ELED 530: Mathematics Curriculum for Grades 1 - 8
COURSE SYLLABUS: FALL 2012

Time: Wednesday at 4:30 - 7:10 pm
Instructor: Mario Eraso, Ph.D., Assistant Professor, Department of Curriculum & Instruction
Office Location: Education South 214
Office Hours: 2:30 – 4:30 pm by Appointment at Mesquite Metroplex Center's Library
Office Phone: 903.886.5757
Office Fax: 903.886.5581
University Email Address: mario.eraso@tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

Van de Walle, J.A., Karp K.S. & Bay-Williams, J.M. (2010). Elementary and Middle School Mathematics: Teaching Developmentally (7th Edition), Pearson Education, Inc. REQUIRED

National Council of Teachers of Mathematics. (2000). Principles and Standards for School Mathematics. Reston, VA: NCTM. Available ONLINE with a FREE trial login at: http://standardstrial.nctm.org/triallogin.asp

Texas Essential Knowledge and Skills (TEKS) – Mathematics K-12 available ONLINE at: http://www.tea.state.tx.us/rules/tac/chapter111/index.html

HANDOUTS of articles and other reading assignments.

Course Description:

ELED 530 identifies novel research-based recommendations toward a modernization of both content and methods of elementary mathematics teaching and learning, and relates these innovations to good teaching practices already in use. The course includes the language of number sets, number systems, the means for improving student performance through problem solving, and techniques for identifying areas of student accomplishment and difficulty.

Student Learning Outcomes:

ELED 530 students will have the opportunity to:

- Examine their beliefs about the goals and content of elementary and middle school mathematics in relation to current reform documents.
- Develop their ability to create an environment for the learning and teaching of mathematics that promotes problem solving with understanding and sense making.
- Learn about the content and methods in mathematics education to assist them in designing mathematical tasks and activities.
- Explore the connections that exist within mathematics topics and with other content areas.
- Develop their ability to assess diverse groups of students in particular mathematics topic areas at various grade levels.

COURSE REQUIREMENTS

Instructional / Methods / Activities Assessments

1. Attendance and Participation (10%)
2. Case Analysis of Teaching Methods (10%)
3. Research Article Essay (10%)
4. Activity Design Presentation (10%)
5. Assessment Task Presentation (15%)
6. Homework Assignments (15%)
7. Midterm Exam (15%)
8. Final Exam (15%)

Grading

A = 90% - 100%
B = 80% - 89%
C = 70% - 79%
D = 60% - 69%
F = 59% and below

Student work will be expected to show evidence of creativity and the use of critical thinking skills. Merely restating someone else's work is not adequate for graduate level assignments. If an original work is directly or indirectly quoted, it must be so noted. To do otherwise is plagiarism. Any plagiarism is grounds for a zero on the submitted work, and possibly for failing the course or being expelled from the university.

Remember that you are responsible for your learning. I will help you as much as possible, but you must let me know that you are having problems or questions that you cannot answer. As your instructor, I am available to help you in any way possible. Please feel free to call me at the office phone number provided above.

Written Assignments:

- All written assignments are to be typed and are expected to exhibit professional quality. In all assignments, you should use 12 point size, Arial or Times Roman font, one-inch margins on all four sides of the page, and text should be double spaced.
- You should demonstrate mastery of organizing, structuring, and editing (for all aspects of mechanics) in your writing. Student work is expected to be well-written, logical, and easy to read and follow.
- Excessive errors in grammar, spelling, and vocabulary will result in the reduction of your score by at most a letter grade.
- Assignments are due at the beginning of class.
- Late assignments will not be accepted without my prior approval.

TECHNOLOGY REQUIREMENTS

- Hardware--- Both Macintosh and Windows systems are acceptable
- Software ---Word Processor and Calculations Spreadsheet
- Connectivity---Reliable internet access through an established internet service provider is required for online learning activities. Students should choose a DSL or cable-modem service where high speed internet is available.
- Email---Access to a reliable email service through an established internet service provider is critical for assignment submission and communication with instructor.
- Web Browser---Internet Explorer (version 8.0 or greater) or Netscape (version 9.0 or greater) is required. These browsers are available for free in the download areas at:
  http://www.microsoft.com
  http://www.netscape.com

ACCESS AND NAVIGATION

This course will not be utilizing eCollege.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:
The instructor is available before and after class and other posted office hours. The preferred method of communication is via university email.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:
This is a graduate course of 3 credit hours. Because we will be making presentations and discussing course material in whole class and group formats, attendance to all classes and professional conduct is required.

Attendance:

- According to University policy B19, "Students are expected to be present for all class meetings of any course for which they are enrolled."
- Attendance at all class meetings is required and essential to your success in this course.
- You are expected to attend all classes; be on time; stay until class is dismissed; and be actively engaged in discussions. Your participation will impact your grade.
- Excessive absences will reduce your grade in the course.
- In the event of an emergency and a missed class, you are responsible for obtaining class materials/ assignments/notes from one of your peers. Please notify me if you anticipate an absence.

Professional Conduct:

- You are expected to demonstrate professional behavior in all that you do. This includes, but is not limited to, refraining from outbursts, communicating appropriately, taking responsibility, and demonstrating initiative. Also be courteous to your classmates as they present their lessons and as they are speaking.
- Thoughtful participation in class discussions is expected. This requires reading the assignments and thinking about them before class. It also requires coming to class ready to listen to other students as well as the instructor.

University Specific Procedures:

ADA Statement
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu
Student Disability Resources & Services

Student Conduct
All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (see Code of Student Conduct from Student Guide Handbook).

COURSE OUTLINE / CALENDAR

1	29-Aug	Teaching Mathematics in the Era of NCTM Standards
2	5-Sep	Teaching Mathematics Through Problem Solving
3	12-Sep	Mathematics Learning Assessment and Strategies for Teaching to ELLs
4	19-Sep	Teaching and Learning Mathematics with Technology
5	26-Sep	Developing Early Number Concepts and Meaning for the Operations
6	3-Oct	Prime Factorization and Fundamental Theorem of Arithmetic
7	10-Oct	Mastering Basic Facts
8	17-Oct	**Midterm Exam**
9	24-Oct	Developing Whole-Number Place-Value Concepts
10	31-Oct	Algebraic Thinking
11	7-Nov	Developing Fraction Concepts and Strategies for Computation
12	14-Nov	Developing Concepts for Decimals and Percents
13	21-Nov	Thanksgiving Break
14	28-Nov	Geometric Thinking
15	5-Dec	Proportional Reasoning
16	12-Dec	**Final Exam**