

# Dixie State College

## Syllabus for Elementary Algebra

**MATH 0930- 51 Fall 2006**

This course does not count toward overall credits earned for graduation, nor does it fill general education requirements; however, this course counts for financial aid and activity eligibility purposes, and the final grade contributes to the student's cumulative GPA.

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Instructor: Kevin D. Baron Classroom: MCDON 104  
Phone: 435-703-0095 Class time: 5:30 - 7:20 pm  
Email: kbaron@dixie.edu Office: Classroom  
Office hours: half hour before & after; others by appointment.  
Check the schedule on the office door for other times I may be available.  
Course begins 8-22-06 Course ends 12-15-06

### Course Objectives:

All developmental mathematics classes at Dixie State College will:

1. Require students to perform mathematical processes including whole numbers, fractions, percentages, decimals, proportions/ratios, integers, and algebraic equations.
2. Provide students with application problems that use a variety of methods including arithmetical, algebraic, and geometric.
3. Challenge students to make inferences from mathematical models that include formulas, graphs, and tables.
4. Provide students with real-life applications that use a variety of mathematical processes.

Upon successful completion of MATH 0930, students will demonstrate the ability to:

1. Perform arithmetical operations on rational numbers (including fractions, decimals, and signed numbers) with and without a calculator.
2. Perform mathematical processes with percentages and use them in real-life applications.
3. Demonstrate the concept of equivalence including the use of variables to define relationships.
4. Use geometric formulas and apply them to angles, perimeters, areas, and volumes.
5. Use the mathematical processes of whole numbers, fractions, decimals, percentages, signed numbers, proportions/ratios, and algebraic equations with problems solving skills in real-life application exercises.
6. Graph linear equations in two variables using slope and intercept.
7. Solve systems of linear equations in two variables by graphing and algebra.
8. Solve quadratic equations.
9. Apply mathematical processes to polynomials and radicals.
10. Go on to MATH 1010 and succeed.

**Textbook and Other Expenses:** *Elementary Algebra*, third edition, by Tussy & Gufstason at a cost of about \$100 new and \$80 used. A scientific calculator (\$8-\$20) is recommended.

**Prerequisites:** MATH 0900 or ACT math score of 13 or higher.

**Prerequisite for MATH 1010:** You must receive a C (not C-) or better and take MATH 1010 within two years to use MATH 0930 as a prerequisite for MATH 1010. Retaking the placement test is another way to satisfy this prerequisite.

**Grading:**

<u>Point distribution</u>		<u>Percent needed for a specific grade</u>	
Tests (100 points each)	500 points	A = 93-100%	C = 72-76%
Quizzes	100 points	A- = 90-92%	C- = 69-71%
Homework	150 points	B+ = 87-89%	D+ = 64-68%
Multiplication Test	50 points	B = 83-86%	D = 60-63%
Chap Skills Checks (25 pts ea)	100 points	B- = 80-82%	D- = 55-59%
Final Exam	<u>200 points</u>	C+ = 77-79%	F = below 55%
Total possible points	1100 points		

**Unit Tests:** There will be five unit tests worth 100 points each. Read the Activity and Assignment Schedule and be aware of all test dates. There are no make-up tests. If a test is missed, a zero will be recorded which can be removed by using the retake option for one test. This means missing a test consumes the retake option. If more than one test is missed, a zero will be received for the additional missed test(s). If no tests are missed, you may retake one of the Tests 1-5. There is no retake option for Test 5. **If an emergency arises on test day, call your instructor and talk to him/her personally ASAP.** Leaving a message will not be adequate.

**Quizzes:** Quizzes will be given as time permits. They will have problems taken from or be similar to the homework on any sections covered since the last test. Also, quizzes may have problems taken from or be similar to problems on previous tests. **Quizzes cannot be made up for any reason.** Most quizzes will take about 10-15 minutes.

