

**Dixie State College of Utah  
Department of Mathematics  
Spring 2008 Course Syllabus**

**COURSE:** Math 2020-01, Math for Elem. Teachers II, MW 1:00 ~ 2:15 PM  
Room Number: NIB 150 3 credit hours

**INSTRUCTOR:** Dr. Clare Banks, [banks@dixie.edu](mailto:banks@dixie.edu)  
*Office:* NIB 138 *Phone:* 652-7982  
*Office Hours:* M~R 9~9:50, F 10~10:50 and by appointment.

**REQUIRED :** Musser, G., Burger, W., & Peterson, B.(2006), *Mathematics for*  
**TEXT** *Elementary Teachers* (7<sup>th</sup> ed.) John Wiley & Sons, Inc.

**OBJECTIVES:** All classes in mathematics at Dixie College support the general education goals of the college. Each 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 2020, a student will demonstrate through testing the ability to:

- Draw logical conclusions based on accepted facts, and explain the supports used to make those conclusions.
- Recognize and describe mathematical and logical patterns and relationships, and make inferences and generalizations based on those observations.
- Use a variety of experimental and visual methods to connect geometry, probability, and statistics to traditional subject matter concepts.

**PREREQUISITIES:** C or better in Math 2010

**CALCULATOR:** A scientific calculator is recommended.

**GRADING POLICY/SCALE:** The course grade and weights are given below.

Homework	30 points	<u>Percent</u>	<u>Percent</u>
Article Reviews	40 points	94-100 = A	66-69 = D+
Tutoring Log	40 points	90-93 = A-	60-65 = D
Research Paper	20 points	87-89 = B+	55-59 = D-
Group Project/presentation	30 points	83-86 = B	< 55 = F
Four Midterm Exams	400 points	80-82 = B-	
Final Exam	100 points	77-79 = C+	
Portfolio	10 points	72-76 = C	
Participation	30 points	69-71 = C-	

**DISABILITIES:** 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 analyzing 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 652-7516; we are located in the Student Services Center, Room #201 of the Edith Whitehead Building.

**REBELMAIL:** Important class and college information will be sent to your Rebelmail email 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. All DSC students are automatically assigned a Rebelmail email account. If you don't know your user name and password, go to [www.dixie.edu](http://www.dixie.edu) and select "Rebelmail," for complete instructions. You will be held responsible for information sent to your Rebelmail email, so please check it often.

**COURTESY, ETC:** No headphones during class or tests. Cell phones should be off. Please do not come late or leave early.

**DISHONESTY:** If it is determined that you cheated, you will receive a zero for that exam. If cheating occurs a second time, you will receive an F for the course.

**HELP:** I am available during my office hours and by appointment. Browning Resource Center also has tutors available.

**SUCCESS:** To be successful in this course, follow these guidelines: 1) read before class, 2) attend all classes, 3) do all homework, 4) study each day – do lots of practice problems, 5) seek help immediately if you are lost, 6) have fun with it!

## **ASSIGNMENTS:**

### ***1. Homework***

Doing your homework will prepare you for the exams. Understanding how to solve the homework problems is crucial to success in this class. You are permitted to hand in late homework 3 times. Please save this privilege for when you are ill or for when an emergency arises. Late homework will in no way be accepted 2 weeks beyond the due date. Clearly label your homework with chapter and section number. Start each section with a clean page. Please do not staple more than one section together.

### ***2. Article Reviews***

There will be four articles assigned during the semester. Students will read the articles and answer written questions to demonstrate their understanding.

### ***3. Tutoring Log***

Throughout the semester, you are required to do 20 sessions of Mathematics tutoring. Your log should have an entry for each session of tutoring. These tutoring experiences should be done at an appropriate level of instruction, and if at all possible with the same student over the semester. To avoid conflict with the education department, math 2020 students should limit their visits to the following schools:

School	Address	Area	Phone #
West Elementary	12 N 300 W	West St. George	628-4427
Bloomington Elementary	425 Man of War Road	Bloomington	673-6266
Bloomington Hills Elem.	919 E Brigham Road	Bloomington Hills	674-6495
Riverside Elementary	2500 S. Harvest Lane	Washington Fields	652-4760
Panorama Elementary	301 N 2200 E	East St. George	628-6881
Red Mountain Elementary	263 E 200 S	Ivins	656-3802
Dixie Downs Elementary	1795 W 1230 N	Dixie Downs	673-8978
Fossil Ridge Intern.	383 S. Mall Drive	East St. George	652-4706

*\*Any Middle School*

#### ***4. Research Paper***

You are to prepare a 3-5 page case analysis about your Service Tutoring. This paper should provide research support for the tutoring that you do during the semester. The tutoring that you provide should be based on a sound understanding of mathematical concepts, methods, processes and materials, as well as a basic understanding of student expectations at specific developmental stages. Together with your supervising teacher you should identify the discrepancies between what is expected of your student and performance level. You will submit a short summary of your student's needs and identify research sources about those needs.

