Mathematics is one of the oldest and most fundamental intellectual disciplines, studied for its intrinsic interest as well as its far-reaching practical value. It has long been a powerful tool in science and engineering, and now it is finding new uses in the social sciences, the humanities, and the world of commerce and business. Mathematics courses at URI, as well as programs for majors, reflect the many sides of the subject, combining fundamental ideas and methods with an introduction to the diverse applications of mathematics.

Please visit our website, www.math.uri.edu, for more information about all the items discussed in this flyer, or contact the department chair, Professor Nancy Eaton, via e-mail at eaton@math.uri.edu.

Calculus at URI

Students who will be taking intermediate and advanced courses in mathematics at URI usually start their calculus education with MTH 141 or MTH 142. We use a modern approach to calculus, emphasizing the basic concepts and developing a solid sense of what the subject is about, how it is used, and how its ideas and results can be communicated. As part of this approach, students use Maple, a
powerful computer algebra system and other materials we have custom-designed, to complement their text and classroom study. You can view some of these by clicking on links under Features on our web homepage.

Programs for Majors

BACHELOR OF ARTS

Students in the B.A. curriculum may tailor a program to suit their individual needs and interests. They should meet with their advisor no later than the end of the first semester of the sophomore year to plan a complete program. This program, and any subsequent changes in it, must be approved by the advisor and the department chairperson. It must contain at least 32 credits (maximum 45) in mathematics, and include MTH 141, 142, 215, 243, and 316, plus 15 or more additional credits in mathematics, at least three credits of which must be at the 400 level.

Credits earned in MTH *107, 108, 109, 110, 111, 208, or 362, cannot be applied toward this degree.

A total of 120 credits is required in the B.A. curriculum. At least 42 of these must be in courses numbered 300 or above. * Please see "Addendum to 2009–2010 URI Catalog" for an addition or correction to this information.

BACHELOR OF SCIENCE

Students in the B.S. curriculum may elect either the general program or the applied mathematics option. The Office of the Dean must be informed of any substitutions.

General Program. This program stresses basic theories and techniques, and includes an introduction to the principal areas of mathematics. It is recommended for students considering graduate study in mathematics. Students in this program must complete MTH 141, 142, 215, and 243. These courses should normally be taken in the freshman and sophomore years.
Students must complete an additional 30 credits in mathematics, including MTH 316, 425, 435, 436, and 462. Credits earned in MTH *107, 108, 109, 110, 111, 208, 362, or 420 cannot be applied toward this degree. * Please see "Addendum to 2009–2010 URI Catalog" for an addition or correction to this information.

Applied Mathematics Option. This program is intended for the student who anticipates a career as an applied mathematician or mathematical consultant with an organization such as an industrial or engineering firm or with a research laboratory. The student learns the mathematical ideas and techniques most often encountered in such work. Although a theoretical foundation is developed, the applications are emphasized. The student must take MTH 141, 142, 215, and 243, preferably by the end of the sophomore year. The student must complete an additional 18 credits in mathematics including one of the sequences MTH 435, 436 or 437, 438, and nine credits from Group I (Mathematics). Also, the student must complete an additional four courses, one of which must be chosen from CSC 200, 201, 211, 212, PHY 410, or CHE 272, and three other courses chosen from Group II (Applications). At least nine math credits must be at the 400 level or above.

Group I: MTH 244, 316, 322, 418, 441, 442, 447, 451, 452, 462, 471, and 472. Other courses may be used for this group with prior permission of the chairperson.

Group II: * CHE 272, 313, 314; CHM 431, 432; CSC 340, 350, 440, 445; ECN 323, 324; ELE 313, 314, 322, 457; IME * 412, 432, 433; MCE 341, 354, 366, 372, 466; PHY 306, 322, 331, 410, 420, 451; STA 409, 412. Other courses may be used for this group with prior permission of the chairperson. * Please see "Addendum to 2009–2010 URI Catalog" for an addition or correction to this information.

Both B.S. programs require 120 credits for graduation. Please see "Addendum to 2009–2010 URI Catalog" for an addition or correction to this information.
Double Majors

Major programs in mathematics combine naturally with majors in other subjects in arts and sciences to allow students to complete requirements for a major in two fields. The Mathematics Department encourages double majors. Students have combined mathematics with majors in computer science, biology, chemistry, economics, education, philosophy, and physics.

Minor in Mathematics

Students declaring a math minor must earn credit for MTH 141, 142, 215, and 243, and two three-credit math courses chosen from MTH 307, 316, 322, or any 400-level course. At least one of these two courses must be at the 400 level. Substitutions may be made with permission of the chairperson.

Activities for Undergraduates

The Mathematics Department has an active chapter of Pi Mu Epsilon, the mathematics honor society, that runs social/academic events for students in mathematics. We also sponsor and coach a team to compete in the national Putnam Contest in undergraduate mathematics. New members are always welcome!

For further discussion, and many examples of careers in mathematics, follow the Career Opportunities-Links and Resources link under the Undergraduate Program link on our homepage.