

**Instructor:** Dr. Michael Bice

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**Web Page:** <http://www.csustan.edu/math/bice/1030-f09/1030index.html>

### **Office Hours**

M 9:05 – 10:00 a.m., T 10:15 – 11:30 a.m., W 11:15 a.m. – 12:00 p.m., F 9:05 – 10:00 a.m., and by appointment.

### **Prerequisites**

Math 0106 or 0110, or a passing score on the ELM examination, or equivalent. If you cannot prove that you have met the prerequisites, you will be disenrolled from the course.

### **General Education**

This course satisfies the General Education area B3 requirement as outlined in the Breadth Requirements found in the CSUS General Catalog.

### **Student Learning Objectives**

By the time this course is finished, students will . . .

- (1) Have developed a variety of problem-solving skills.
- (2) Learn about different number systems used throughout history.
- (3) Be able to develop and discuss properties of the present-day number system by starting with whole numbers and expanding to fractions, decimals, integers, rational numbers, and irrational numbers.
- (4) Understand different representations and algorithms of addition, subtraction, multiplication, and division in both base 10 and other number bases, and examine why these methods work.
- (5) Know basic ideas of number theory, including prime/composite numbers, divisibility tests, greatest common factor, and least common multiple.
- (6) Learn about the process of learning math from the perspective of a young child.
- (7) Gain some familiarity with the state content standards of teaching mathematics.

### **Textbook**

Mathematics for Elementary Teachers: A Contemporary Approach (8<sup>th</sup> edition) by Gary L. Musser, William F. Burger, and Blake E. Peterson. This is the same book used in Math 1030 in the previous academic year. We will cover most sections in Chapters 1 - 9, and additional topics as time permits.

If you choose to use an earlier edition, it is your responsibility to seek out a fellow classmate to ensure you are completing the right problems. You cannot make up a homework assignment if you do the wrong problems – this is one reason why I drop a homework assignment.

### **Attendance Policy and In-Class Expectations**

I expect you to come to class every day and participate in all projects. If you miss class, it is your responsibility to seek out another student or myself to find out what you missed. While some class time will be used for lectures, we will often work through a number of worksheets and hands-on activities. Please bring your textbook to class with you every day, as you will often need it during these activities. If you need to bring additional supplies for a particular day, I will announce this in the previous class day.

If class attendance becomes a problem, I may give unannounced attendance quizzes. If you miss an attendance quiz, I reserve the right to grant or refuse a make-up quiz. Also, please keep in mind that class participation is part of your homework grade. If you do not attend class, you cannot participate in class that day.

## Written Homework

Typically, homework will be collected at the beginning of class on Wednesdays or Fridays, depending on the week. The first assignment will be due on Wednesday, September 16. See the attached course schedule for the due dates. Late homework will not be accepted, except at the instructor's discretion.

Assignments will be given in class and posted on the course web site. Homework will have three components:

- (1) *Reading*: I expect you to read the text as assigned. It is important to keep up with the reading throughout the semester, but I realize that reading math is sometimes frustrating. Try to work through your struggles, and see me if you need help.
- (2) *Practice Problems*: I assign many problems for homework. Most will be for practice. I encourage you to work on these problems, as some will appear on tests.
- (3) *Problems to Turn In*: Each assignment will also contain a list of problems that will be collected. About half of them will be done on paper and collected in class.

One goal of the homework is to develop an ability to clearly and effectively communicate to me that you know how to solve the problem. I expect your homework to be well-organized, clear, and legible. Do not assume that I can guess what you are doing. If I cannot follow what you are doing, I cannot give credit for it, even if your answers are correct.

I encourage you to work with your peers on the homework and course topics. Working with others allows you to bounce ideas off of your classmates, which can lead to a better understanding of the topics. But I expect you to submit your own work (unless I specify otherwise). Don't copy other people's work, as that is academically dishonest.

## Writing Assignments

During this term, you will be asked to write and submit two papers (2 – 4 pages) related to mathematics in elementary education. More details will be given in the next couple of weeks.

## Exam Schedule

Quizzes, two in-class midterms and a final exam will be given. See the attached schedule for the exam days. No notes or books of any kind will be allowed, and unless I specify otherwise in class, calculators will not be allowed. If you know in advance that you must miss a test, discuss this with me immediately. Otherwise, I do not give make-up exams unless extraordinary and compelling reasons arise. If you miss an exam for a legitimate emergency reason (which is for me to decide), I may reassign that portion of your grade to the final exam.