The following subtitles should be included in your research paper:

1. Title of your report (Your title should contain key words that will be recognized by others who might be interested in your research, a title should indicate what was studied – not the results of the study)
2. Introduction: The purpose of, or the need for, your research.
3. Literature Review: How other people's papers connect to yours; or use the literature review to establish the need for your paper.
4. Method: Description of the physical steps undertaken to complete this project, begin with a description of your subjects (use the past tense for this section).
5. Analysis and Results.

#### ***5. Group Project (2-4 students/group)***

Projects will be assigned and groups formed during the first few weeks of the semester. Project presentations will take place during the last week of the semester. Details will be given in class.

#### ***6. Examinations***

There will be four in-class exams as well as a comprehensive final exam.

#### ***7. Portfolio***

Each student needs to prepare a three-ring binder, in which you include all material received from the teacher or classmates, your homework assignments, and materials collected that are related to the class. Use section dividers and name each section. The portfolio will be graded on appearance as well as content.

One section to be included in your portfolio should be Internet resources. This section should include all websites mentioned in class along with a minimum of 5 other websites of your

choosing that might enhance your mathematics teaching. Write a brief description of the websites you choose and submit the URL, making enough copies to share with the class.

### 8. Attendance/Participation

Students missing no more than two classes (excused or unexcused) can replace their lowest exam score with the score they receive on their final exam.

Group activities will be held at the end of each class period. Ten activity sheets will be collected for credit. You will not know when. The collected sheets will earn you your activity points. If you leave class early and your group members need to finish up the work for you, you will not receive the activity points. Missed in-class work and activities cannot be made up.

#### Week and Topic

Dates	Topic	Homework Due
Jan 7 Jan 9	Intro, 10-1 10-2	
Jan 14 Jan 16	11-1 11-2	10-1, 10-2
Jan 21 Jan 23	No class 11-3	11-1, 11-2, Article I
Jan 28 Jan 30	<b>Exam I</b> 12-1	11-3
Feb 4 Feb 6	12-2 12-3	12-1, 12-2
Feb 11 Feb 13	12-4 12-5	Article II 12-3, 12-4
Feb 18 Feb 20	No Class <b>Exam II</b>	12-5
Feb 25 Feb 27	13-1 13-2	
Mar 3 Mar 5	13-3 13-4	Article III 13-1, 13-2
Mar 10 Mar 12	Spring Break Spring Break	
Mar 17 Mar 19	14-1 14-2	
Mar 24 Mar 26	<b>Exam III</b> 14-3	14-1, 14-2
Mar 31 Apr 2	14-4 15-1	Article IV 14-3, 14-4
Apr 7 Apr 9	15-2 16-1	
Apr 14 Apr 16	16-2 <b>Exam IV</b>	15-1, 15-2 16-1, 16-2, Research Paper, Tutoring Log
Apr 21 Apr 23	Presentation Presentation	
Apr 28	<b>Final Exam 12~2</b>	Monday

Feb 20 Last day to add classes without instructor permit

March 28 Last day for complete withdrawal

## Homework Assignments

Section	Part A	Part B	Writing/Discussion
10-1	2-4, 9-11, 17, 18, 19	3, 7, 10 24ac	2
10-2	1-8, 10, 12, 13, 18-20, 22, 25, 26	3, 12, 15	1
11-1	1-3, 5, 7, 8, 10-14	10, 12, 15, 16	1
11-2	1-3, 5, 7, 9, 10, 12-14	5, 7, 9, 10, 11	1
11-3	3, 11, 15, 22, 23	5, 9, 12, 14	2
12-1	1-17	2,4,5,11,16	1
12-2	1-13	2,3,5,9,13	3
12-3	1-15	6,7,8,9,12	2
12-4	1-20	1,2,3,5,15	
12-5	1-15, 17-22	2, 5, 6, 7, 13	1
13-1	2-7, 9, 16, 18, 29, 29	6,16,19,25	1
13-2	5, 9, 11, 13, 19, 24	4, 20, 21, 23, 28	3
13-3	1, 3, 7, 9, 13	1, 2, 4, 7, 10	
13-4	1, 3, 6, 12, 23	2, 4, 8, 10	
14-1	1, 2, 4, 5, 7-9, 14	2, 4, 7, 13	3
14-2	1-4, 9, 13, 14, 16	1-6, 8, 9, 16	3
14-3	1-6, 9, 13, 14	1, 5, 7, 8, 9	1
14-4	1, 5, 7, 9, 10, 11, 12, 14, 15	1, 3, 4, 5	1
15-1	1-4, 7, 8, 12, 14	5, 6, 12, 14	2, 3
15-2	1-9, 11, 12, 18-21	10	1
16-1	1, 3, 4, 10, 12, 14, 15, 16	4, 8, 12, 14, 16	1
16-2	11, 12, 13, 14, 22	9, 12, 13	3

**The instructor reserves the right to change any of the information on the syllabus**