

COLLEGE ALGEBRA/PRECALCULUS

MATH 1050 SPRING 2009

CRN# 23148

M,Tu,Th,F 11AM -11:50AM (NIB 107)

Jan. 05 2009 - May. 01 2009 (4 credit hours)

Instructor: Jie Liu

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Office Room #: NIB147

Office Hours: 8:30-9 daily, M 12-2:30PM, T 12-1PM
W 11-12 & 1-2:30 PM,

Office Phone #: 652-7983

Th 10-11 & 12-1PM
or by appointment

Website: http://new.dixie.edu/math/jie_liu.php

Course Prerequisites

C or better in Math1010 or ACT Math score of 23 or higher.

Required Materials

- Text Book: **College Algebra 10th** edition by Lial, Hornsby, Schneider.
- A graphing calculator is required. The TI-83 Plus will be used in class and is highly recommended.

Course Description

All mathematics classes at Dixie State College support the general education goal of the college, and 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:

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

Disabilities

If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your Professor(s) from the Disability Resource Center within the first two weeks of the beginning of classes. Students are recommended to contact the Center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability. You may call (435) 652-7516 for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973.

The Disability Resource Center (DRC) is located in the Student Services Center, Room #201 of the Edith Whitehead Building.

General Remakes

It is the responsibility of each student to make time each day to read the text, attempt all homework problems, study for exams, and get extra help. Your work should be neat and easily followed. Problems will be graded more for the work shown than for the final answer. Assignments should be considered a minimum and many students should work additional problems to reach mastery. Course schedules, assignments, and exam dates are subject to change as circumstances dictate.

Grades

Tests: 100 points each (total 600), Homework assignments: 10 points each (total 140)

Final comprehensive exam: 200 points, Total possible points: 940 points.

Grades will be based on the ratio of the number of points earned by the student to the total number of points possible on all assignments and examinations.

Grades will be assigned as follows: **A** (92-100%), **A-** (89-92%), **B+** (86-89%), **B** (82-86%), **B-** (79-82%), **C+** (76-79%), **C** (72-76%), **C-** (69-72%), **D+** (66-69%), **D** (62-66%), **D-** (59-62%), **F** (0-59%)

Examination

Each student is expected to take the examinations as scheduled in the syllabus. Make-up exams will be given at the discretion of instructor, and only if prior arrangements have been made.

Dmail

All information sent from the college or the instructor will be sent to your Dmail account. You MUST check that email account frequently. You are responsible for knowing what is contained within those messages.

Important dates/deadlines

Important dates /deadlines can be found in the following link.

<http://www.dixie.edu/reg/calendar.html>

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 Center - <http://new.dixie.edu/tutoring/>

Assignments and Tentative Schedule

Homework assignments are to be done each day, but will only be collected once a week. Homework assignments are due at the beginning of the first class (normally Monday) of each week. Points will be deducted by two points per day for late homework. When you turn in your homework, please put your homework in order with a cover page and staple them together. On the cover page, please write your name, class meeting time, and homework number.

| Date | Section | Assignments |
|-----------------------|-------------------------|--|
| Week 1 | | |
| M 1/05 | R.3 | 11-27 EOO, 33-89 EOO |
| T 1/06 | R.4 | 1-73 EOO, 79-103 EOO |
| Th 1/08 | R.5 | 1-69 EOO |
| F 1/09 | R.6 | 1-97 EOO |
| Week 2 (Hwk 1) | | |
| M 1/12 | R.7 | 1-85 EOO, 99,101,103 |
| T 1/13 | Review | |
| Th 1/15 | Test 1 (Chap. R) | |
| F 1/16 | 1.1 | 1-65 EOO, 3,7 |
| Week 3 (Hwk 2) | | |
| M 1/19 | Holiday (No Class) | |
| T 1/20 | 1.2 | 1-11 ODD, 15-39 EOO, 17,25 |
| Th 1/22 | 1.3 1.4 | 1.3: 1-77 EOO, 3,7,83,87 1.4: 1-77 EOO, 3,7,31 |
| F 1/23 | 1.5 | 1-45 EOO, 3,57 |
| Week 4 (Hwk 3) | | |
| M 1/26 | 1.6 | 1-77 EOO,27,93,97 |
| T 1/27 | 1.7 | 1-53 EOO, 55-59 ALL, 61-77 EOO, 95 |
| Th 1/29 | 1.8 | 1-8 ALL, 9-65 EOO,81,85,89 |
| F 1/30 | Review | |
| Week 5 (Hwk 4) | | |
| M 2/02 | Test 2 (Chap. 1) | |
| T 2/03 | 2.1 | 13-57 EOO(X41) |
| Th 2/05 | 2.2 | 3-27 EOO, 37-49 EOO |
| F 2/06 | 2.3 | 1-13 EOO, 17-22 ALL, 23-83 EOO |
| Week 6 (Hwk 5) | | |
| M 2/09 | 2.4 | 1-6 ALL, 9-21 EOO, 25-28 ALL, 31-55 EOO, 59-65 ALL |
| T 2/10 | 2.5 | 1-4 ALL, 5-57 EOO, 59 |
| Th 2/12 | 2.6 | 1-10 ALL, 11-47 EOO, 45, 49,50 |
| F 2/13 | 2.7 | 1-69 EOO, 3,15,31,67, 68,70,71,72 |
| Week 7 (Hwk 6) | | |
| M 2/16 | Holiday (No Class) | |
| T 2/17 | 2.8 | 1-85 EOO |
| Th 2/19 | Review | |
| F 2/20 | Test 3 (Chap. 2) | |

