

College Algebra/Pre-Calculus (4.0 credits) CRN 45120

This course fulfills the General Education Mathematics requirement for students majoring in Business, Elementary Education, Health Sciences, Science, and other majors.

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Date Range: August 24, 2015 – December 11, 2015

MyMathLab Course ID #: liu99205

Prerequisite: MATH 1000 or Math 1010 (Grade C or higher) within two years of enrollment in this course; OR ACT or equivalent placement score 23 or higher within two years of enrollment in this course; OR CPT score of 89 or higher within the last two years of enrollment in this course.

Course 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.

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

Class Structure: This section will have an extensive computer based component. This means all homework, reviews, and tests will be done, checked and submitted to the instructor through a computer program called MyMathLab (MML). You will need access to a computer with internet for daily assignments. Computer labs on campus are available to those students who do not have internet access.

- **To register for MyMathLab (MML),** go to <http://www.mymathlab.com/> and
 - ✓ Under the heading "Register", click "Student".
 - ✓ When you are asked for the **COURSE ID** enter **liu99205**
 - ✓ Follow the instructions to either create an account, or sign in if you have an existing account. If you are creating a new account, you will need to purchase a student **ACCESS CODE** from either the publisher as you are registering or ahead of time from the bookstore. Check both places to see which is less expensive.
 - ✓ When you enter your **email account**, please make sure you use the email that you check the most often.
 - ✓ If you have questions, please go to <http://www.pearsonmylabandmastering.com/northamerica/students/get-registered/index.html> and watch the video found by scrolling towards the bottom of the screen or you may contact customer support service (<http://www.mymathlab.com/student-support>).
 - ✓ A 14-day free trial is available through the MML website.

eTextbook and Other Expenses: Software based on: **College Algebra 11/e**, by Lial, Hornsby, Schneider, Daniels (not required) but you need to purchase an access code for MyMathLab (Cost approx. \$95) A scientific calculator (\$8-\$20) is recommended; however, you may use the calculator in MyMathLab. Your instructor will be using the TI 30 XII S calculator.

Homework: Assignments are to be completed in MML. Due dates are also posted in MML.

- You must score a **minimum of 70%** on your homework sets in order to access the test associated with those sections.
- You get three attempts to get a problem correct. If after the third attempt you still have not gotten the problem correct, you may request a similar problem to be generated and graded by clicking on the “Similar Exercise” button at the bottom of the homework window. You are encouraged to repeat homework problems and obtain a perfect score before the due date.
- If you do not know how to solve a problem, you may select the “Help Me Solve This”, “View an Example”, or other help features in the right hand menu in the MML homework window.
- Your homework will be worth 15% of your overall course grade.
- It is very important that you keep current on the assignments.

Quizzes: Quizzes are to be completed in MML. Due dates are posted in MML. You will not be allowed to submit quizzes past the due date.

- No Minimum score is required on your quiz in order to access the test associated with the quiz.
- You get three attempts to get a problem correct.
- No help features are available for the quizzes. If you do not know how to solve a problem, please review your quiz by going into the gradebook and clicking on “review” next to the quiz’s title. Help features are available while you are reviewing the quiz. Once you know how to do the problems you missed try the quiz again.
- Your quiz will be worth 5% of your overall course grade.
- You are highly encouraged to do the quizzes to help you prepare for your tests.

Test Reviews: Test reviews are to be completed in MML. Due dates are also posted in MML.

- No minimum score is required on your test reviews in order to access the test associated with the reviews.
- You get three attempts to get a problem correct. If after the third attempt you still have not gotten the problem correct, you may request a similar problem to be generated and graded by clicking on the “Similar Exercise” button at the bottom of the homework window. You are encouraged to repeat review problems and obtain a perfect score before the due date.
- If you do not know how to solve a problem, you may select the “Help Me Solve This”, “Textbook” or other help features in the right hand menu in the MML review window.
- Your test review scores will count as homework scores.
- You are highly encouraged to do the reviews to help you prepare for your tests.

Participation: Each week except for test weeks and the week of the Thanksgiving Holidays you are required to “give or receive help” using the discussion boards set up in MyMathLab. Each week you can earn at most 10 participation points by posting a question or answering a question on that week’s topic. The first week you need to post in the “Introduce Yourself” discussion found in the “Start Here” area of MyMathLab and also post in Discussion 2 to earn a 10 participation points. Please read the “Give and Receiving help” handout for more detailed information regarding how to earn participation points and the guidelines you need to follow when you post a question or comment.

