Math 372.001 - Mathematical Structures and Applications
COURSE SYLLABUS: Spring 2014

Instructor: Mrs. Lymeda Singleton, Instructor
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COURSE INFORMATION

Materials – *Textbooks*:

- Developing Essential Understanding of Ratios, Proportions, and Proportional Reasoning Grades 6-8, National Council of Teachers of Mathematics ISBN 978-0-87353-622-6
- Navigating through Algebra in Grades 6-8, National Council of Teachers of Mathematics ISBN 0-87353-501-4

Supplies: TI-83 or TI-84 calculator, notebook paper (8½ X 11 in., wide- or college-ruled, no spiral), **pencils**. (All work must be completed in pencil). You may also want a ruler with USCS and metric measurements, colored pencils, scissors, tape, stapler, and a 2" or 3" 3-ring notebook for handouts.

Course Description: Class time will be spent in lecture, demonstrations, group activities, and tests. Announcements, assignments, notes, and other important documents will be posted outside my office and / or Mrs. S's faculty website.

Student Learning Outcomes

Students completing this course should be able to demonstrate a developed understanding of mathematics, connections of ideas within and between mathematical concepts, the ability to think mathematically and explain such thinking, the manipulation of numbers and the development of formulas, proficiency in solving problems using algebraic thinking, and the proper use of manipulatives to teach algebraic concepts.

You should already know how to do the computations for most of the material. Therefore, the goal of this course is NOT to teach simple mathematical computations, but to assist you in developing an understanding of mathematics. As a future teacher, you must be able to explain the why of mathematics to your students, not just teach rote

manipulations of numbers and symbols. You should know and understand more mathematics than what you teach.

COURSE REQUIREMENTS

***Course Placement*:**
To be placed in this course, you should have passed Math 351 Topics in Mathematics for Elementary Teachers Part 2 with at least a C.

***Attendance*:** Attendance is one of the keys to success in this course. Each class period will cover new material that is important, therefore, attendance will be checked each class period. All students are expected to be present daily. If you miss a class, you are still expected to come to the next class period PREPARED. A written copy of assignments is posted outside the instructor's office door. Assignments will be sent via email when requested. **There are no "excused" or "unexcused" absences in this class**, although I do appreciate knowing why you missed if you feel you can share that with me. Please put it in writing.

If you represent TAMU-Commerce on an athletic team, band, choir, debate, or other group and must miss class, notify me in writing with the coach's / sponsor's signature one week before the anticipated absence in order to not be counted absent. Arrangements for make-up work will be made at that time.

If a student has no absences and less than three tardies per test unit, the student will receive 5 points extra credit on that major exam. If a student has no absences during the entire semester and fewer than 3 tardies, he / she will receive 5 points on the final exam. NOTE: 2 tardies during a test unit count as one absence, resulting in the loss of the extra credit points.

*******As future teachers, each student in this class should understand and appreciate that attendance has a great effect on performance. The state of Texas has a truancy policy for this reason. If a student misses 20% (6 absences) or more of this class, he / she will be considered "truant" and will not receive credit for this course. The highest grade assigned to any student who has been truant without documenting extenuating circumstances will be a D. *******

GRADING

NON-TEST GRADES: 15%, grade to be determined by points accumulated.
Each problem set will have a series of questions to be answered, with each student / small group writing a report on the processes used, patterns noticed, and concepts demonstrated / learned. The point values will vary, depending on the problem.

ALGEBLOCK / Algebra Models TEST: 10%
Each student will meet individually with the instructor outside of the regular class time for 30 minutes the fifteenth week of the semester to demonstrate their understanding of the use of Algeblocks / Algebra Models in the teaching of algebra-related topics. The test will be approximately 15 questions covering integer concepts, algebraic expressions and equation solving.

2 MAJOR TESTS @ 25% each:
Test # 1: number theory and problem solving
Test # 2: proportional reasoning, graphing, and algebraic reasoning

Tests will be taken in the Academic Testing Center, in Ferguson Social Sciences building, 3rd floor, room 308. Students will schedule their own testing time based on their schedule. Each test will be allowed 2 hours (but will be the length for 1.25 hour class time). Additional instructions will be given at the appropriate time.

FINAL EXAM: 25%: The Final Exam will be a comprehensive exam. Thursday, May 9, 8 - 10 am, in Binnion 329.

Grading Scale: A: [90, 100+), B: [80, 90), C: [70, 80), D: [60, 70), F: [0, 60) **A "C" in this course is required in order to take Math 351.**

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

For help with assignments, classroom activities, or any thing else, please feel free to drop in during my posted office hours, or call me. Outside these hours, please email me. I will check my email several times a day in order to reply as promptly as possible.

The MATH LAB was created to provide tutors to students who need extra help in a math course. Tutors are available according to the following schedule:

Monday, Wednesday: 8 a.m. – 8 p.m. Tuesday, Thursday: 8 a.m. – 6 p.m.
Friday: 8 a.m. – Noon.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

Academic Integrity: Because the majority of students are honest in their school work, I accept the responsibility to take measures to protect you, an honest student, from the few students who would take advantage of you and obtain grades by fraudulent or deceptive means. Please understand that the efforts to prevent cheating in this class are made out of respect and obligation to you as an honest person, not as an insult. Your cooperation will reduce the inconvenience and encourage the person who is tempted to cheat to do his/her work honestly. Academic dishonesty takes many forms:

- Giving or receiving answers during an exam or quiz.
- Viewing the exam or quiz answers of a nearby classmate.
- Having notes / practice work available during quizzes or tests.
- ***Possession or access to test items before the test is given.***
- Deception in getting an excused absence to obtain the undeserved opportunity to make-up work.

- ***Any method, no matter how well rationalized or accepted, which improves a person's grade by any means other than study and skillful performances on exams and/or other assignments.***
- **PRESENCE of ELECTRONIC DEVICES during a quiz or test.** If cell phones, texting devices, or music players are IN SIGHT during a quiz or test, the owner will receive a zero on the quiz or test.

Students found guilty of an act of academic dishonesty in this course will be subject to the following actions in this course: A first violation in a class will result in a zero on the task/assignment/quiz/test. No make-up will be allowed nor will you be allowed a final exam substitution in the case of an exam. A second violation in a class will result in an "F" in the course, regardless of current average. Appropriate offices will be notified in all incidents

University Specific Procedures

ADA Statement

Students with Disabilities
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- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

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).*

Classroom Environment: RESPECT
We are all here to learn. Therefore, to minimize the disruptions and distractions that detract from and interrupt the learning environment, all electronic devices will be turned off or set to silent, all caps and hats will be removed, appropriate dress for future teachers followed, and all people treated with respect. Students who do not abide by this policy will be asked to leave, counted absent, and receive a zero(s) for any daily work.

COURSE OUTLINE / CALENDAR

Not developed yet, as these are new textbooks for this course.