

# ASSESSMENT PLAN NARRATIVE

## Master of Science in Industrial Applied Mathematics

### DEPARTMENT OF MATHEMATICS AND STATISTICS

This document describes the Department of Mathematics and Statistics (DMS) plan for assessing the MS program in Industrial Applied Mathematics (MSIAM).

#### **1. OU Mission Goals**

Among the goals listed in the Oakland University Mission Statement, our assessment activities will focus on Excellence in Graduate Programs, and Research and Scholarship. These goals are central to the mission of the DMS graduate programs.

#### **2. Department Goals**

We will continue to provide excellent graduate programs. The MS in Industrial Applied Mathematics has been in existence for many years. Though the enrollment in the program is small, it provides a unique opportunity for the target audience, and the courses offered are also required for other programs. The primary purpose of the MSIAM program is to prepare students for careers in industry. The program is intended to provide research experiences for our students, as well as experience in the application of mathematical models to solve problems in industry.

We believe the quality of this program is excellent; we intend to keep it this way.

#### **3. Learning Outcomes**

The MSIAM program is designed to accomplish the following student learning outcomes:

- A. Deep knowledge of course material, both theory and application.
- B. Exposure to, and an understanding of, the nature of research in mathematics.
- C. An understanding of how mathematical models and methods are used effectively in industry and government.

#### **4. Methods of Assessment**

The key internal/direct measure of our level of success in attaining the stated learning outcomes is the quality of the required research project report. Successful completion of this project draws on the complete experience of the student in the MSIAM program. External/indirect measures include student exit interviews and follow-up interviews with alumni.

## **5. Assessment Administration**

The DMS Committee on Graduate Programs (a standing committee) will have the responsibility of overseeing and administering the assessment activities. It is chaired by the department's Coordinator for Graduate Programs, who is a continuing member of the DMS Steering Committee (i.e., executive committee). The chair of the department is an ex-officio member of the Graduate Programs Committee.

## **6. Assessment Procedures**

All MSIAM project reports will be evaluated by appropriate DMS faculty members. Student exit interviews will be conducted by members of the Committee on Graduate Programs. Alumni survey data will be collected on a two year cycle. During each academic year, the Committee on Graduate Programs will review the available assessment data along with other relevant information and determine whether any changes to the program are needed. As necessary, the Committee will develop proposals for departmental approval, and in any case the Committee will report to the department on an annual basis.