-

Proposal 18-05
(Voting Units: Academic Senators)

CERTIFICATE IN ACTUARIAL SCIENCE
DEPARTMENT OF MATHEMATICAL SCIENCE

1. Description

    The Department of Mathematical Sciences proposes an undergraduate certificate program in Actuarial Science. Students who complete this program, and an undergraduate degree in business, the sciences, or engineering, will be better prepared to pursue employment as an Actuary. Actuaries manage insurance lines, benefit plans, and other situations where expenses are probabilistic. These jobs are extremely desirable, consistently landing on top 5 lists, because of excellent pay, working conditions, and prospects for advancement.

2. Rationale

    These courses are already offered as part of a fast-growing concentration, and offering the certificate program would draw more students into these courses. The certificate would be attractive to mathematically-inclined business students and students in any technical or scientific program.

3. Catalog Copy

    Certificate in Actuarial Science

    The Department of Mathematical Sciences offers a certificate program in Actuarial Science. Students who complete this certificate can pursue employment as an actuary. Typical jobs include setting insurance rates and managing benefits programs. In addition to the required courses, we also recommend that students take courses in Linear Algebra, Statistics, and Numerical Methods.

    Requirements (24 credits)

    MA1160 (4 credits)
    MA2160 or MA2150 (4 credits)
    MA3160 or MA3150 (4 credits)
    MA3810 Introduction to Actuarial Science (3 credits)
    MA3720 Probability (3 credits)

MA4810 Life Contingencies (3 credits)
MA4820 Loss Distribution and Credibility Theory (3 credits)

One of the above courses can be substituted by successfully passing the first professional Actuarial Exam.

4. The certificate requires no new courses.

5. No Additional costs anticipated. The program uses existing courses.

6. The program can be implemented as soon as approved.

Adopted by the PAC (formerly Senate): 9 February 2005
Approved by President Mroz: 21 February 2005