

MATH 2010—Mathematics for Elementary School Teachers I

Section 01, MW, 1:00–2:15 pm, NIB 150, CRN: 20403

Spring 2009—3 credits

Instructor: Taylor Jensen

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Office Hours: MTR 8:00–9:00 am & 10:00–11:00 am; W 8:00 am–12:00 noon

Additional Help: Browning Learning Resource Center

Required Text: *Mathematics for Elementary School Teachers* (8th edition)

Musser, Berger & Peterson

Calculator Requirement: You do not need to purchase a calculator; if you choose to purchase one, the TI–83 (any version) or TI–84 (any version) are good choices.

Prerequisite: You *must* meet at least one of the following minimum requirements:

- Passed Math 1050 with a “C” or better
- ACT math score of 25 or higher
- A suitable CPT score (check at the Testing Center)

Course Description

Math 2010 is the first course in a two-semester sequence in mathematics appropriate to the needs of the elementary/middle school teacher. Topics include sets, numeration systems, whole numbers, algorithms of arithmetic, number theory, fractions, decimals (including percents), integers, and functions. Problem solving is a fundamental goal of the entire course. The course is required for prospective elementary school teachers, as it is necessary for the Level 1 Math Endorsement and for Elementary (K–6) Certification.

Course Objectives

All classes in mathematics at Dixie State College of Utah support the general education goals of the college. Each mathematics class will:

- Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations, and/or calculus techniques
- Provide students with application problems that use a variety of methods including arithmetical, algebraic, and geometric methods
- Challenge students to make inferences from mathematical models that include formulas, graphs, and tables
- Provide students with real-life applications that use a variety of mathematical functions

Upon successful completion of Math 2010, a student will demonstrate the ability to:

- Identify and apply a sound problem solving process to a variety of mathematical problems involving elementary arithmetic operations
- Describe and apply a variety of problem solving strategies to individual problems

- Identify and apply instructional algorithms to basic arithmetic operations
- Demonstrate elementary arithmetic algorithms using manipulatives, which include: counters, blocks, and strips

Course Policies

- 1. Attendance and behavior are expected to reflect your dedication to the teaching profession.** You are expected to attend class, participate in discussions and group work, and to use class time for Math 2010 activities only.
- 2. Exams cannot be made up.** Midterm exams will be administered in the Testing Center, while the Final Exam will be administered in our regular classroom.
- 3. Completing all homework problems is required.**

Homework Policies

The goal of your doing homework should be to gain *understanding* of elementary school mathematics—above and beyond rote memorization and superficial knowledge of formulas and “facts”. My homework policies are designed to incite your full engagement when doing homework, so you feel it is of your benefit both to do the homework and to do it well. With that in mind, let me present the policies:

1. Students will turn in both homework problems (from Problem Set A) *and* quiz problems (from Problem Set B) on the due dates scheduled. Late quizzes and/or homework will ***not*** be accepted for ***any*** reason. If you are involved in extracurricular activities (such as an athletic team), and one of your scheduled events conflicts with a homework due date, it is your responsibility to finish the homework and turn it in *early*.
2. Homework problems will be graded on *completion only*; quiz problems will be graded on *correctness*. Together, each assignment will be worth ten points (five points homework, five points quiz).

Observations

You are required to observe 10 hours of actual mathematics lessons given by public school teachers working in local elementary/intermediate/middle schools. You must observe at least 2 different teachers, preferably one in an elementary school, the other in an intermediate/middle school. It is *your* responsibility to make arrangements to do these observations. Schools and their corresponding phone numbers are listed in the St. George phone book (in the blue pages along with government listings). At the end of the semester, you will type a summary report of what you have learned through your classroom observations. This summary report will be graded. During the first week or so of class, I will provide you with more details about this requirement as well as forms to fill out in order to receive credit for this requirement.

Grading

Assignments	100 points	Final Exam Part I (<i>new material</i>)	
Observation Report	50 points		60 points
Midterm Exams	150 points	Final Exam Part II (<i>old material</i>)	40 points

There are 400 total points possible. Your grade will be determined according to the percentage of points you earn in this course.

≥ 92.0% A	≥ 89.0% A–	≥ 86.0% B+	≥ 82.0% B
≥ 79.0% B–	≥ 75.0% C+	≥ 70.0% C	≥ 67.0% C–
≥ 64.0% D+	≥ 60.0% D	< 60.0% F	

Disability Resource Center

If you are a student with a documented physical or mental impairment that will substantially limit a major life activity, please contact the Disability Resource Center on the main campus. The Center Coordinator and staff will assist you in evaluating your eligibility for services. If you are deemed eligible, reasonable accommodations that are appropriate for your disability will be assigned. If you have any questions concerning this process, please contact the Center at (435) 652–7516 or go to the Student Services Center, Room 201.

