Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Understanding mathematical theory and methodology
Graduate students will acquire an advanced understanding of concepts in areas related to their thesis research and/or area of specialty. Meanwhile, the student should be able to apply the presented theory and methodology to solve related practical problems.

Related Measures

M 1: Thesis/Exam
Students who choose to write a thesis must also give an oral presentation. The theses will be assessed based on originality, rigor and the oral as well as the written presentation. The rubric for assessment is as follows: pass- 80% or above, marginal- 65% to 79%, fail- below 65%. Students who choose the non-thesis option must give a satisfactory performance on a comprehensive written examination that covers three courses given by the mathematics department for graduate credit. The examination consists of two or three questions from each of the three courses.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
For thesis a majority vote of the committee consisting of graduate faculty members will find the work scientifically sound, noteworthy, and well-presented in oral and written formats. Our objective is that every student will pass the thesis and presentation at the first attempt. In scoring the thesis, none of the three categories may be a "fail" and the average of the three must be at least 75%. For non-thesis a committee consisting of graduate faculty members will make and grade a comprehensive examination that covers three different courses in the student's focus area of study. Our objective is for students to reach 70% for each question.

SLO 2: Presentation ability
Graduate students will be able to construct and effectively present mathematics information and concepts visually and verbally through oral presentations.

Related Measures

M 2: Oral presentation
50% of the graduate level courses will require students to submit at least one oral presentation on a topic relevant to the course. Every student in a class that has presentations is required to carry out a project, write a report and present their work. The project and presentation are part of the final grade.

Source of Evidence: Presentation, either individual or group

Target:
80% of the students will achieve a B or better grade on their presentations using a grading rubric developed by the mathematics faculty.

SLO 3: Expository ability in mathematics
Graduate students will be able to explain mathematical concepts in technical writing to demonstrate their understanding of advanced concepts in areas related to their thesis research and/or area of specialty.

Related Measures

M 3: Written report
50% of the graduate level courses will require the students to submit a written report on a research project related to the course. Every student in a class that has a project is required to write a report and present their work. The written report and presentation are part of the final grade.

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
80% of the students will achieve a B or better grade on their oral and written presentations.