

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

**Academic Council
November 16, 2015**

The regular meeting of Academic Council for November 16, 2015, was cancelled, and the two items of business were vetted to members via email for approval.

It was moved by Dr. Klein and seconded by Dr. Lye, that the proposed two new courses MATH 6204 and ENGI 9971 be approved. The motion

CARRIED

1. MATH 6204 Iterative Methods in Numerical Linear Algebra

This new course is to be placed under section 25.18.3., subheading Mathematics, and section 32.25.4, subheading Mathematics, of the University Calendar.

Course Description:

This course is intended for graduate students in Mathematics, Computer Science, and other applied science and engineering disciplines where large linear systems arise in numerical simulations. We will discuss applicability of and fundamental limitations on direct methods, and explore several families of tools that lead to optimal iterative methods, in order for them to use such methods in practical situations.

2. ENGI 9971 Nonlinear and Random Vibrations Analysis

This new course is to be placed under section 13.13.2, subheading 'Other Courses', of the University Calendar.

Course Description:

This course covers nonlinear vibration and random vibration of mechanical systems. In nonlinear vibration part, it will focus on analytical approaches for commonly seen nonlinear vibration problems in mechanical and civil engineering. In random vibration part, it will cover stochastic process, analytic techniques for nonlinear random vibration, such as stochastic linearization and stochastic averaging, will also be discussed. For both parts, comparison between analytic techniques and numerical schemes will be made.

(Postscript Note: On the Request for Approval of a Graduate Course form for this course, section 1.E 'Course Description' stated 36, but this was meant for section 1.E. 'Estimated number of contact hours per semester'.)

Faye Murrin, Chair