Degree Program Assessment Plan

Degree Program - AS - Mathematics (BS)

Disciplinary Accrediting Body: N/A
CIP Code: 27.0101.00
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Program Purpose Statement: This degree in mathematics places an emphasis on scientific training in order to prepare students to enter a post baccalaureate degree program, to teach high school mathematics, or to work in private sector or government careers that require logical reasoning and problem solving skills.

Student Learning Outcome: Proof Writing

Students will write clear correct proofs of results from algebra and analysis

Outcome Status: Active
Outcome Type: Student Learning
Start Date: 06/15/2015

Assessment Methods

**Exam** - The students' abilities to write proofs of algebra results will be assessed using embedded questions on the final exam for regular long-semester sections of Math 3360. One or more proofs written as part of the final exam will be graded using the following rubric:

4 points: The proof is complete, clear, and correct.
3 points: The proof is missing a minor element or the argument lacks clarity.
2 points: The proof is missing a major element or the argument is incorrect in one major point.
1 point: The proof is missing more than one major element or the argument is incorrect in more than one major point. (Active)

Criterion: The average score using this rubric will be at least 2.5.

Schedule: Begin Fall 2016

**Exam** - The students' abilities to write proofs of analysis results will be assessed using embedded questions on the final exam for regular long-semester sections of Math 4350. One or more proofs written as part of the final exam will be graded using the following rubric:

4 points: The proof is complete, clear, and correct.
3 points: The proof is missing a minor element or the argument lacks clarity.
2 points: The proof is missing a major element or the argument is incorrect in one major point.
1 point: The proof is missing more than one major element or the argument is incorrect in more than one major point. (Active)

Criterion: The average score using this rubric will be at least 2.5.

Schedule: Begin Fall 2016
Student Learning Outcome: Differential and Integral Calculus

Students will demonstrate the ability to solve problems using differential and integral calculus

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

Assessment Methods

**Exam** - The students' abilities to solve problems using integral calculus will be assessed using embedded questions on the final exam for regular long-semester sections of Math 1452. 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 using this rubric will be at least 2.5.

**Schedule:** Begin Fall 2016

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Student Learning Outcome: Linear Algebra and Differential Equations

Students will solve problems using linear algebra and differential equations

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

Assessment Methods

**Exam** - The students' abilities to solve problems using differential calculus will be assessed using embedded questions on the final exam for regular long-semester sections of Math 1451. 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 using this rubric will be at least 2.5.

**Schedule:** Begin Fall 2016
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**Schedule:** Begin Fall 2016

| Exam | The students' abilities to solve differential equations will be assessed using embedded questions on the final exam for regular long-semester sections of Math 3354. 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 using this rubric will be at least 2.5.

**Schedule:** Begin Fall 2016