Summary of Joint Meeting: Mathematics and Statistics, Engineering, Physics, and Computer Science. May 7, 2008

Present:
Mathematics and Statistics: Mike Albertson, Pau Atela, Jim Callahan, David Cohen, Elizabeth Denne, Chris Gole, Ruth Haas (chairing), Jim Henle, Katherine Halvorsen, Mary Murphy, Patricia Sipe.
Engineering: Suzanna Howe, Linda Jones, Donna Riley, Susan Voss.
Physics: Gary Felder, Malgorzata Pfabe, Doreen Weinberger, Joyce Palmer-Fortune.
Computer Science: Judy Franklin, Nick Howe, Ileana Streinu.

The purpose of the meeting was to share information about several areas of common concern and identify priority issues that we might address together. It was clear that those present felt the need for such a meeting, that we face similar pressures and problems. The tenor of the meeting was one of good will and cooperation. At the same time, we recognize that many of our problems are difficult especially in a time of limited resources. The meeting had several positive outcomes:

- The sharing of information was in and of itself valuable.
- We identified ways in which our service courses support courses in other departments, and areas of potential improvement.
- We identified common goals and curricular concerns in intermediate and upper level courses that overlap, rely on, or reinforce one another.
- We formed working groups with representatives of each department to address each of four important areas. (See below.)

1. Staffing issues.

   Each department described its current situation with regard to staffing and enrollments, including some discussion of projections and trends in enrollments. Departments noted the difficulty of basing decisions on a only a couple of years of data where a dip could be mistaken for a trend.

   There was concern about how staffing pressures already affect our curricula and teaching. Departments feel the need to choose between maintaining the integrity of its major and maintaining service courses or interdepartmental efforts. Examples are:

- The format and content of MTH/EGR 204
- Position in Physics intended to develop computational aspects of the curriculum has instead been necessary to maintain existing offerings.
- The large number of services courses in MTH taught by temporary hires, means that we have less control over the content and quality of these courses. These are key courses for majors continuing in science disciplines.

Departments described their discussions with the Administration and CAP about prospects of cuts in faculty position in their departments. We discussed the additional losses to our interdependent curricula that would result from such reductions.

The administration seems to be leaning towards sharing a position between physics and engineering, i.e. a half-FTE reduction for each department. At this meeting, members of both departments said that they felt this would not be an effective use of a faculty line.

2. Courses:
   Departments described existing offerings.
   i. Introductory Calculus (MTH 111, 112, 114)
   ii. Introductory Physics (PHY 115, 117)
   iii. Statistics (MTH 241)
   iv. Introductory Computer Science (CSC 111)
   v. MTH 211/212/221/222/225
   vi. PHY 210/211
   vii. MTH/EGR 204

   Themes in this discussion were prerequisites and preparation of students, needs that departments have from one anothers' service courses, overlap, reinforcement, and coordination of intermediate and upper level courses, goals. Numerical computation and use of software is an important issue.

3. Scheduling:
   There was a brief discussion of the possibilities for coordinating scheduling. Everyone sees that this is a significant problem, and is likely to be intractable. There was much support for a serious effort to study possibilities. We agreed that the Chemistry Department should be included in this effort.

We identified four priorities for further discussion and coordination: Introductory Calculus; Statistics; MTH/EGR 204/PHY 210, 211, and related issues of computation; scheduling. Four working groups were formed, each with representation from all four departments.

Working groups (* is convener):

Coordination of Mth 204, Phy 210/211, mth 211/212
Chris*, Malgorzata, Patricia, Gary, Judy Cardell, Judy Franklin, Mike A, Pau

Intro courses (calc, physics) Patricia*, Joyce, Gary, David, Susan V.

Stats: Katherine*, Glenn Ellis, Donna, Nick Horton

Scheduling: Joyce *, Elizabeth, Linda, Nick Howe