

Instructor: Dr. Jim Brandt

Office: ELC 403

Office hours: MTWRF 11:15 to 12:15 and by appointment

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Course description: A two-semester sequence in mathematics appropriate to the needs of the elementary/middle schoolteachers. Topics include: Problem solving, sets, numeration systems, whole numbers, algorithms of arithmetic, number theory, rational numbers, decimal numbers. Required for prospective elementary school teachers.

Prerequisite: A grade of "C" or better in Math 1050 or Math 1210.

Content: This course is designed to strengthen and deepen your understanding of numbers and operations. We will explore fundamental concepts and computations along with teaching methods related to the following topics:

- exploring mathematical patterns
- sets and set operations
- numerical operations and algorithms
- factors and multiples of integers
- rational numbers.

Textbook: *A Problem Solving Approach to Mathematics for Elementary School Teachers* by Billstein, Libeskind, and Lott, 10th edition.

Calculator: A calculator is not required.

Grading: Four exams will be given during the semester, and each will account for 15% of your grade. The final exam will account for another 20%. Approximately ten problem sets will be distributed and collected during the semester, and the total score on the problem sets will contribute the remaining 20% of your grade. Textbook exercises will be assigned daily, but will not be collected or graded. However, they will be discussed daily and it is essential to keep up with this work. A student's letter grade will be based on the following:

A	93 - 100	A-	90 - 92		
B+	87 - 89	B	83 - 86	B-	80 - 82
C+	77 - 79	C	73 - 76	C-	70 - 72
D+	67 - 69	D	63 - 66	D-	60 - 62
F	Below 60				

Disclaimer: Information contained in this syllabus, other than the grading, late assignments, makeup work, and attendance policies, may be subject to change with advance notice, as deemed appropriate by the instructor. Changes will be announced in class.

Suggestions: Learning mathematics requires time, patience, and effort. Keeping up with assigned textbook exercises will spread out your time, patience, and effort, and will allow you to have a successful learning experience. Develop your own understanding and do not rely on the textbook by following examples blindly. If you are having difficulties, please come and talk to me, form a study group, or take advantage of the free tutoring at the Student Success Center (<http://www.suu.edu/ss/acdc/tutoring.html>).

Policies:

Attendance Attendance is expected and is crucial to understanding the material. However, there is no separate score for attendance.

Assignments Make-up exams will be given only with a valid excuse, and this possibility should be discussed with me prior to the exam except in extreme circumstances. A maximum of two problems sets will be accepted late (within one weekday of the due date).

Academic conduct Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. You are expected to have read and understood the current issue of the student handbook (published by Student Services) regarding student responsibilities and rights, and the intellectual property policy, for information about procedures and about what constitutes acceptable on-campus behavior. Regarding use of the campus network, the sharing of copyrighted material through peer-to-peer file sharing, except as provided under U.S. copyright law, is prohibited by law.

Disability support Students with medical, psychological, learning or other disabilities desiring academic adjustments, accommodations or auxiliary aids will need to contact the Southern Utah University Coordinator of Services for Students with Disabilities (SSD), in Room 206F of the Sharwan Smith Center or phone (435) 865-8022. SSD determines eligibility for and authorizes the provision of services.

Campus emergency In case of emergency, the University's Emergency Notification System (ENS) will be activated. Students are encouraged to maintain updated contact information through the *mySUU* portal, and to familiarize themselves with the Emergency Response Protocols posted in each classroom.

TENTATIVE SCHEDULE:

Week	Topics	Notes
May 30	Problem solving & logic (chpt 1) Number systems (chpt 2)	
June 6	Set operations (chpt 2) Whole number operations (chpt 3)	6/6 - Exam 1 at 10:15
June 13	Algorithms & estimation (chpt 3) Algebraic thinking (chpt 4)	6/13 - Exam 2 at 10:15
June 20	Integers & divisibility Primes & factoring (chpt 5)	6/20 - Exam 3 at 10:15
June 27	Rational numbers Operations on fractions (chpt 6)	6/27 - Exam 4 at 10:15
		7/1 - Final Exam at 9:45

In mathematics you don't understand things. You just get used to them. John von Neumann

In mathematics, if a pattern occurs, we can go on to ask, Why does it occur? What does it signify? And we can find answers to these questions. In fact, for every pattern that appears, a mathematician feels he ought to know why it appears. W. W. Sawyer