Methods**

**Exam** - The students' abilities to solve problems using real analysis 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.

**Exam** - The students' abilities to solve problems using complex analysis will be assessed using embedded questions on the final exam in Math 5321. 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.