**Homework:** Homework is assigned daily and is due at the beginning of the next class meeting. Absenteeism is no excuse for not having the homework done on time. The Activity and Assignment Schedule gives sections to be covered each day and the specific assignment. Each section's homework will be collected and graded for effort and completion. All significant steps for each problem must be shown, numbered and neatly, or credit will not be given. Each section's homework will be worth 3 points. Late homework will receive 2 points and must be turned in before taking the test for which it was the preparation. No credit will be given for homework turned in after the skills check or test (whichever comes first) for which it was the preparation.

**Worksheets:** At times throughout the semester, we have determined a need for extra practice or review of some concepts. Worksheets will be counted as a quiz if done in class or as a homework if taken home. Worksheets cannot be made up.

**Multiplication Test:** The Multiplication Test is worth 50 points and has 100 multiplication facts from the 0-12's. You will be given 6 minutes to complete it. It can be retaken once each week if you need to increase your skill and score.

**Chapter Skills Checks:** Chapters 1, 3, 4, and 8 are essential for success in the next chapters. Therefore, a Skills Check will let you know if you need further study on the chapter. These are each worth 25 points. They must be taken on the date specified in the Activity and Assignment Schedule. Skills Checks cannot be made up for any reason. All homework on the chapter for the skills check must be turned in before the skills check is taken or that homework will not receive credit.

**Final Exam:** A comprehensive Final Exam worth 200 points will be taken in accordance with DSC's Final Exam Schedule. I am not authorized to change that time or day for any student, so please do not ask me to. A written request must be filed with the Dean Hinton in the BRN Building to make a change.

**Class Participation:** Some lessons and class periods will require students to work together or present problems on the board. These exercises will be graded and recorded as a quiz or homework score.

**Class Structure:** Most classes will have quizzes given, new material presented, old material reviewed, and assignments collected. Missing class means you will have to exert extra effort to grasp the material on your own which usually takes 2-3 times as much time as attending class. Also, missing class means missed quizzes for which a zero will be recorded. Some days may be devoted entirely to answering questions and group work. These days are especially valuable for test preparation. Do not skip any class period!

**Dishonesty:** Dishonesty will not be tolerated in any form. Any student cheating on a test will receive a zero for that test. Giving as well as receiving information is dishonest.

**Attendance:** There is no attendance grade. However, quizzes, tests, and group work are done only during your class meetings. Homework is collected in class. Absences will not allow you to earn those points. All information for the tests will be given in class. If you do not receive that information, you must get it by yourself from the text on your own. Sometimes, an absence is beyond your control (such as a subpoena, incarceration, hospital confinement, National Guard duty, school related activities, and field trips). You will know about most of these in advance and can make plans with me if they occur on a test day. Written documentation will be needed in order to be given the opportunity to remove or replace a score of zero for missed work.

**DRC:** If you are a student with a medical, psychological, or learning disability and need accommodations, contact Sherri Dial at the Disability Resource Center (652-7516) in the Student Services Center. The Disability Resource Center will determine eligibility of the student requesting special services and determine the appropriate accommodations related to the disability.

**Changes:** Although unlikely, this syllabus and/or the assignment schedule may be changed if deemed necessary by the instructor. All changes will be announced in class. Absenteeism is no excuse for not being aware of the changes.

**Library:** A copy of the text for in-house use only is at the Reserve Desk in the Library. Videos showing lessons on the main points of each chapter are at the Reserve Desk. If you miss a class, you need to watch the video segment that pertains to your missed lesson and complete the homework as assigned in the Activity and Assignment Schedule. There is a 48-hour take-home option on the videos.

**Writing Center:** The Writing Center is located on the first floor of the Browning Building if you need assistance with a written assignment in any class.

**Tutoring Center:** The Tutoring Center is located on the first floor of the Browning Building. Drop-in mathematics tutoring is available. The tutoring schedule is posted at the sign-in desk for the Tutoring Center.

