Topics in Math Elementary Teaching II Math 351 Spring 2016

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<u>Office Hours</u> – Thursday 3:30- 6:30, Online- Tuesday and Thursday 8:00 p.m. -10:00 p.m. for Skype and Facetime.

If you can't reach me, leave a message on my voice mail OR better yet, send me an **e-mail:** <u>Vanessa.Huse@tamuc.edu</u>. This is the official email for this course and all students must use it for communications.

Text: MATHEMATICS FOR ELEMENTARY TEACHERS:CONCEPTUAL APPROACH

Author BENNETT Edition/Copyright 9TH 12 Published Date 2012 ISBN 9780073519579

Necessary Materials: A graphing calculator

Course Content:

This course will include content and pedagogy for teaching geometry, probability, statistics, as well as, applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Prerequisite: a "C" or better in Math 350 Mathematics for Elementary Teachers Part 1

Student Learning Outcomes: Students will be able to:

- 1. analyze and solve problems involving one, two and three dimensional objects such as lines, angles, circles, triangles, polygons, cylinders, prisms, and spheres
- 2. analyze the relationship among three dimensional figures and related two dimensional representations and use these representations to solve problems
- 3. apply measurement concepts to derive units and formulas
- 4. use symmetry to describe tesselations and show how they can be used to illustrate concepts, properties and relationships
- 5. investigate and answer questions by collecting, organizing and displaying data from real world situations

- 6. support arguments, make predictions and draw conclusions using summary statistics and graphs to analyze and interpret data
- 7. develop and justify concepts and measures of central tendency and dispersion and use those measures to describe a set of data
- 8. use the concepts and principles of probability to describe the outcome of simple and compound events
- 9. explore concepts of probability through data collection, experiments and simulations

The goal of this course is to develop *understanding* of the mathematics. We are constantly going to be dealing with *WHY* more than *HOW*. We will focus on underlying structures and development of ideas. In addition, problem solving is a major component of this course. As professionals, you need to become familiar with and skilled in various types of problem solving techniques that are commonly used in mathematical thinking.

<u>Make-ups</u>: No make-ups for the Midterm will be given, the final will count 70% of your grade.

<u>Course Grading</u>: Will be based on Research Projects, a Midterm Exam, Homework, Discussion Boards and a Final Exam.

Major Research Projects –	10%
Discussion Boards-	10%
Homework-	10%
Midterm Exam-	35%
Final –	35%

TECHNOLOGY REQUIREMENTS

Internet access (high-speed preferred)

Word processing software (Microsoft Word preferred)

As a student enrolled at Texas A&M University-Commerce, you have access to an email account via myLeo - all my emails sent from eCollege (and all other university emails) will go to this account, so please be sure to check it regularly.

ACCESS AND NAVIGATION

Access and Log in Information

This course will be utilizing eCollege to enhance the learning experience, eCollege is the Learning Management System used by Texas A&M University-Commerce.

You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000.

COMMUNICATION AND SUPPORT

Texas A&M University-Commerce provides students technical support in the use of eCollege. The student help desk may be reached by the following means 24 hours a day, seven days a week. If you experience issues while taking your exams or at any other point, feel free to contact the support desk.

Phone: 1-866-656-5511 (Toll Free) to speak with eCollege Technical Support Representative.

• Email: helpdesk@online.tamuc.org to initiate a support request with eCollege Technical Support Representative.

• **Help:** Click on the '*Help*' button on the toolbar for information regarding working with eCollege

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Attendance

It is the prerogative of the instructor to drop students from courses in which they have accrued excessive absences (three or more). However, a student wishing to drop the course should do so. Failure to do so may result in a failing grade. Attendance is strongly encouraged for your own benefit. Any work missed due to your absence is your responsibility and should be made up as soon as possible. Attendance in an online course will be observed by login into the course. Three weeks without a login will be considered excessive absences.

Cheating: Cheating of any kind will result is an F for the term. All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student's Guide Handbook, Policies and Procedures, Conduct)

Academic Honesty Policy

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

Disciplinary action for these offenses may include any combination of the following:

- 1. Point deduction on an assignment.
- 2. Failure for an assignment.
- 3. A grade of zero for an assignment.
- 4. Failure for the course.
- 5. Referral to the Academic Integrity Committee or department head for further action.
- 6. Referral to the Dean of the College of Education and Human Services, Business and Technology, Arts and Sciences, or Graduate School as appropriate.
- 7. Referral to the University Discipline Committee.
- 8. Communication of student's behavior to the Teacher Certification Office and/or Dean of the College of Education as constituting a reason to bar student from entering into or continuing in a teacher certification program. Procedures, A 13.04, 13.12, 13.31, and 13.32

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

<u>StudentDisabilityServices@tamu-commerce.edu</u> <u>Student Disability Resources & Services</u>

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

COURSE OUTLINE / CALENDAR

The course calendar is in eCollege listed by week. Assignments will be opened on Monday and will not be due until the next Sunday at midnight. Testing for the midterm and final will be face-to-face, which means in person. Tests will be given in Commerce and Corsicana. Dates and times are listed below. If you are a student out of the State, please email me for instructions for testing.

Course Exams:

Midterm

Corsicana – March 1, 4:00 – 6:00

Commerce- March 3, 4:00 - 6:00

Final Exam

Corsicana – May 3, 4:00 – 6:00

Commerce- May 5, 4:00 - 6:00