



Enclosure 5a5.  
July 16, 2015

**Barbara S. Cottam**  
Chair

June 10, 2015

**Council on Elementary and  
Secondary Education**

To: Council on Postsecondary Education

**Daniel P. McConaghy**  
Chair

From: Commissioner Jim Purcell, Ed.D.

Amy Beretta, Esq.

Subject: Notice from the University of Rhode Island: Changes to BS in  
Mathematics Applied Mathematics Option and Minor in Mathematics

Colleen A. Callahan, Ed.D.

The University of Rhode Island (URI) is announcing its intent to make changes to the  
B.S. in Mathematics Applied Mathematics Option and Minor in Mathematics.

Karin Forbes

1. The University of Rhode Island is proposing the following changes to Applied  
Mathematics Option of the existing Bachelors of Science in Mathematics:
  - The addition of Statistics and Natural Resources Science courses
  - The addition of ECN327 and ECN328
  - The addition of CSC106 to the list of computer science choices including;  
CSC200, 201, 211, 212, PHY410 or CHE272
  - Change CSC350 to CSC450

Jo Eva Gaines

Marta V. Martinez

Lawrence Purtill

Joyce L. Stevos, Ph.D.

**Council on Postsecondary  
Education**

2. The following is the change being proposed to the Minor in Mathematics:
  - The addition of MTH244 to the list of MTH307, 316, 322, or any 400-level  
course

**William Foulkes**  
Chair

Rationale

Michael Bernstein

Applied Mathematics Option (AMO)

Dennis Duffy, Esq.

- Adding in the Statistics and Natural Resources Science courses to the degree  
option would allow students to focus on a statistics track within the Applied  
Mathematics Option (AMO). The Natural Resources Science courses added  
are in Geographic Information Systems.
- URI proposes adding ECN327 (Intermediate Economics: Income and  
Employment) and ECN328 (Intermediate Economics: Pricing and Distribution)  
because the current options of ECN323 and ECN324 are not offered regularly,  
and these classes are important for students pursuing the Pre-Actuarial track  
and Math Financial track within the AMO.
- CSC106 (The Joy of Programming) is being added to provide an option for  
students who do not have any programming experience.
- Changing CSC350 to CSC450 reflects the course number change that the  
computer science department had made previously, but was not updated in  
the catalog.

The Honorable Thomas Izzo

Judy Ouellette

Kerry I. Rafanelli, Esq.

John J. Smith, Jr.

Dr. Jeffery A. Williams

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### Mathematics Minor

- URI is adding MTH244 (Differential Equations) to the list of approved minor choices because many Engineering and Physics majors take this class as a major requirement and the department therefore expects this will make the mathematics minor more attractive to these students.

### Curriculum

The majority of the requirements for both the Applied Mathematics Option of the BS degree and the mathematics minor remain the same, with the course options within each being added. The total credits required remain as 120 credits for the Applied Mathematics Option and 18 credits for the mathematics minor.

### Students

All students interested in the Applied Mathematics Option and the Minor in Mathematics would benefit from these changes by providing more options for completing requirements. These changes should contribute to more Engineering and Physics majors taking on the mathematics minor, and students who were concerned about the programming requirement to consider the Applied Mathematics option (AMO).

### Institutional Role

These are minor revisions to the Applied Mathematics Option and to the Minor Mathematics. These changes are not expected to affect enrollment in other majors. The only expected impact on enrollment is a small positive effect that including a course that is a requirement for physics and engineering majors may have on attracting additional students.

### Interinstitutional Considerations

This will have no impact on other institutions in the state, nor do other public institutions have programs that impact on these programs at URI.

### Employment

The AMO will still produce students who anticipate careers as applied mathematicians or mathematical consultants with an organization such as industrial or engineering firms or with research laboratories. The addition of statistics and Natural Resources Science Geographic Information Systems classes (NRS 409: Concepts in GIS and Remote Sensing and NRS 410: Fundamentals of GIS) will make students more attractive to employers. The mathematics minor will allow students to become significantly more employable by adding the mathematics credential to their resume.

### Staff review

OPC staff reviewed the Notice of Change from the University of Rhode Island announcing its intent to make changes to the B.S. in Mathematics Applied Mathematics Option and to the Minor in Mathematics. The academic changes presented are within the mission, role and scope of the University and do not require Council approval.