**Respect for Others:** To avoid disrupting the work of others, please plan to arrive at class on time and be prepared to work (i.e., have your pencil, eraser, book, paper, homework, and calculator). Additionally, please feel free to offer your opinions and questions to the class, but do not carry on side conversations or otherwise prevent those around you from concentrating on the class work and discussions. Cell phones should be turned off during class. In general, students may not engage in an activity which the instructor deems disruptive or counter-productive to the goals of the class. Instructors have the responsibility to remove offending students from the class. Repetition of offensive behavior may result in expulsion from the class.

**Grade Record:** It is wise for you to keep a record of all graded work. All graded work (except the Final Exam) will be returned to you and should be kept until after the course grade has been awarded. If I have an error in my records, I will need to see the original graded work to make a change. The following worksheet will aid you in tracking your progress:

Tests	Quiz scores				Homework	
1 _____	date	score	_____	_____	_____	_____
2 _____	_____	_____	_____	_____	_____	Ch 1 (21) _____
3 _____	_____	_____	_____	_____	_____	Ch 2 (21) _____
4 _____	_____	_____	_____	_____	_____	Ch 3 (15) _____
5 _____	_____	_____	_____	_____	_____	Ch 7 (12) _____
Retake # _____	_____	_____	_____	_____	_____	Ch 4 (21) _____
score _____	_____	_____	_____	_____	_____	Ch 5 (18) _____
						Ch 6 (21) _____
						Ch 8 (12) _____
						Ch 9 (6) _____
						5.7 (3) _____
				total _____		HW total _____
Test total _____	Mult Test		Chap Skills Checks			
	_____	_____	Ch 1	_____	_____	
	_____	_____	Ch 3	_____	_____	
	_____	_____	Ch 4	_____	_____	
			Ch 8	_____	_____	



# Math 0930- 51

## Fall 2006 Activity and Assignment Schedule

All assignments are due at the beginning of the next class meeting after they were assigned. In addition to these book assignments, some worksheets may be handed out. They will be due at the next class meeting unless otherwise specified. Absenteeism is no excuse for not having assignments done on time. Any of this schedule may be changed if deemed necessary by the instructor. Absenteeism is no excuse for not being aware of any changes.

Note: "9-71, eoo" means every other odd starting with 9; i.e. 9, 13, 17, 21, ...  
 "fifths" means 5, 10, 15, 20, ...

Date	Section & Topic	Minimal Assignment
8-22	Syllabus, VASA	
✓	1.2 fractions	p 18: 1-8, all & 9-93, eoo
8-24	1.3 real numbers	p 28: 1-12, all & 31-55, odd
✓	1.4 add real numbers	p 37: 9-75, eoo & 93, 94
✓	1.5 subtract real numbers	p 45: 5-79, eoo & 81, 83, 87, 92, 95, 98
8-29	1.6 mult & divide real numbers	p 55: 15-97, eoo
✓	1.7 exponents & order of operations	p 66: 23-119, eoo
✓	1.8 simplify expressions	p 76: 9-63, eoo & 69-85, odd
8-31	<b>Chapter 1 Skills Check (NO calculator)</b>	
9-5	2.1 solving equations	p 101: 25-85, eoo & 93, 95
✓	2.2 problem solving	p 111: 19-29, odd & 31-65, odd
✓	2.3 simplifying algebraic expressions	p 122: 25-115, fifths
9-7	2.4 more on solving equations	p 131: 25-100, fifths
✓	2.5 formulas	p 141: 12-15, all; 21-31, odd; 33-73, eoo & 79, 81, 83, 85, 99
✓	2.6 more problem solving	p 153: 5, 7, 9, 11, 13b; 21-37, odd & 38
9-12	2.6 mixture	p 157: 41, 44 & 49-63, odd

