MA5901 - Topics in Teaching College Mathematics Syllabus Fall 2005

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Office Hours: Shari – MWR 9:00-10:00; T 10:00-12:00; and by appointment

Allan – MTWR 9:00-10:00; F 8:00-10:00

Course description:

This course is an introduction to college-level teaching principles and practices. Key issues in undergraduate mathematics education are surveyed. These issues include course preparation, assessment, understanding student learning, developing assignments, instructional strategies (lecturing, collaborative learning, discussions, etc.), the use of instructional technologies, motivating students, and the use of institutional resources for student development. The lab component of the course provides an overview of Mathematica and WebCT and gives students an opportunity to work with students in a laboratory setting. Source materials for the course are derived from research in higher education and the writings and opinions of experienced educators.

Course goals: Teaching assistants will:

- Design effective learning modules appropriate to content, student population, and teaching style, based on knowledge of and experience with multiple strategies;
- Reflect on their teaching and articulate their values and beliefs about teaching;
- Develop informed opinions on several key critical issues in higher education;
- Explore teaching challenges you may be experiencing and develop strategies for overcoming those challenges;
- Interact with students in laboratory and classroom settings.

Grades: Your final course grade will be determined according to the following scheme:

• Participation and Attendance 10%

• Classroom Component 60%

Weekly assignments 35%

Preparation, delivery and written critique of teaching segments 25%

• Laboratory Component 30%

Participation: This course will be run as a student-centered discussion. Therefore, your required attendance and active participation during the semester is crucial to your success in the course. Your participation grade will include class attendance, speaking, listening, and performing during in-class activities (including discussion of reading materials, observations, and practice teaching activities), providing support for your classmates, and your behavior as a professional. You will be asked to self-assess your participation at the end of the course, using the attached rubric. Please review this rubric now and throughout the semester to be sure that you are completing all requirements for the grade that you wish to receive.

Weekly assignments: Assignments will be posted in WebCT and will be announced in class. Please note the listed due date and time; no late work will be accepted. Assignment details will be given in class. To access WebCT, go to http://courses.mtu.edu. Your User ID and password are the same as those for your MTU email.

For the Record:

- Attendance is required.
- All cases of academic misconduct will be reported to the Dean of Student Affairs.
- MTU complies with all federal and state laws and regulations regarding discrimination, including the ADA Act of 1990. If you have a disability and a need, a reasonable accommodation for equal access to educations or services can be made through the Dean of Students Office (Gloria Melton 487-2212). For concerns regarding discrimination of any kind, please contact your advisor, department head, or affirmative action office.