School of Mathematical and Natural Sciences
Course Syllabus
Math 3553: Number Systems

Instructor **Office** **Office Hours**

Prerequisites: MATH 1043 College Algebra (ACTS # 1103) or MATH 1003 (ACTS # 1003) Survey or Mathematics with a minimum grade of C.

Course Description: Development of real number system and basic concepts of probability and statistics.

Text and Materials:

Teaching Fractions and Ratios for Understanding, 3nd ed. Lamon, Susan J.
A graphing calculator such as a TI-73, TI-83, or TI-84

Objectives:

1) The students will identify the components of the real number system.
2) The students will demonstrate a mastery of the basic arithmetical operations with the various subsets of the real number system.
3) The students will demonstrate a conceptual understanding of fractions, ratios, and proportions.

Course Content:

1) Fractions and proportional reasoning
2) Fractions and rational numbers
3) Relative and absolute thinking
4) Measurement
5) Quantities and covariation
6) Reasoning up and down
7) Unitizing
8) Sharing and comparing
9) Proportional reasoning
10) Reasoning with fractions
11) Part-whole comparisons with unitizing
12) Partitioning and quotients
13) Rational numbers as operators
14) Rational numbers as measures
15) Ratios and rates
16) Distance-rate-time relationships
17) Operations with integers

Tentative Exam Schedule:

Exam #1	Thursday, September 13	Chapters 1 - 4
Exam #2	Tuesday, October 9	Chapters 5 - 8
Exam #3	Tuesday, October 30	Chapters 8 - 12
Exam #4	Tuesday, November 20	Chapters 13 - 16
Final Exam	Thursday, December 13	Comprehensive Final Examination

****To prevent distractions to others, all cell phones should be turned off in class.****

Grading Policy:
There will be 4 tests worth 100 points each. There will be 25 points from the Special Number Project and 50 points for the mini-lesson. There are no opportunities for taking tests late. See Make-up Policy below.

The following grading scale will be used: A ☐ 90% > B ☐8

Make-up Policy:
There are no make-up chapter exams. If you know that you are going to be absent the day that a chapter exam is scheduled, you may make arrangements to take it early. If no tests are missed, your score on the final exam will replace your lowest test grade or quiz grade if the score on the final is higher. If one test is missed, then the grade on the final exam will be substituted for the test grade. If two or more tests are missed, a grade of zero will be given for the second and any subsequent missed test. The final exam grade will not be dropped or replaced. The written reports for the Special Number project are due on September 11 and oral reports will be given on September 18.

Other Components of the Grade for the course:
1) Special Number Project
*Oral report to class (approximately 3 - 4 minutes)
*Written report (2 - 3 pages exclusive of title page and bibliography)

2) Mini-lesson (Must be chosen from one of the investigations from your Connected Mathematics Project modules). Students will work in teams of 3 - 4 persons to team teach a standards-based lesson. The lessons will taught on November 27, November 29, and December 4. The grading for the lessons will consist of the following components:

*Lesson plan (10 points; 1 plan for the team will be submitted)
*Reflection on the lesson (10 points; each person on the team will submit a reflection)
*Homework and homework assignment (5 points; the team will assign and grade homework)
*Teaching the lesson (25 points)

Other Things You Can Do to Be Successful:
1) Get help before it is too late!!! You know better than anyone else when you need help so it is up to you to get it. Ask your teacher for help. Find a study partner or form a study group. Make arrangements to meet at a certain time and at a certain place to work problems together.
2) Take good class notes. You should come to class each day prepared to ask questions over the previous day's homework
assignment or about any concept that was confusing to you. Don't trust your memory!!
Each day you should take
complete notes of everything that your teacher writes on the board and most of what he says. The problems and examples that your teacher works on the board will serve as a study guide when you attempt to work the homework problems from your text and from the computer. Read your book and study the examples in your book and in your notes carefully BEFORE you attempt to do your homework problems.
3) You must make a time commitment to do the work required to be successful in class.
4) Get off to a good start. The most important test you are going to take this semester is Test #1. This test usually sets the

tone for the rest of the course and is a powerful indicator of whether you will be successful in this course or not.

5) Your classroom behavior is important. In order to be successful in this course, you must attend class regularly and on time. Come prepared to take the class notes and ask questions. Research has shown that students who sit at the back of the class make lower grades than those who sit near the front. This is a mathematics class so ALL discussion during the class should relate to that topic. This is neither the time nor the place for social chit chat. Be respectful and expect to be respected. There is no such thing as a "dumb question". All questions have value and offer us the opportunity to learn.

IMPORTANT DATES:

August 22 (Wednesday)	First day of classes.
August 28 (Tuesday)	Last day to register or add fall classes.
September 3 (Monday)	All offices and classes closed.
October 5 (Friday)	Deadline to file for May graduation.
October 13 (Saturday)	Homecoming.
October 31 (Wednesday)	Last day to drop with W.
November 5 (Monday)	Preregistration for Spring 2013 begins.
November 16 (Friday)	Preregistration for Spring ends.
November 21 – 23	Thanksgiving Holiday.
December 4 (Tuesday)	Last day to withdraw from class.
December 7 (Friday)	Last day of classes.
December 13 (Thursday)	Final exam, 1:30-3:30.

It is the policy of the University of Arkansas-Monticello to accommodate individuals with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course. Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall room 120; phone (870)460-1026; TDD (870)460-1626; fax (870)460-1926; email: whitingm@uamont.edu. In McGehee, contact the Office of Special Student Services; phone (870)222-5360; fax (870)222-1105. In Crossett, contact the Office of Special Student Services; phone (870)364-6414; fax (870)364-5707.

UAM will no longer mail grade reports to all students. You may access your grades through Campus Connect on the UAM homepage, http://www.uamont.edu/. To have your grades mailed to you, complete the grade request form available in the Registrar's Office in Monticello or the Student Services offices in Crossett and McGehee.

Student conduct statement:

Students at the University of Arkansas at Monticello are expected to conduct themselves appropriately, keeping in mind that they are subject to the laws of the community and standards of society. The student must not conduct him/herself in a manner that disrupts the academic community or breaches the freedom of other students to progress academically.

Academic dishonesty:

1. Cheating: Students shall not give, receive, offer, or solicit information on examinations, quizzes, etc. This includes but is not limited to the following classes of dishonesty:

a. Copying from another student's paper;
b. Use during the examination of prepared materials, notes, or texts other than those specifically permitted by the instructor.
c. Collaboration with another student during the examination;
d. Buying, selling, stealing, soliciting, or transmitting an examination or any material purported to be the unreleased contents of coming examinations or the use of any such material;
e. Substituting for another person during an examination or allowing such substitution for oneself.

2. Collusion: Collusion is defined as obtaining from another party, without specific approval in advance by the instructor, assistance in the production of work offered for credit to the extent that the work reflects the ideas of the party consulted rather than those of the person whose name is on the work submitted.
3. Duplicity: Duplicity is defined as offering for credit identical or substantially unchanged work in two or more courses, without specific advanced approval of the instructors involved.
4. Plagiarism: Plagiarism is defined as adopting and reproducing as one's own, to appropriate to one's use, and to incorporate in one's own work without acknowledgement the ideas or passages from the writings or works of others.

For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will be immediate dismissal from the course and a grade of F will be recorded.