9-12

Review for Test 1

9-14

**Test 1 (calculator recommended unless otherwise noted)**

- 9-19 3.1 graphing p 190: 8, 11-18, all & 23, 28, 29, 37  
✓ 3.2 graphing linear equations p 204: 23, 27, 29, 31, 37, 41, 45, 49, 53  
✓ 3.3 more about graphing p 215: 25-49, eoo & 55, 57, 63, 65
- 9-21 3.4 slope p 225: 7, 9, 14, 15, 16, 17, 19, 23, 31, 35, 39, 43, 45, 55, 61
- 9-21 3.5 slope-intercept form p 238: 23, 31, 35, 39, 43 & 65-75, odd (graph by the method of your choice)

9-26

**Chapter 3 Skills Check (NO calculator)**

- ✓ 7.1 graphing systems p 518: 23-59, eoo
- 9-28 7.2 substitution p 528: 23-71, eoo & 76
- ✓ 7.3 elimination p 538: 25-69, eoo
- ✓ 7.4 problem solving p 550: 17-47, odd

10-3

Review for Test 2

10-3

**Test 2 (calculator permitted but not a graphing calculator)**

- 10-5 4.1 rules for exponents p 282: 11, 13, 15 & 43-115, eoo
- ✓ 4.2 zero & negative exponent p 291: 17-113, eoo
- 10-10 4.4 polynomials p 307: 21-53, odd
- ✓ 4.5 add & subt polynomials p 315: 19-79, eoo
- ✓ 4.6 multiplying polynomials p 323: 15-87, eoo & 93, 95, 99, 101
- 10-17 4.7 special products p 331: 17-65, eoo & 77-83, odd
- ✓ 4.8 division of polynomials p 339: 21-57, eoo & 61, 63, 69, 77, 81

10-19

**Chapter 4 Skills Check (NO calculator)**

- ✓ 5.1 GCF & factor by grouping p 360: 43-107, eoo

10-24	5.2	factor trinomials	p 372: 25-85, eoo
✓	5.3	more on factoring trinomials	p 382: 35-91, eoo
10-26	5.4	factoring special products	p 389: 17-81, eoo
✓	5.6	factoring strategy	p 399: 21-73, eoo (omit 27, 55, 61)
✓		Review for Test 3	
10-31		<b>Test 3 (calculator permitted, but not a graphing calculator)</b>	
11-2	5.7	quadratic equations	p 409: 21-85, eoo
✓	6.1	simplify rational expressions	p 430: 21, 23 & 43-67, eoo & 75, 79
11-7	6.2	mult & divide	p 438: 23-79, eoo
✓	6.3	add & subtract; LCD	p 448: 19-95, eoo
✓	6.4	more add & subt	p 456: 23-99, eoo
11-9	6.6	rational equations	p 474: 23-91, eoo
✓	6.7	applications	p 484: 21, 23, 25, 39, 41, 43, 45, 47, 57
✓	6.8	proportions	p 495: 25-93, eoo
11-14		Review for Test 4	
11-14		<b>Test 4 (calculator recommended unless otherwise noted)</b>	
11-16	8.1	square roots	p 581: 16-26, all; 27-83, eoo & 93, 95, 107
✓	8.2	simplify square roots	p 590: 11, 12; 23-91, eoo & 95, 97, 99
11-21	8.3	add & subtract	p 596: 5-10, all & 13-77, eoo
✓	8.4	mult & divide	p 605: 27-107, odd
11-28		<b>Chapter 8 Skills Check (NO calculator)</b>	
11-28	9.1	square root & complete the square	p 641: 19-75, eoo
11-30	9.2	Quadratic Formula	p 651: 21-45, eoo & 49-61, odd

- 11-30 9.2 applications p 652: 65, 69, 73, 74
- ✓ 5.7 applications p 410: 89, 91, 95, 97, 101, 103
- 12-5 Review
- 12-5 **Test 5 (calculator recommended unless otherwise noted, but not a graphing calculator)**
- 12-7 **Retake or Makeup one test - Test 1-5**
- 12-12 Review for Final Exam
- 12-14 **Final Exam (calculator recommended unless otherwise noted - but not a graphing calculator)**