



Program Assessment Report (PAR)

Mathematics (MTH) Masters Degree

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ACADEMIC YEAR COVERED BY THIS REPORT: 2020-2021

I. PROGRAM LEARNING OUTCOMES

Graduate students are able to communicate mathematical ideas and arguments. Graduate students are able to solve problems in a broad range of significant mathematics. Graduate students are able to produce and judge the validity of rigorous mathematical arguments.

II. PROCEDURES USED FOR ASSESSMENT

A. Direct Assessment

The Department of Mathematics and Statistics Graduate Committee (DMSGC) selected MTH7310 (Real Analysis I) offered in Fall 2020 for this assessment. MTH7310 (Real Analysis I) gives a comprehensive study of n -dimensional Lebesgue measure and Lebesgue integral, which is indispensable for most areas in mathematics. In consultation with the faculty member teaching the course, the DMSGC determined problem #1 from the final examination to analyze the solutions of all four students from the class. The selected final examination problem made extensive use of the concepts of measurable function and Lipschitz function as well as their properties.

B. Scoring of Student Work

The final exam problem outcomes were evaluated based on a rating scale (0 - 12). The following criteria were used when the faculty member teaching the course and DMSGC evaluated solution. 1. Correctness: Is the solution correct and is the method of solution appropriate? 2. Clarity: Are the steps in the solution clearly presented and relevant to the solution?

C. Indirect Assessment

Course evaluations and classroom and out of classroom communications for indirect assessment.

III. ASSESSMENT RESULTS/INFORMATION:

For 2020-2021 assessment, MTH 7310 (Real Analysis I) offered in Fall 2020 was evaluated. Problem #1 from the final examination was selected.

The selected final examination problem was found to adequately design for meeting the program learning outcomes. All four students taking MTH 7310 under evaluation scored 10, 9, 8, 12 (out of full score 12) on the selected final examination problem. These scores indicated that the students were achieving the program learning outcomes by providing correct or basically correct solutions.

[Analysis]

IV. ACTIONS TO IMPROVE STUDENT LEARNING

The results from this assessment will be reported to math faculty for feedback and discussed in future DMSGC meetings for further student learning.

V. SUPPORTING DOCUMENTS

Additional documentation, when provided, is stored in the internal Academic Program Assessment of Student Learning SharePoint site.