SMTE 3352.001 Syllabus
Spring 2012

I. COURSE INFORMATION

Course schedule: TR 2:00-3:15 in CS-107
Instructor: Dr. Elaine Young
Office Address: CI-360
Office Phone: 361-825-2819
Email Address: elaine.young@tamucc.edu
Web Address: http://www.sci.tamucc.edu/~eyoung/
Office hours: Tuesdays & Thursdays 12:00-1:45 PM or by appointment

II. COURSE DESCRIPTION

This course is the third in a sequence exploring elementary mathematics with deeper understanding, connections, and communication. Formal and informal geometry concepts and skills will be developed through problem-solving scenarios in collaborative groups. Manipulatives and technology will support the problem-solving approach.

III. PREREQUISITES for the COURSE

College Algebra, SMTE 1350, SMTE 1351

IV. TEXTS and OTHER SUPPLIES REQUIRED

Required:

- Scientific calculator
- Materials (up to $5) for Family Math Night
- Reliable access to high-speed Internet
- Reliable access to word processing software, spreadsheet software, and printing

Suggested:

- Participation in the class Facebook group for communication
- Laptops, smartphones, tablets and other mobile technology are encouraged for use in the classroom

V. STUDENT LEARNING OUTCOMES

This course is designed to enable students to achieve mathematics content and process goals as specified in the Educator Standards prescribed by the Texas State Board for Educator Certification (SBEC).

Standard III: Geometry and Measurement
The mathematics teacher understands and uses geometry, spatial reasoning, measurement concepts and principles, and technology appropriate to teach the statewide curriculum (TEKS) in order to prepare students to use mathematics.

**Standard V: Mathematical Processes**

The mathematics teacher understands and uses mathematical processes to reason mathematically, to solve mathematical problems, to make mathematical connections within and outside of mathematics, and to communicate mathematically.

**Standard VI: Mathematical Perspectives**

The mathematics teacher understands the historical development of mathematical ideas, the interrelationship between society and mathematics, the structure of mathematics, and the evolving nature of mathematics and mathematical knowledge.

**VI. INSTRUCTIONAL METHODS and ACTIVITIES**

The online course webpages will provide an outline of course topics, supported lecture, activities, discussions and collaborative learning. Students are responsible for their own learning using various resources, manipulatives and technology.

**VII. EVALUATION and GRADE ASSIGNMENT**

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<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>Presentation</td>
<td>25%</td>
<td>80-89%</td>
<td>B</td>
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<tr>
<td>Professional development</td>
<td>25%</td>
<td>70-79%</td>
<td>C</td>
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<tr>
<td>Exam</td>
<td>25%</td>
<td>60-69%</td>
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**Homework:** This category includes homework, in-class activities, quizzes, and reflective journals. Each student is expected to be fully involved in the collaborative group problem-solving process. Late homework will be penalized 10% for each weekday it is late. Unexcused absences may affect this part of your grade.

**Reflective journals:** Collaborative table group problem scenarios will precede individual time on tasks and culminate in individual reflective journals. The typed, two-page journal is due by email attachment before the next class period. Journals should include extensive explanations of the thinking process and methods used during group and individual time with the problem. A solution should be included along with extensive justification and explanation. Another important component is a description of attitude, beliefs and emotions encountered during the problem-solving process. A rubric will be used to award points for problem journals.
Quizzes: Only calculators will be allowed for use on quizzes. Cellphones may not be visible during the quizzes. Missed quizzes will incur a zero score unless prior, approved absences are given by the instructor. Missed quizzes must be made-up before the next class period.

Class presentations: Presentations will consist of formal group presentations to the class. Each student in the group must talk for one portion of the presentation. Final presentations will also be presented during the time scheduled for the final exam. Presentations should include interactive media pieces and be thoroughly researched and documented appropriately using APA format. Attendance is required for all group presentations; absences will affect your own presentation score.

