# Math 1050 College Algebra (CRN 22762) Spring 2008 MTRF 8:00~8:50 NI B 133 

INSTRUCTOR:<br>Dr. Clare Banks, banks@dixie.edu Office: NIB 138 Phone: 652-7982<br>Office Hours: TR 9~9:50, MWF 10~11:50 and by appointment.<br>TEXT :<br>Lial, M., Hornsby, J., \& Schneider, D.(2009), College Algebra, MA: Pearson/Addison Wesley

PREREQUISITES: C or better in Math 1010 or ACT Math score of 23 or higher.

| CALCULATOR: | A graphing calculator is required. You are not allowed to share calculators during tests or quizzes. The model TI-83 Plus will be used in class. I highly recommend a TI-83 Plus, a TI-84, or a TI-89 calculator (for Calculus-bound students) |
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| COURSE WORK: | The student's final grade will be determined by her/his performance on homework, midterm exams, attendance, and the final exam. <br> - Final Exam: Wednesday, April 30 ${ }^{\text {th }}$ 10:00 ~12:00 AM <br> The exam will be cumulative. <br> - Homework: Homework will be assigned and collected every Friday. The homework may be graded or just checked off. If it receives a check mark, that will indicate full credit. Do not hand in incomplete homework. Most of the time, a list of answers is not sufficient, you must show work. Check your answers in the back of the text when possible. Clearly label your homework with chapter and section numbers. Start each section with a clean page. <br> - Exams: There will be 7 exams. Each exam will be worth 100 points. No makeup exams will be given except in the case of a documented illness. The lowest test score will be dropped. <br> - Attendance: Attendance is essential and roll will be taken <br> - Grading: Final $-20 \%$, Exams $-60 \%$, HW $-15 \%$, Attendance $-5 \%$ |
| GRADES: | Grades will be assigned as follows: A(94~100\%), A-(90~93\%), B+(87~89\%), B(83~86\%), B-(80~82\%), C+(75~79\%), C(70~74\%), C-(65~69\%), D+(60~64\%), D(55~59\%), D-(50~54\%), F(0~49\%) |
| 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 6527516; we are located in the Student Services Center, Room \#201 of the Edith Whitehead Building. |

DMAIL: Important class and college information will be sent to your Dmail email account. This information includes your DSC bill, financial aid/scholarship notices, and 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 Dmail email account. If you don't know your user name and password, go to www.dixie.edu and select "Dmail," for complete instructions. You will be held responsible for information sent to your Dmail email, so please check it often.

## ACADEMIC DISCIPLINE If cheating or disruptive behavior occurs the instructor will follow academic discipline procedures 34.1 \& 34.2 , as explained at http://www.dixie.edu/humanres/policy/sec3/334.html

## OBJECTIVES:

All classes in mathematics at Dixie College support the general education goal 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.

Math 1050 is designed for students majoring in science or engineering who will need Calculus and/or Physics. Upon successful completion of this course, the students will demonstrate through testing the ability to:

- Apply functional notation.
- Determine symmetries that exist in the graph of an equation.
- Graph polynomial functions and find their intercepts, maxima, and minima.
- Analyze the key components of the graph of polynomial and rational functions.
- Compute the composition and inverses of functions.
- Graph exponential and logarithmic functions.
- Apply properties of logarithms and exponents in simplifying expressions and solving equations.
- Solve systems of linear equations using substitution, elimination, matrices, and Cramer's rule.
- $\quad$ Solve non-linear systems of equations and inequalities.
- Find terms and sums of terms of arithmetic and geometric sequences and series.
- Compute the terms of a binomial expansion.

