SYLLABUS: ELED 540: ELEMENTARY MATHEMATICS: CONTENT & METHODS

Spring, 2014        Scott Davis    Office Hours: to be determined

OBJECTIVES: 1) Mastery of the mathematical content of elementary math through at least sixth grade  2) A substantive understanding the pedagogical challenge of teaching math  3) Acquire a knowledge base in the field of mathematics pedagogy  4) Develop the ability to plan instruction and to reflect upon and evaluate math instruction

TEXTS: Understanding the Math You Teach - Burris

REQUIREMENTS

30% Class attendance, participation, and weekly assignments, including papers
10% Midterm Exam
15% Case Study
25% Final Exam
20% Quizzes

Fifteen hours of field work are required for this course, five hours of which are designated for observation of mathematics lessons in elementary classrooms, and ten hours for a case study.

Failure to complete any assignment by the required due date will result in a lowering of the grade for that assignment by the equivalent of one letter grade.

In order to become proficient in the use of manipulatives for the teaching of elementary students, this course involves considerable lab work. Generally, the class work will not duplicate the text material. Rather, the text material will complement and/or extend the class work. Hence, it is important to take comprehensive notes of the class work, which will draw from many sources in order to make use of the highest level of our present understanding of how mathematics is learned and cognized.
In addition to reading assignments and preparation for class discussion, written assignments and/or quizzes will be given weekly, or as indicated by evolving class learning needs. These will complement and/or extend the class work.

All the material—readings, written assignments, and especially the class work—is important for mastery of the mathematical and pedagogical content.

It is important to remember that learning in a seminar is an emerging process, and that correspondingly, class activities can be expected to evolve over time both as prerequisite and subsequent to readings, and in response to student background, need, and performance. Good teaching and instructional practice require flexibility and adaptation.

Classroom Environment: The faculty and staff of the School of Education and Human Development are committed to serving all enrolled students. The intention is to create an intellectually stimulating, safe, and respectful classroom atmosphere. Students are expected to join in that effort.

Accommodations: If you are a student with a disability and wish to request accommodations, please notify the instructor by the second week of class. You are also encouraged to contact the Office of Services for Students with Disabilities (SSD) at 777-2686. Their office is in LH-B51. The SSD office makes formal recommendations regarding necessary and appropriate accommodations based on specifically diagnosed disabilities. Information regarding disabilities is treated in a confidential manner.

Academic Honesty: this professor subscribes to the strictures regarding academic honesty as defined by Binghamton University and the School of Education.