| Week 8 (Hwk 7) | | |
|---|--|--|
| M 2/23 | 3.1 | 1,3,5-8 ALL,12,13-22 ODD, 37-46 ALL,47-59 EOO,28,30,67 |
| T 2/24 | 3.2 | 1-33 EOO,15,41,43,45 |
| Th 2/26 | 3.3 | 5,7,9,17,19,21,27,49 |
| F 2/27 | 6.1 | 1-41 EOO,31,39,51,53(X13,17) (last day to drop/audit) |
| Week 9 (Hwk 8) | | |
| M 3/02 | 6.2 | 1-57 EOO,14,30 |
| T 3/03 | 3.6 | 1- 53 EOO,31,36 |
| Th 3/05 | Review | |
| F 3/06 | Test 4 (Chap. 3, 6.1, 6.2) | |
| Week 10 (Hwk 9) | | |
| M 3/09 | 4.1 | 1-17 ODD, 19-26 ALL, 35-79 EOO, 77 |
| T 3/10 | 4.2 | 1-25 EOO, 49-77 EOO,71,75,83 |
| Th 3/12 | 4.3 | 1-29 ODD,59-87 ODD,91 |
| F 3/13 | 4.4 | 1-81 EOO(X57), 3,7,47 |
| Week 11 | | |
| 3/16-3/20 | Spring Break (No Class) | |
| Week 12 (Hwk 10) | | |
| M 3/23 | 4.5 | 1-77 EOO,12,23,39,60,71,75 |
| T 3/24 | 4.6 | 1-4 ALL, 5-41 EOO(X17),20 |
| Th 3/26 | Review | |
| F 3/27 | Test 5 (Chap. 4) (last day for complete withdrawal) | |
| Week 13 (Hwk 11) | | |
| M 3/30 | 5.1 | 9-53 EOO,69,73,77,87 |
| T 3/31 | 5.2 | 17-37 EOO, 53, 61 |
| Th 4/02 | 5.3 | 1-45 EOO, 61,63,65,75 |
| F 4/03 | 5.5 | 1-37 EOO,47,51,55 |
| Week 14 (Hwk 12) | | |
| M 4/06 | 5.6 | 1-33 EOO,41,43,44 |
| T 4/07 | 7.1 | 1-49 EOO,15,19,27 |
| Th 4/09 | 7.2 | 1-49 EOO,47 |
| F 4/10 | 7.3 | 1-69 EOO,27,39 |
| Week 15 (Hwk 13) | | |
| M 4/13 | Review | |
| T 4/14 | Test 6 (Chap. 5 & 7) | |
| Th 4/16 | 7.4 | 1-45 EOO, 42,47,49 |
| F 4/17 | 7.6 | 1-45 EOO, 42,47,49 |
| Week 16 (Hwk 14) | | |
| M 4/20 | 7.7 | 1-33 EOO, 35 |
| T 4/21 | Review for final | |
| Th 4/23 | Review for final | |
| Final Exam: Monday, April 27, 10:00AM - 12:00 Noon | | |
| May 1st - Commencement | | |