MAT156 SYLLABUS

COURSE
MAT156 – Mathematics for Elementary Teachers I – Section 21663 – Spring 2009

INSTRUCTOR
Brian Bird – MA 179 – (623) 845-3149 – brian.bird@gcmail.maricopa.edu

TIME and LOCATION
Mondays and Wednesdays 10:00 – 10:50 a.m. January 21st – May 6th GCC Main MA 128

Note: No class on January 19th due to MLK Day
No class on February 16th due to Presidents' Day
No class on March 16th and 18th due to Spring Break

COURSE DESCRIPTION
Focuses on numbers and operations. Algebraic reasoning and problem solving integrated throughout the course. Prerequisites: Grade of "C" or better in MAT142, or MAT150, MAT151, or MAT152, or equivalent, or satisfactory score on District placement exam.

Note: Meeting the prerequisites does not guarantee your success in this class.

REQUIRED BOOK
Mathematics for Elementary School Teachers by Bassarear, 4th edition (green with apple on cover)

RECOMMENDED TECHNOLOGY
You should have a calculator that is suitable for the grade you plan to teach. You should have an open mind regarding technology and its place in the elementary school setting. Cell phone calculators are not permitted. Please see the instructor if you have any questions.

OBJECTIVES
Specifically, students will be able to:
1. understand the foundations for learning mathematics
2. understand fundamental concepts of sets, algebraic thinking and numeration
3. perform and deeply understand the four fundamental operations of arithmetic
4. understand basic number theory concepts
5. extend knowledge of whole numbers to real numbers
6. utilize multiplicative reasoning with ratios, proportions and percents

Generally, students will:
1. become very proficient at solving problems from elementary school mathematics
2. greatly deepen their understanding of elementary school mathematics
3. learn how to use manipulatives to teach elementary school mathematics
4. become acquainted with the NCTM and Arizona Standards
5. reflect on the role of technology in the elementary school setting
6. learn strategies that will enable them to become better elementary school teachers

ATTENDANCE POLICY
Attendance is very important in this class – much more so than a typical math class. Homework assignments and announcements will be made in class. A significant portion of you grade will be determined from in-class work, quizzes and presentations. Out-of-class work will be discussed in class. Test and final questions will be based on what we cover in class. Not only will your absence will hurt you, but it will hurt your peers as well since we learn so much from each other in this class. If you are unable to make class, please call or e-mail me (in advance if possible). If you have excessive absences (based on my discretion), you will be withdrawn with a "Y". Note: coming in late or leaving early counts as an absence.

GRADING

IN-CLASS WORK/QUIZZES/PRESENTATIONS 25%
Individual and group in-class work will be collected as appropriate. Occasionally, quizzes will be given to assess important topics from the homework and reading. Students will be required to present mathematical content to their peers. There will be no makeup in-class work, quizzes or presentations.

OUT-OF-CLASS WORK/SERVICE LEARNING 30%
Various homework will be suggested during class. Homework will usually not be collected; however, it is highly recommended to complete the homework. You are required to fulfill 6 hours of observation of and/or participation in mathematics instruction in an elementary classroom setting. See service learning addendum for more information. No late out-of-class work or service learnings will be accepted.

TESTS 30%
There will be two tests consisting of problems similar to problems presented in the class, reading, quizzes and homework assignments. Test 1 will cover chapters 1 and 2. Test 2 will cover chapters 3 and 4. There will be no makeup tests.

FINAL 15%
The Final will be Monday May 11th 12:00 – 1:50 p.m. The Final will cover chapters 5 and 6. It will consist of problems similar to problems presented in the class, reading, quizzes, homework assignments and presentations. There will be no makeup Final.

INDIVIDUAL PROBLEMS
Typically, problems will be graded as follows:

5 points – entirely correct
4 points – correct with a minor mistake
3 points – main idea correct
2 points – somewhat correct
1 point – very little correct
0 points – blank/no clue

Note: Show all work and units!

SEMESTER GRADE
The following scale can be used to determine your semester grade:
A = 90 – 100% B = 80 – 89% C = 70 – 79% D = 60 – 69% F = 0 – 59%

Note: There will be an arithmetic competency exam covering fractions, decimals, proportions and percents. You will have 3 opportunities to take this exam. **Your semester grade can be no more than one letter grade higher than the grade received on your best attempt.** For example: you have a course average of 95% (A) and your highest score on the competency exam is 53% (F), therefore you would earn a D for your semester grade.

NOTES and DISCUSSION ITEMS

1. Course content may vary from this outline to meet the needs of this particular group
2. Syllabus may be changed at any time at the discretion of the instructor with verbal notice
3. Withdrawals are not automatic – see instructor. You will be withdrawn with a "Y" (withdrawn failing which is counted as an "F" toward your GPA) after Friday March 6th if you don't reach an agreement with the instructor
4. College Catalog and Student Handbook Policies
5. Food and Drink Policy
6. Grievance (i.e. complaining) Policy
7. Behavior Policy (respect, one person talking at a time, cell phones quiet and away, etc.)
8. Classroom Atmosphere Policy (engage, ask questions, share ideas, etc.)
9. Cheating and Plagiarism Policy (1st offense assessment failure, 2nd offense course failure)
10. Special Needs – if you have any special needs, please see the instructor as soon as possible
11. Getting Help

OUTLINE

Monday	**Wednesday**
Happy MLK Day!	1/21 Syllabus Review Introductions
1/26 Start Chap 1/2	1/28
2/2	2/4
2/9	2/11
Happy Presidents' Day!	2/18
2/23	2/25*
3/2 Start Chap 3/4	3/4
3/9	3/11
Enjoy Spring Break!	Enjoy Spring Break!
3/23	3/25
3/30	4/1
4/6*	4/8 Start Chap 5/6
4/13	4/15
4/20	4/22
4/27	4/29
5/4	5/6
5/11* Final 12:00 – 1:50 p.m. Good luck!!!	

* indicates planned test day

BRIAN BIRD'S SCHEDULE

Time	Monday	Tuesday	Wednesday	Thursday	Friday
7:00					
7:30					
8:00					
8:30		**MAT212** *21686* *MA 120*		**MAT212** *21686* *MA 120*	
9:00	**MAT092** *21523* *HT2 159*				**MAT092** *21523* *HT2 159*
9:30					
10:00	**MAT092** *21526* *HT2 159*	**MAT212** *21687* *MA 120*	**Office Hours*** *The Math Solution*	**MAT212** *21687* *MA 120*	**MAT092** *21526* *HT2 159*
10:30					
11:00	**Office Hours*** *MA 179*				**Office Hours*** *MA 179*
		Office Hours* *MA 179*		**Office Hours*** *MA 179*	
11:30					
12:00	**MAT156** *21663* *MA 128*		**MAT156** *21663* *MA 128*		
12:30					
1:00		**Office Hours*** *MA 179*		**Office Hours*** *MA 179*	
1:30					
2:00					

* Additional Office Hours Available by Appointment