

Mission, Vision and Goals Statement

Department of Mathematics, Rose-Hulman Institute of Technology

(approved October 29, 2001)

MISSION

To provide every undergraduate student at Rose-Hulman with mathematical experiences and mathematical ideas that will serve as a foundation for careers and further study in engineering, mathematics, and science.

VISION

To be a model for excellence in undergraduate education in mathematics.

GOALS

Student Learning Goals

GOAL - Transition to College

To provide incoming freshmen and transfer students with a smooth transition to college mathematics.

OBJECTIVES for this goal: The mathematics department should

- apprise students of the vigorous expectations of college level mathematics and the available resources to assist in their learning
- counsel students on their mathematical preparation
- appropriately place students into their initial mathematics class
- provide a “safety net” trailer sequence in the lower division mathematics sequence

GOAL - Mathematical Foundations

To provide all undergraduate students at Rose-Hulman with an education in mathematics which will serve as part of a foundation for life-long learning of science, engineering and mathematics.

OBJECTIVES for this goal: All students should

- become competent users of mathematics,
- appreciate mathematics as an intellectual endeavor in its own right,
- become familiar with basic mathematical and statistical thinking and modeling,
- understand the use of mathematics in other disciplines, and become competent at the application of mathematics to these disciplines,

- become effective problem solvers,
- become competent in using the computer as an aid to mathematical modeling and computation, and
- develop communication skills appropriate in a mathematical context.

GOAL - Mathematics Majors

To graduate majors who have become liberally educated and are prepared for a mathematically based career.

OBJECTIVES for this goal: Our majors should be able to

- formulate and solve problems from a mathematical perspective,
- understand the relationship of mathematics to other technical fields and develop competence at the application of mathematics in one or more of these areas,
- use technology effectively in mathematics and the application of mathematics,
- communicate effectively (reading, writing, speaking and listening) to both technical and non-technical audiences, and
- work cooperatively with others.

Departmental Goals

GOAL - Program

To continue to build an excellent undergraduate mathematics program.

OBJECTIVES for this goal: Our department should

- increase the number of students who major or minor in mathematics, and
- continuously improve the program's curriculum.

GOAL - Excellence in Undergraduate Mathematics

To become a nationally recognized model for excellence in undergraduate mathematics both through its teaching as well as engaging in a select number of additional activities which support excellence in undergraduate mathematics.

GOAL - Inter Departmental

To continue to have good relationships with other programs, in particular, coordination of mathematics with other programs.

Faculty Development Goals

GOAL - Teaching

To continue to develop as teachers.

OBJECTIVES for this goal: The department should:

- encourage faculty to continue to develop courses,

- maintain or improve our regional and national recognition as leaders in curriculum development, and
- support each faculty member's need for professional development funds to enhance teaching skills.

GOAL - Professional Development

To continue to develop professionally.

OBJECTIVES for this goal: The department should:

- maintain or improve our regional and national recognition in professional activities,
- support each faculty member's need for professional development funds to scholarly activity, and
- maintain a suitably sized staff so that all members of the department can have adequate opportunity for professional development.