Professional development: Each student will be responsible for choosing and completing various activities that will help build their professional development in mathematics teaching. Activities may be chosen from the list or approved by the instructor and may total up to 100 points. One required activity, Family Math Night, will be scheduled outside of class time in the evening. If you cannot make our class’ scheduled day/time, please attempt to participate in another section’s FMN. If you cannot participate in this required PD activity, please contact the instructor for options. All activities must be completed and proof/report turned in by 30 April 2012.

Exam: A comprehensive final exam will be given Thursday, 19 April 2012. This exam is worth 25% of your grade. Missing the exam will result in a zero score unless a documented absence is approved by the instructor. The exam may be made up within a week with such approval by the instructor. Only calculators will be allowed for use on the exam. Cellphones may not be visible during the exam.

VIII. TENTATIVE COURSE SCHEDULE

The course calendar is available on the class webpages and is subject to changes depending on the needs of the course, the students, and/or the instructor.
http://sci.tamucc.edu/~eyoung/3352/calendar.html

<table>
<thead>
<tr>
<th>Weeks 1 - 4</th>
<th>Van Heile model, curves, polygons, angles, diagonals</th>
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<tbody>
<tr>
<td>Weeks 5 - 6</td>
<td>Polyhedral, cones, cylinders, spheres</td>
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<tr>
<td>Weeks 7 - 10</td>
<td>Measurement, perimeter, circumference, area, surface area, volume</td>
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<tr>
<td>Weeks 11 - 13</td>
<td>Similarity, symmetry, transformations</td>
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<tr>
<td>Weeks 14 - 15</td>
<td>Fractals, graph theory, non-Euclidean geometry, final exam</td>
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<tr>
<td>Week 16</td>
<td>Presentations</td>
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IV. CLASS POLICIES

Written work: Written hardcopy assignments must be typed and stapled (no folding, paper clips, or plastic covers. The instructor reserves the right to penalize sloppy, unorganized, unstapled, misspelled, or poor grammatical work. The Writing Center is available for help with written assignments.
Emailed reflective journals: Email journals are due before the next class period. Assignments emailed to the instructor will be acknowledged by a return email. Students are responsible for making sure that their emailed work is received in good condition (Word, WordPerfect or RTF files preferred). Late journals will be penalized 10% per weekday they are late unless other provisions are made with the instructor.

Late work: Students are always encouraged to turn in work on time. However, if situations dictate that work will be late, please notify the instructor and turn it in as soon as possible (do not wait until the next class--bring it to my office, scan it or fax it). Late work may only be submitted up to 2 weeks late, and will incur a 10% penalty per weekday. The instructor may extend a deadline for approved, documented absences. Please make every effort to communicate with the instructor before class, and follow-up after class to determine any possible make-up work.

Missed work: In the case of an approved, documented absence, make-up of missed work may be allowed. Homework deadlines and points awarded may be adjusted at the discretion of the instructor.

Table group work: Each student will be assigned to a collaborative table group and be expected to participate and contribute to group work efforts. In the event of a conflict or problem, the group and/or individual may request a change. Final decisions about changes are up to the instructor.

Help: The best source of help for this course is the people directly involved in this course: your peers or the instructor, in class or during office hours. Others sources of help include CASA or an individual tutor.

Attendance: Attendance is expected and will reflect on individual and group participation. If you must be absent, please communicate with the instructor and YOUR TABLE GROUP before class or as soon as possible. Email is encouraged elaine.young@.tamucc.edu or you may call my office at 361-825-2819 and leave a message. Please follow-up with the instructor for details of what you missed in class and any assignments.

REFERENCES


**UNIVERSITY POLICY STATEMENTS**

**Academic Integrity/Plagiarism**
University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a zero grade.

**Dropping a Class**
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. The last day to drop the class is **30 March 2012**.

**Grade Appeals**
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**Disabilities Accommodations**
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 believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

Veterans
If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.