Tests: Five tests will be given. Each test will be 11% of your overall course grade. The lowest test score (percentage) can be replaced by the higher final exam percentage.

Final Exam: The final comprehensive exam worth 20% of your overall course grade must be taken in between **Monday Dec 14th to Wednesday 16th**.

Test/Exam Police: If you live in St. George or nearby, all tests must be taken in the Dixie State University Testing Center. If you are not located in St. George, please read the “Proctored Tests” section in MyMathLab. Be prepared to show your picture ID at all exams. You may take each test only once. Students are expected to take the tests as scheduled. You may not access the test after the due date. Make-up exams will NOT be given except in documented emergencies, such as death in immediate family, hospitalization (documentation required), active military duty, DSU-sponsored-events requiring mandatory attendance (proof of attendance required). You must notify your instructor immediately in the case of an emergency for consideration and get prior consent if not an emergency. You may not access other websites or wear

headphones while taking the exams. **Only non-graphing scientific calculators are allowed on tests.** Cell phones, iPads, Graphing Calculators, etc. may not be used as calculators on tests.

Grading Policy: Chapter Tests 11% each; Homework/Test Reviews 15%; Quizzes 5%, Final Exam 20%, Participation 5%

Letter grades will be assigned as follows:

A	94 – 100%	B	83 – 86%	C	70 – 74%	D	55 – 59%
A-	90 – 93%	B-	80 – 82%	C-	65 – 69%	D-	50 – 54%
B+	87 – 89%	C+	75 – 79%	D+	60 – 64%	F	0 – 49%

Dishonesty: Dishonesty will not be tolerated in any form. Any student cheating on a test will receive a zero. Giving as well as receiving information is dishonest, so be aware of those around you while taking tests. <http://www.dixie.edu/humanres/policy/sec3/334.html>. Instructors are required, by college policy, to report dishonesty to the student conduct committee.

Disability Resource Center (DRC): If you are a student with a medical, psychological, or learning disability or think you might have a disability and would like accommodations, contact the Disability Resource Center (652-7516) in the North Plaza. The Disability Resource Center (<http://dixie.edu/drcenter/>) will determine eligibility of the student requesting special services and determine the appropriate accommodations related to their disability.

Library: A copy of the text and complete solutions manual for in-house use only are at the Reserve Desk in the Library. For more information concerning the library and hours of operation go to <http://library.dixie.edu>

Writing Center: The Writing Center is located on the fourth floor of the Holland Centennial Commons if you need assistance with a written assignment in any class. For more information go to http://dixie.edu/english/dsc_writing_center.php

Tutoring Center: The Tutoring Center is located on the fourth floor of the Holland Centennial Commons. Drop-in mathematics tutoring is available. More information is available at <http://dsc.dixie.edu/tutoring/index.htm>

Testing Center: <http://dixie.edu/testing>

Computer Lab: The Computer Lab is located in the Smith Computer Center. For more info go to <http://dixie.edu/cit/cis/>

Dmail: You are required to frequently check your Dmail account. Important class and university information will be sent to your Dmail account, including DSU bills, financial aid/scholarship notices, notices of cancelled classes, reminders of important dates and deadlines, and other information critical to your success at DSU and in your courses. To access your Dmail account, visit go.dixie.edu/dmail. If you do not know your Dmail username or you have forgotten your PIN, visit go.dixie.edu/mydixie and follow the respective instructions.

Withdrawing from or dropping a class: If you never attend a class, the instructor may withdraw you from it. If you attend even one day, the instructor cannot withdraw you from the class. Since not all instructors will withdraw you for non-attendance, you should take care of that transaction for yourself by going to the registration window. If you quit attending and do not withdraw from the class, you will receive an F or WF which averages into your GPA as an F.

Important Dates: <http://new.dixie.edu/reg/?page=fall2015>

Changing your schedule: It is your responsibility, as the student, to ensure the accuracy of your class schedule. Be sure to check at the beginning of the semester and after every change you make to your schedule. Run a hard copy and keep it!

