Course Syllabus: MA 601 Issues in Mathematics Education

Spring, 2005, 3 credits, Room: MEM, Wed: 6:30 – 9:00 PM

Course Instructor: Darien Lauten, Ph.D.
Office Location: Regis 3rd floor (attic of Chapel)  
Office Phone: 897-8602
Office Hours:
Mon.: 2:00 – 2:30 (Mem),
Wed. 2:00 – 2:30, 4:00 - 6:00 (Regis), 6:00 - 6:30 & 9:00 – 9:30
Thurs. 2:00 - 6:30
Other hours by appointment, contact Nola Beane: 897-8571 or macsoffice@rivier.edu

Brief Course Description
Topics included in this course are assessment; legal rights and responsibilities of educators; issues surrounding SPED, Section 504, and ESOL; history of mathematics education in the US; national trends in mathematics education; NCTM Principles and Standards for School Mathematics and the secondary (6 - 12) school mathematics curriculum; history of mathematics education in the US, professional associations and journals; research in mathematics education; communication with parents, colleagues, and administrators; and international comparisons of student achievement in mathematics.

Required Course Textbooks and materials
Organizations:
Unless you already belong, you will need to join the National Council of Teachers of Mathematics (NCTM). Join on the website www.nctm.org. When you join you are asked to select one journal, either Teaching Mathematics in the Middle School or The Mathematics Teacher (high school). Either journal is OK with me.

NHMathEd listserv. You can be placed on the NHMathEd List if you send a message to this address with the word subscribe as the subject to:
NHMathEd-request@listserv.plymouth.edu

If at all possible, you are asked to attend the New Hampshire Teachers of Mathematics Annual Conference on March 14, 2005.

Textbooks:
The following texts, published by NCTM, are required. The bookstore is unable to carry these books because NCTM requires that payment be made up-front. You may order them directly through NCTM or find used copies on Amazon, Ebay, etc. Most students in the past have been able to purchase used books through the internet for prices considerably less than new through NCTM.


Other materials and items
TI 83+, TI-84, or TI84+ graphing calculator. (Texas Instruments = TI)
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.
Course Goal:
The purpose of this course is to deepen students understanding of the common American secondary mathematics curriculum and assessment and the issues surrounding the teaching of mathematics.

Objectives:
Students will have an opportunity to deepen their understanding of legislation pertaining to public education including, but not limited to "No Child Left Behind" and special education.
Students will have opportunities to facilitate group discussions.
Students will develop their ability to write in the style described in the APA Manual of Style.
Students will have increased understanding of the mathematics currently taught in American high schools and how to assess student understanding of the mathematics.
Students will compare traditional algebra and geometry textbooks with new NSF sponsored textbooks.
Students will develop deeper understanding of national, state, and local policy decisions and how they affect students and teachers.
Students will develop their understanding of the history of mathematics education in the US.

Conduct of course:
The graduate-level course will be conducted in a seminar format. Students will be required to join class discussions, contributing worthwhile comments and questions that reflect their assigned readings and previous class discussions. Students are required to assume a leadership role in facilitating at least one class discussion, facilitate the exchange of ideas, actively encourage all class participants to participate in small- and large-group class discussions, seek out opportunities to work directly in small groups with all other class participants; use e-mail and the WWW to access and learn required course material. Students who receive an A in the course are expected to seek out, learn, and contribute to course-related learning of all students. All course-related information must be properly cited using APA style.

Assignments:
You are expected to submit all assigned work on time. If you notify me ahead of time about unexpected professional travel or other unexpected responsibilities, sick children, etc. I will consider exceptions. However, I expect to know what's going on when assignments are not submitted on time.

Assessment
Three lesson plans that incorporate how students will be assessed
Essays, summaries, outlines, or notes on material read or discussed in class (with citation)
Assignments in which you align curriculum materials with the PSSM
Evidence through class discussions of your understanding and mastery of course content and objectives.

Course Requirements and Expectations. You are expected to:
Actively engage in all class discussions and small group work.
Come to class prepared to discuss all assigned readings.
Complete all assignments in a timely manner. More specific details will be available as needed.
Engage in peer and self-assessment.
Assume a leadership role in organizing, facilitating, seeking out information for, and engaging others in class discussions and activities
Maintain a loose-leaf notebook (portfolio) that contains course handouts, your notes, and relevant materials you have collected from the internet (check sources and provide evidence of credibility), news-media, and other reliable sources
Attend all class meetings. Attendance will be taken. If you miss a class, you are responsible for submitting assigned work on the date due, getting the notes from a classmate, and making up all missed work. If you must be excused from class, please inform me ahead,
if possible, by note, e-mail, or phone message. Please arrange ahead for someone to collect handouts for you. Regularly (every few days or so) check your email for messages about the course and access the internet for assignments at specified locations.

**Methods of Assessment and Computation of grades**
The following are tentative percentages. Final percentages will be negotiated with the class.
Lesson plans 30%
Essays, summaries, and other written assignments 30%
Preparation for participation and engagement in and occasional leadership of classroom activities and discussions 40%