MA700 Directed Study

Syllabus

Instructor: Dr. Darien Lauten

Brief Course Description
This course focuses on the 7 – 12 mathematics school curriculum.

Required Course Textbooks and materials
Membership in the “National Council of Teachers of Mathematics” (NCTM). You are required to receive and read the email news briefings, newsletters, and a monthly journal.
http://www.nctm.org/


NHMathEd listserv. I will register you for this electronic list at the e-mail address of your choice.

NCTM. (2000) “Principles and Standards of School Mathematics (PSSM)” Reston, VA: NCTM. You are required to purchase a hard copy of the standards directly from NCTM, if you do not already have one.

Secondary school 8th grade, Algebra I, Geometry, Algebra II, and Precalculus textbooks. I will lend you one of each of these textbooks as needed for the course.

Core curriculum materials developed through NSF funding. These will be on reserve in Regina Library. You will be required to use them in the library.

Email address and access to the internet. You can get a free email address from Information Technology (IT) in Sylvia Trottier Hall. As a Rivier student, email and high-speed internet access are available to you on campus in Regina library and the Sylvia Trottier computer labs.

TI-83+ or comparable graphing calculator.


Attendance and some volunteer work at the NHTM spring conference on Tuesday, March 4, 2003. Appropriate “make-up” will be provided for those who cannot attend because of professional responsibilities. Makeup will most likely involve attendance at another mathematics teacher workshop or conference in New England. Some are on weekends.

Course Goal:
The purpose of this course is to deepen the student’s understanding of the commonly taught and the researched-based American secondary mathematics curricula.

Objectives:
The student will:

Deepen her mathematical understanding of each of the expectations framed in the National Council of Teachers of Mathematics (NCTM) Principles and Standards for School Mathematics
Align the National Science Foundation (NSF) sponsored University of Chicago School Mathematics Project (UCSMP) secondary

Learn criteria and demonstrate an ability to assess the quality of mathematics textbooks and curriculum materials

Attend at least one workshop or conference for secondary school teachers of mathematics in New Hampshire, New England, or the U.S.A.

Develop an understanding of experienced-based and research-based theories of the secondary mathematics curriculum.

Assessment
The student will provide evidence of:

Understanding and mastery of the goals, expectations, and objectives of the UCSMP secondary mathematics curriculum project and the NCTM PSSM and the alignment of the UCSMP curriculum with the Standards and Expectations in the PSSM. Means of assessment: curriculum alignment project.

Knowledge of criteria and ability to assess the quality of mathematics textbooks and curriculum projects. Means of assessment: curriculum evaluation project.

Attendance at least one workshop or conference for secondary mathematics teachers. Means of assessment: written summary of experiences and benefits of workshop or conference attendance.