## Grading Policies and Scheme

The following grading scheme will be used:

12% Homework (lowest score dropped)	15% Low Midterm
10% Quizzes	20% High Midterm
13% Writing Assignments	30% Final Exam

I will use the plus/minus grading system. For the final course grades, if you score at least 90%/80%/70%, you are guaranteed at least an A-/B-/C- grade. If you decide to change your grading option for this course, you must do so by the date specified on the attached schedule. I will not consider option changes after the given date.

Unless I state otherwise, you must show your work to receive full credit for a correct answer. **No work = no credit.** If you wish to contest the grading of a problem or assignment, please ask me. I am always happy to review a graded problem and provide clarification on how something is graded.

Points from different categories are like different currencies. Just as a Canadian dollar is not worth the same as an Australian dollar, a homework point is not worth the same as a midterm point. You are welcome to ask me about your current course score, but I do not implement curves until the end of the term. I have found that my students benefit more from a curve on the entire course than individual curves on every assignment and test.

## Cell Phones, Computer Laptops, and Classroom Behavior

Please turn off and put away your cell phone and computer laptops during all class time. Any unauthorized use of a cell phone or computer laptop during class will result in its confiscation until class has ended or your dismissal from class for the day. If you must use your cell phone or laptop, leave the classroom without becoming a distraction to

your fellow classmates. If you need to leave your cell phone on during class time for an emergency reason, please speak with me about it as soon as possible so that special arrangements can be made.

If you attempt to use your cell phone or if it rings during a test, I will assume that you have finished your test, and I will collect your exam immediately. The same policy holds for computer laptops. Two violations of this policy during exams will constitute cheating and will be subject to the actions listed above. To avoid problems, consider leaving your cell phone and laptop elsewhere on exam days.

Any disruptive behavior that interferes with the learning environment of others will not be tolerated and may lead to disciplinary action and/or removal from class.

### **Cheating Policy**

I consider cheating to be a serious offense. It is a blatant disregard for the rules and a show of disrespect for me and your fellow students. Academic dishonesty of any kind deprives you of the education that you (or someone else) are paying a lot of money to get. If you are caught cheating, you will automatically receive a zero score for that assignment or exam, and it is then counted as either your highest test score in the grading policy or as an undropped assignment. Cheating incidents are reported to the Coordinator of University Discipline for further action, and you might also receive an “F” for your course grade. The consequences for cheating are severe, so don’t do it!

Please keep in mind that cheating can take on various forms. Use of the Instructor Solutions Manual is one form of academic dishonesty. Something as simple as one person telling someone who is scheduled to take a test later that the exam was hard/easy is academically dishonest. Any action that gives an individual any kind of unfair, unethical advantage is considered academically dishonest, whether done intentionally or not.

### **Students with Disabilities**

Upon identifying themselves to the University, students with disabilities will receive necessary accommodations for learning and evaluation. I cannot make accommodations until the student has filed all appropriate paperwork and Disability Resource Services has notified me of the appropriate accommodations.

### **Students in Athletics**

If you are a student athlete, it is your responsibility to provide me with a letter from your coach that lists all days in which you will be absent. Accommodations will be only be made if I receive the letter from your coach at least 7 business days in advance, with appropriate exceptions for the first week of class. Only written notices from your coach will be accepted. Take care of this at the beginning of the semester.

### **Syllabus Changes**

If changes to this syllabus are necessary, I will provide them in writing during class and post them on the web site. If you miss class on a day in which I announce changes, it is your responsibility to obtain them.

### **Furlough Dates**

Due to massive cutbacks in state support for the CSU system, all CSU instructors are required to take eight furlough days during the Fall 2009 semester. My furlough days are listed on the attached schedule. These days vary from instructor to instructor, so if we do not have class on a given day, it does not mean your other classes are also canceled. These days may also be different from the campus furlough days for staff and office workers.

Please keep in mind that I am required to not work during those days – if I perform any job-related activities, I could be subject to discipline. On instruction days, that means we will not meet as a class, but you may be required to complete an out-of-class assignment or worksheet. On all furlough days, I will not be responding to any student email, phone calls, or other contact of any kind. I apologize for the inconveniences these days will cause.

### **Other Comments**

Throughout Math 1030, we will cover many topics in elementary number theory and explore relationships and patterns in arithmetic. We will explore different ways of performing computations, and we will look at why things work the way they do. Along the way, we will discuss learning mathematics from the perspective of an elementary school student. This course can be fast-paced, and we will work through many different in-class activities. If you fall behind or get stuck, please come see me in office hours or make an appointment with me as soon as possible. Please don’t be afraid to see me: I don’t bite. ☺ I am more than happy to help you, and I want you to learn and succeed in this class. Good luck this semester!