Website Resources

Library	http://library.dixie.edu/
Writing Center	http://new.dixie.edu/english/dsc_writing_center.php
Testing Center	http://new.dixie.edu/testing/
Tutoring	http://dsc.dixie.edu/tutoring/index.htm

My Philosophy

I believe every future elementary teacher, including **you**, can learn the material taught in this course. I am confident that learning this material will make a **vital** difference in your ability to teach the basics of mathematics to your future elementary school students. Learning about mathematics should be **fun!** If we're not having fun while we learn, we're not really learning! ☺

The “Fine Print” from DSC

Academic Behavior Policies

As members of Dixie State College's academic community, students shall:

1. Maintain academic standards including institutional, school/departmental/program, and individual course standards.
2. Display appropriate conduct in classroom situations that will enhance the learning environment.
3. Meet faculty members' classroom standards of behavior and attendance requirements or make contact with faculty members when unable to do so.
4. Maintain academic ethics and honesty; to this end, prohibited activities include, but are not limited to, the following:
 - Cheating, which includes, but is not limited to, copying from another student's test papers, or plagiarism.
 - Using materials during a test not authorized by the person giving the test.
 - Collaborating with any other person during a test without authority.
 - Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or in part the contents of any test, without authorization of the appropriate official.
 - Bribing any other person to obtain any test.
 - Soliciting or receiving unauthorized information about any test.
 - Substituting for another student or permitting any other person to substitute for oneself to take a test or complete an assignment.
 - Plagiarism, which is the unacknowledged (uncited) use of any other person or group's ideas or work. This includes purchased or borrowed papers.
 - Collusion, which is the unauthorized collaboration with another person in preparing work offered for credit.
 - Falsification, which is the intentional and unauthorized altering or inventing of any information or citation in an academic exercise, activity, or record-keeping process.
 - Giving, selling, or receiving unauthorized course or test information.
 - Using any unauthorized resource or aid in the preparation or completion of any course work, exercise or activity.
 - Infringing on the copyright law of the United States which prohibits the making or reproduction of copyrighted material except under certain specified conditions.
 - Not obtaining the instructor's permission before recording lectures.
 - Not notifying instructors in advance of any planned absence for participation in college-approved or requested group activities.
 - Unethical and inappropriate use of any computer system, library, or other campus resource, and interference with the productivity of other users.

Communication Policy

Important class and college information, including syllabus changes for this class, will be sent to your “Dmail” account. This information includes your DSC bill, financial aid/scholarship notices, notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC in general. All DSC students are automatically assigned a “Dmail” account. If you don’t know your user name and password, go to new.dixie.edu and click on “Dmail” for complete instructions. You will be held responsible for information sent to your “Dmail” account, so please check it often. When trying to get a hold of me, the best option is to call my office phone or email me.

Lecture Schedule

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<u>DATE</u>	<u>LESSON</u>	<u>DATE</u>	<u>LESSON</u>
1/5	Introduction	3/2	Review (Midterm 2)
1/7	2.1	3/4	6.1
1/12	2.2	3/9	6.2
1/14	2.3	3/11	6.3
1/19	Martin Luther King Day	3/16	Spring Break
1/21	2.4	3/18	Spring Break
1/26*	3.1	3/23	7.1
1/28	3.2	3/25	7.2
2/2	3.3	3/30	7.3
2/4	Review (Midterm 1)	4/1	7.4
2/9	4.1	4/6	Review (Midterm 3)
2/11	4.2	4/8	8.1
2/16	President's Day	4/13	8.2
2/18	4.3	4/15	9.1 & 9.2
2/23	5.1	4/20	9.2 & 9.3
2/25*	5.2	4/22	Review (Final Exam)

* The last day you may drop the class is without a “W” appearing on your transcript is Tuesday, January 27th. The last day you may drop the class is Friday, February 27th.

The **Final Exam** will be at 12:00 noon on Friday, April 24th, in NIB 150.

Homework/Test Dates

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<u>DATE</u>	<u>HMWRK. & QUIZ DUE</u>	<u>TEST DUE</u>
1/14	2.1 2.2	
1/28	2.3 2.4 3.1	
2/4	3.2 3.3	
2/8 (Sunday)	————	Midterm 1 closes
2/18	4.1 4.2	
2/25	4.3 5.1	
3/6 (Friday)	————	Midterm 2 closes
3/11	5.2 6.1 6.2	
3/25	6.3 7.1	
4/1	7.2 7.3	
4/10 (Friday)	————	Midterm 3 closes
4/15	7.4 8.1	
4/22	8.2 9.2	

The **Final Exam** will be at 12:00 noon on Friday, April 24th, in NIB 150. In addition, the Observation Report will be due at that time.