

COLLEGE ALGEBRA

Course Outline

This syllabus gives a detailed explanation of the course procedures and policies. You are responsible for all of this information, and should ask your instructor if anything is unclear.



PREREQUISITES

This is not a beginning algebra course. The course presumes that the student has attained a B or better in Intermediate Algebra, or has an ACT math score of 22 or better, or has an equivalent level of preparation. Units 1 and 2 review the prerequisite material.



RESOURCES

The course materials packet *College Algebra Units 1-5* (Hawkinson) is available through Varney's or the K-State Union Bookstore. The web page below includes links to the Course Info, Textbook, Homework FAQs, Sample Quizzes, and *GCalc* software.

<http://www.math.ksu.edu/~dph/math100pilots/>



CALCULATOR

You will need a calculator with exponential and logarithmic capabilities, typically designated as "scientific" and having some combination of y^x , x , $\ln x$ and LN keys. A TI-30X IIB(S) is suggested. A graphing calculator is acceptable, but not required.



STUDY

Each class meeting will have lecture/discussion over topics as listed in the course schedule. A *Lecture Outline* for each lecture can be found in the course packet. The text for each lesson may be viewed by choosing **Course Text** on the web page above, and is designed to be read carefully by the student after the corresponding class presentation. These are then reinforced by the homework assignment. Question and Answer (Q&A) days are scheduled on a regular basis to provide assistance with the homework and course material. Please feel free to contact me in my office, by phone or by e-mail.



HOMEWORK

The homework questions for each lesson are located in the course packet; these should be done in the space provided in a neat, organized manner that is consistent with the methods discussed in the lectures and the text. **All lessons for a unit will be turned in for a grade when the quiz for the unit is given.** Each lesson *Exercises* set is worth 6 points. The homework for each lesson includes an *Investigation*, which is an extension of the lesson designed to help the student think independently about a selected topic. Each Investigation is worth 4 points. Show work that is consistent with the methods discussed in class - no credit will be given for answers only. (In particular, graphs are to be constructed using their properties as shown in the notes and text, not by copying a calculator display.) Late homework submitted within one week after the due date will receive half credit. **NOTE that the homework comprises 46% of the course grade.**



COMPUTER WORK

You will need to have access to a computer with a modern web browser having Flash, Javascript and Java enabled to complete the readings and applications for the course. A graphing utility is also included to show the impact of current technology on the study of mathematics. To use the software, choose **GCalc Software** on the web page above.



QUIZZES

You should plan on taking a quiz over each unit as listed in the course schedule. All questions are to be worked out in a manner consistent with the lectures and course text. (In particular, graphs are to be constructed using their properties as shown in the notes and text, not by copying a calculator display.) Each quiz is worth 30 points toward your final course grade. Three quizzes may be retaken for a better grade during the class meetings listed in the course schedule.



SAMPLE QUIZZES

A sample quiz for each unit is available in an interactive computer format by choosing **Sample Tests** on the web page above. The help files are particularly useful in reviewing the unit material. Note that these samples are meant only for practice, not an iron clad representation of a Unit Quiz.



GRADING

The total points possible for the course are as follows.

Quizzes (5@30 points)	150 points	
Homework (23@6 points)	138 points	
Investigations (23 @ 4 points)	92 points	
Final Exam	<u>120 points</u>	
	500 points	Total

A final course grade will be assigned according to the scale below.

A	450 to 500 points
B	400 to 449 points
C	350 to 399 points
D	300 to 349 points
F	less than 300 points



TIME REQUIREMENTS

Any 16 week course in a quantitative subject such as this requires a great deal of time investment on your part. Please be prepared to spend at least 8 hours per week studying for this course.



COURSE WEB PAGE

Announcements / Info / Homework Frequently Asked Questions (FAQ)

<http://www.math.ksu.edu/~dph/math100pilots/>



POLICY NOTES

⇒ If you have any condition (e.g. physical or learning disability) which will require academic accommodations, please notify the instructor during the first week of class.

⇒ Plagiarism and cheating are serious offenses and may be punished by failure on the exam, paper, or project, failure in the course and/or expulsion from the University.

More information about KSU Academic Honesty policies may be found at the following website.

[http:// www.ksu.edu/honor](http://www.ksu.edu/honor)

Dale P. Hawkinson	dph@math.ksu.edu
KSU - Holton 101E	(785)532-5386 office
Manhattan, KS 66506	(785)539-3377 home

COLLEGE ALGEBRA Spring Semester 2011

DATE	LEC	UNIT	LES.	TOPIC
M Jan 17		NO	CLASS	M. L. King Holiday
W Jan 19				Orientation
F Jan 21	1	1	1	Polynomials
M Jan 24	2	1	2	Factoring
W Jan 26	3	1	3	Algebraic Fractions
F Jan 28	4	1	4	Linear Equations & Inequalities
M Jan 31	5	1	5	Linear Graphs and Systems
W Feb 2				Q&A
F Feb 4				Quiz 1 - Unit 1 HW due
M Feb 7	6	2	1	Roots and Fractional Exponents
W Feb 9	7	2	2	Quadratic Equations
F Feb 11	8	2	3	Polynomial Equations
M Feb 14	9	2	4	Root and Fractional Equations
W Feb 16	10	2	5	Solving Equations Using Graphing Technology
F Feb 18				Q&A
M Feb 21				Quiz 2 - Unit 2 HW due
W Feb 23				Return Quiz 2 / Q&A
F Feb 25				Retake - Quiz 1 or 2
M Feb 28	11	3	1	Functions
W Mar 2	12	3	2	Functions & Word Problems
F Mar 4		No	Class	Instructor out of town
M Mar 7	13	3	3	Functions & Variable Inputs
W Mar 9				Q&A
F Mar 11	14	3	4	Functions & Graphs
M Mar 14	15	3	5	Interpreting Graphs
W Mar 16				Q&A
F Mar 18				Quiz 3 - Unit 3 HW due
Mar 21-25		No	Class	Spring Break
M Mar 28	16	4	1	Linear Functions & Models
W Mar 30	17	4	2	Quadratic Functions & Models
F Apr 1				Q&A
M Apr 4	18	4	3	Polynomial Functions & Models
W Apr 6	19	4	4	Rational Functions & Models
F Apr 8				Q&A
M Apr 11				Quiz 4 - Unit 4 HW due
W Apr 13	20	5	1	Exponential Functions
F Apr 15	21	5	2	Logarithmic Functions
M Apr 18				Q&A
W Apr 20	22	5	3	Exponential & Logarithmic Equations
F Apr 22	23	5	4	Exponential & Logarithmic Models
M Apr 25				Q&A
W Apr 27				Quiz 5 - Unit 5 HW due
F Apr 29				Return Quiz 5 / Final Exam Outline / Q&A
M May 2				Retake - Quiz 3 or 4
W May 4				Retake - Quiz 4 or 5
F May 6				Return Retakes / Q&A
F May 13				Final Exam - 11:50am - 1:40pm