UCONN | COLLEGE OF LIBERAL ARTS AND SCIENCES

COMMITTEE ON CURRICULA AND COURSES

Proposal to Create a Major

Last revised: September 24, 2013

1. Date: March 3, 2014
2. Department or Program: Mathematics
3. Title of Major: Mathematics-Actuarial Science-Finance
4. Effective Date (semester, year): Fall, 2014
(Consult Registrar's change catalog site to determine earliest possible effective date. If a later date is desired, indicate here.)

Catalog Description of Major

Include specific courses and options from which students must choose. Do not include justification here. State number of required credits.

Mathematics

The Mathematics Department offers programs of study in Mathematics, Applied Mathematical Sciences, Actuarial Science (in cooperation with the School of Business), Mathematical Statistics (in cooperation with the Department of Statistics), and Mathematics-Physics (in cooperation with the Department of Physics).

MATH 2010Q, 2011Q, 2194W, 2720W, 2784, 2794W, and 3670W and STAT 3484 and 3494W may not be counted in any of the major groups listed below.

The Department offers both a Bachelor of Science and a Bachelor of Arts degree in Mathematics, Applied Mathematical Sciences, Mathematics-Statistics, Mathematics-Actuarial Science, and Mathematics-Actuarial Science-Finance, and a Bachelor of Science in Mathematics-Physics. The Bachelor of Science program provides in-depth training in Mathematics as preparation for graduate study or for participation in scientific and engineering teams in government, industry, or research laboratories. The Bachelor of Arts degree is designed to provide training in contemporary mathematics without the depth and concentrated specialization required for the Bachelor of Science program. To satisfy the writing in the major and information literacy competencies in the Bachelor of Arts in Mathematics, the Bachelor of Science in Mathematics, the Bachelor of Arts in Applied Mathematical Sciences, and the Bachelor of Science in Applied Mathematical Sciences, all students must pass one of the following courses: MATH 2194W, 2720W, 2794W, or 3796W.

Mathematics-Actuarial Science-Finance

Bachelor of Science or Arts in Mathematics-Actuarial Science-Finance: The requirements for the B.S. or B.A. degree in Mathematics-Actuarial Science-Finance are 36 credits at the 2000-level or above in Mathematics, Statistics, Business, and related areas (in addition to MATH 2110Q or 2130Q or 2143Q) and 15 credits in Finance. The required courses are MATH 2210Q (or 2144Q), 2620, 3160, 3630, 3631, 3650, 3660; STAT 3375Q, 3445, ACCT 2001, FNCE 3302, 4209, 4302, 4305, either MATH 3632 or 3634; either MATH 2610, FNCE 3221 or 4325, and either FNCE 4306 or 4895. Students should include ECON 1201 and 1202, and a Computer Science course in their program of study as early as possible. To satisfy the writing in the Major and Information Literacy competencies, all students must pass one of the following courses: MATH 2194W, 2720W, 2794W, 3670W, or 3796W.

This degree is offered through the College of Liberal Arts and Sciences. Admission to the Actuarial Science program will be available only to students who meet the following two requirements. First, the student must have a total grade point average of 3.2 or higher or a grade point average of 3.2 or higher in mathematics. The student must also satisfy one of the following:

1. completed MATH 1121Q, 1126Q, or 1131Q with a grade of at least B;
2. successfully completed an honors calculus course with a grade of at least C;
3. received AP credit for MATH 1131Q; or
4. received a passing score on one or more of the actuarial examinations.

Students not satisfying one or more of the requirements may be admitted into the program by the Mathematics Department Actuarial Committee.

To remain as an Actuarial Science Major, the student is expected to maintain a total grade point average of 3.2 or higher.

Justification

1. Identify the core concepts and questions considered integral to the discipline:

   This new major combines the technical actuarial skills and knowledge learned through study in the existing Mathematics-Actuarial Science major with Finance courses emphasizing forecasting, security valuation, globally oriented financial management topics, risk management and case studies.

2. Explain how the courses required for the Major cover the core concepts identified in the previous question:

   All of the required courses in the existing Mathematics-Actuarial Science major are required in the new Mathematics-Actuarial Science-Finance major. In addition, students will be required to take two other MATH courses and five FNCE courses in the 3000 and 4000 level which cover forecasting, security valuation, globally oriented financial management topics, risk management and case studies.

3. Dates approved by
   Math Department Curriculum Committee: October 18, 2013
   Math Department Faculty: November 26, 2013
   School of Business Faculty Nov. 14, 2013

4. Name, Phone Number, and e-mail address of principal contact person:
   James Trimble, 860-486-8392, James.Trimble@uconn.edu

Plan of Study

Attach a "Major Plan of Study" to your email submission as a separate document. This form will be used to allow students to check off relevant coursework. It should include the following information at the bottom of the form:

Name of Student: _____

I approve the above program for the (B.A. or B.S.) Major in <insert name>
(signed) _____ Dept. of <insert name>
Major Advisor