Complete Withdrawal: Dropping all classes by phone or online does not withdraw you from the college and you may receive all F's. You must contact the Advisement Center, complete a withdrawal form, and surrender your student ID card

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 and/or sent to you via MML.

Recommended Schedule - Math 1050 College Algebra - Fall 2015

Date	Day	Assignment	Date	Day	Assignment
Aug 24	Mon	Orientation	Oct 14	Wed	3.5 Rational Functions
Aug 25	Tues	R.4 Factoring Polynomials	Oct15-16	Th-F	Fall Break
Aug 26	Wed	R.5 Rational Expressions	Oct 19	Mon	3.6 Variation
Aug 27	Thurs	R.6 Rational Exponents	Oct 20	Tues	Catch Up Day/Review
Aug 31	Mon	R.7 Radical Expressions	Oct 21	Wed	Review/ Chapter 3 Test
Sep 1	Tues	1.1 Linear Equations	Oct 22	Thurs	4.1 Inverse Functions Optional 2nd Day: Cha3 Test
Sep 2	Wed	1.2 App. & Modeling with Lin. Eq.	Oct 23-25	F-Su	MOptional Days for Ch3 Test
Sep 3	Thurs	1.3 Complex Numbers	Oct 26	Mon	4.2 Exponential Functions
Sep 7	Mon	NO SCHOOL	Oct 27	Tues	4.3 Logarithmic Functions
Sep 8	Tues	1.4 Quadratic Equations	Oct 28	Wed	4.4 Change of Base
Sep 9	Wed	1.5 App. & Modeling with Quad Eq.	Oct 29	Thurs	4.5 Exp and Log equations
Sep 10	Thurs	1.6 Other Eq. Types & App.	Nov 2	Mon	4.6 Exp Growth and Decay
Sep 14	Mon	1.7 Inequalities	Nov 3	Tues	Catch up Day/Review
Sep 15	Tues	1.8 Absolute Value Equ & Inequ	Nov 4	Wed	Review/ Chapter 4 Test
Sep 16	Wed	Catch Up Day/Review	Nov 5	Thurs	5.1 Systems of Linear Equations Optional 2nd Day: Ch4 Test
Sep17-20	Th-Sun	Chapter 1 Test	Nov 6-8	F-Su	Optional Days for Ch4 Test
Sep 21	Mon	2.1 Rect. Coordinates & Graphs	Nov 9	Mon	5.3 Determinants
Sep 22	Tues	2.2 Circles	Nov 10	Tues	5.4 Partial Fractions
Sep 23	Wed	2.3 Functions	Nov 11	Wed	5.5 Nonlinear Systems of Equ.
Sep 24	Thurs	2.4 Linear Functions	Nov 12	Thurs	5.6 Sys. of Inequa. and Lin. Prog
Sep 28	Mon	2.5 Equations of Lines & Lin. Models	Nov 16	Mon	6.1 Parabolas
Sep 29	Tues	2.6 Graphs of Basic Functions	Nov 17-18	T-W	6.2 Ellipses
Sep 30	Wed	2.7 Graphing Techniques	Nov 19	Thurs	Catch Up Day/Review
Oct 1	Thurs	2.8 Fun. Operation & Composition	Nov 23	Mon	Review/ Chapter 5-6 Test
Oct 5	Mon	Catch up day/Review	Nov 24	Tues	7.1 Sequences & Series/ Optional 2nd Day: Ch5-6 Test
Oct 6	Tues	Review/ Chapter 2 Test	Nov 25-27	W-F	NO SCHOOL, Thanksgiving
Oct 7	Wed	3.1 Quadratic Functions & Models Optional 2nd Day: Ch2 Test	Nov 30	Mon	7.2 Arithmetic Sequences Optional 3rd Day: Ch5-6 Test
Oct 8	Thurs	3.2 Synthetic Division Optional 3rd Day: Ch2 Test	Dec 1	Tues	7.3 Geometric Sequences Optional 4th Day: Ch5-6 Test
Oct 9-11	F-Sun	Optional days for Ch2 Test	Dec 2	Wed	7.4 The Binomial Theorem
Oct 12	Mon	3.3 Polynomial Function Zeros	Dec 3	Thurs	7.6 Counting Theory
Oct 13	Tues	3.4 Poly: Graphs, App. and Models	Dec 7-10	M-Th	Final Exam Review
			Dec 14-16	M-W	Final Exam