Tentative (Subject to Change)

| MON | TUE | THU | FRI |
| :--- | :--- | :--- | :--- |
| 5 Jan | 6 | 8 | 9 |
| R3 | R4 | R5 | R6 |
| 12 | 13 | 15 | 16 |
| R7 | Review | Exam 1 | $1.1,1.2$ |
| 19 | 20 | 22 | 23 |
| No Class | 1.3 | 1.4 | 1.5 |
| 26 | 27 | 29 | 30 |
| 1.6 | 1.7 | 1.8 | Review |
| 2 Feb | 3 | 5 | 6 |
| Exam 2 | $2-1,2.2$ | $2-3$ | $2-4$ |
| 9 | 10 | 12 | 13 |
| 2.5 | 2.6 | 2.7 | 2.8 |
| 16 | 17 | 19 | 20 |
| No Class | Review | Exam 3 | 3.1 |
| 23 | 24 | 26 | 27 |
| 6.1 | 6.2 | 3.5 | 3.6 |
| 2 March | 3 | 5 | 6 |
| Review | Exam 4 | 4.1 | 4.2 |

## Homework Problems

| R. 3 | 11~27eoo, 33~89eoo |
| :---: | :---: |
| R. 4 | 1~73eoo, 79~103eoo |
| R. 5 | 1~69еоо |
| R. 6 | 1~97eoo |
| R. 7 | 1~85eoo, 99, 101, 103 |
| 1.1 | 1~9o, 13~65eoo |
| 1.2 | 1~110, 15~39eoo, 17, 25 |
| 1.3 | 1~7o, 9~77eoo, 83, 87 |
| 1.4 | 1~9o, 13~77eoo |
| 1.5 | 1~50, 9~45eoo, 57 |
| 1.6 | 1~97eoo |
| 1.7 | 1~53eoo, 55~59, 61~77eoo, 95 |
| 1.8 | 1~8, 9~65eoo, 67~71, 73~89eoo |
| 2.1 | 13~57eoo |
| 2.2 | 3~27eoo, 37~49eoo |
| 2.3 | 1~13eoo, 17~22, 23~83eoo |
| 2.4 | 1~6, 9~21eoo, 25~28, 31~55eoo, 59~65 |
| 2.5 | 1~4, 5~57eoo |
| 2.6 | 1~10, 11~47eoo, 45, 49 |
| 2.7 | 1~37o, 41~65eoo, 67~73 |
| 2-8 | 1~85eoo |
| 3-1 | 1, 3, 5~8, 12, 13~25o, 27~46, 47~59eoo |
| 6-1 | 1~29eoo, 31~45o, 51, 53 |
| 6-2 | 1-25eoo, 33, 43, 48 |
| 3-5 | 9~17, 19, 21 |
| 3-6 | 1, 3, 7~11, 11~39eoo, 25 |


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| :--- | :--- | :--- | :--- |
| 9 | 10 | 12 | 13 |
| 4.3 | 4.4 | 4.5 | 4.6 |
| 16 | 17 | 19 | 20 |
| No School | No School | No School | No School |
| 23 | 24 | 26 | 27 |
| Review | Exam 5 | 5.1 | 5.3 |
| 30 | 31 | 2 Apr | 3 |
| 5.5 | 5.6 | Review | Exam 6 |
| 6 | 7 | 9 | 10 |
| 7.1 | 7.2 | 7.3 | 7.4 |
| 13 | 14 | 16 | 17 |
| 7.6 | 7.7 | Review | Exam 7 |
| 20 | 21 Final | $23 F i n a l$ | 24 |
| VASA | Review | Review |  |
| 27 | 28 | 30 | 1 May |
|  |  |  |  |


| 4-1 | 1~17o, 19~26, 35~79eoo, 77 |
| :---: | :---: |
| 4-2 | 1~25eoo, 49~77eoo, 71, 75, 83 |
| 4-3 | 1~29o, 59~87o, 91 |
| 4-4 | 1~9, 13~81eoo |
| 4-5 | 1~69eoo, 71~75, 77 |
| 4-6 | 1~4, 5~41eoo |
| 5-1 | 9~53eoo, 71~75, 69, 73, 77 |
| 5-3 | 1~45eoo, 61, 63, 73, 77 |
| 5-5 | 1~37eoo, 47, 51, 55 |
| 5-6 | 1~17eoo, 29~45eoo, 71, 73, 75, 79 |
| 7-1 | 7~43eoo, 53~69eoo, 25, 77 |
| 7-2 | 1~61eoo, 69, 73 |
| 7-3 | 1~77eoo |
| 7-4 | 1~45eoo, 47, 49 |
| 7-6 | 1~61eoo |
| 7-7 | 1~33eoo, 35 |

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

