

**MATH 1320
Summer 1 2016
College Algebra**

Instructor: Anthony Gruber

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Lectures: M-F 8:00-9:50 AM

Office Hours: M-F 10:00 AM – 12:00 PM

Text: Cynthia Young, College Algebra, 3rd edition.

Textbook Options (**All 3 options include access to the electronic version of the book**)

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(physical book and e-book)
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Prerequisites:

B in MATH/TSI 0302, C in a college level math, 3 on MPE, 610 on SATM, or 26 on ACTM

Purpose of Course:

This course is designated for a wide student body population. The course fulfills a set of learning objectives as established by the Texas Higher Education Coordinating Board for students whose major foundation is *not* a mathematical one, including: arts, business, earth sciences, humanities, life sciences, medical sciences, social sciences. Topics include: Real numbers, inequalities, matrices and determinants, theory of equations, binomial theorem, progressions, mathematical induction, polynomial functions, exponential and logarithmic functions. While the use of technology for class demos and practice is encouraged, this is not a technology-based course, and the students should not be expected to use a calculator in class or during examinations.

Expected Learning Outcomes:

M1320 satisfies the university core curriculum requirement in Mathematics: *"Students graduating from Texas Tech University should be able to demonstrate the ability to apply quantitative and logical skills to solve problems."* It meets the TTU general education student learning outcomes for mathematics that students will:

1. Apply arithmetic, algebraic, geometric, statistical and/or logical reasoning to solve problems.

In Math 1320 students will develop skills to: (1) solve linear, quadratic, rational, logarithmic and exponential equations; (2) graph and interpret functions; (3) formulate and solve problems that involve real world applications; (4) perform simple counting and probability computations. Student mastery of problem solving skills will be assessed through homework and examinations.

2. Represent and evaluate basic mathematical and/or logical information numerically, graphically, and symbolically

In Math 1320 students will learn how to adequately communicate mathematical information in writing, verbally and graphically, by using words, numerical answers, algebraic expressions, logical sentences, as well as graphs and diagrams.

3. Use mathematical and logical reasoning to evaluate the validity of an argument.

In Math 1320 students will learn how to identify, understand and apply mathematical and logical reasoning to theoretical and applied problems. In particular, attention will be devoted to the principle for constructing proofs by mathematical induction.

4. Interpret mathematical and/or logical models such as formulas, graphs, tables and schematics, and draw inference from them.

In Math 1320 students will learn to identify and interpret mathematical information contained in formulas, graphs and tables, in particular: (a) formulas containing linear, polynomial, rational, exponential and logarithmic functions; (b) applications that model real world problems via linear systems; (c) discrete arithmetic formulas and equations. The development of student interpretative and inference skills will be assessed through homework exercises and examinations.

Method of Assessment:

Online (Wiley Plus) Homework:	30%
Midterm 1:	20%
Midterm 2:	20%
Final Exam:	30%

register for Wiley Plus: www.wileyplus.com/class/516980

Attendance will be taken each day. Students with 3 or fewer unexcused absences at the end of the semester will be given the option to replace their lowest exam grade with their final exam grade.

Letter Grades:

The following cutoffs will be used to determine letter grades for the class.

A: 88 -100% **B:** 76 - <88% **C:** 64 - <76% **D:** 50 - <64% **F:** <50%

Calculator:

You may only use a plain scientific calculator on all homework and exams. You may NOT use a graphing calculator, a calculator on a cell phone, calculators that connect to the internet, and similar devices on any of the homework, midterms, or the final exam. If you have any questions about your calculator check with the instructor immediately.

Posting of Grades:

Grades will be posted on eLearning (Raiderlink) site.

Students are responsible for checking the accuracy of their posted grades.

Grades are final one week after they are posted. If a student disagrees with any grading, this must be discussed with the professor within one week of posting.

Exam Dates:

The dates for the midterm exams may be changed at the discretion of the Instructor.

Exam	Date and Time	Chapters	Percentage of Grade
1	Fri., June 17, 8:00-9:50 AM	0,1,2,3	20% of Final Grade
2	Fri., July 1, 8:00-9:50 AM	4,5,6	20% of Final Grade
Final	Fri., July 8, 8:00-10:30 AM	0-9 no 8	30% of Final Grade

Exam Policy:

Exam questions will focus on fundamental concepts and problem-solving skills. Exams will consist of definitions and short answer problems. All exams will be scored out of 100 points, but have ~120 points of material built into them – so it is the choice of the student as to what problems they wish to do. Students will need to provide their own paper for exams. **Be on time!** All exam scores will be reported on the eLearning site. **THERE WILL BE NO MAKE-UP EXAMINATIONS** unless you miss an examination for a valid verified reason (e.g. personal health problem, death in the family), schedule different time within one week. **The final exam is MANDATORY.** If you do not take the final exam, you will be unable to pass the course. If you have exam conflict for any reason, you must inform the Instructor **one week** before the scheduled exam so alternate plans can be made. The final exam date and time are listed online under **Common Final Exams** (not Exam Time or Class Time).

Absences:

Student attendance is expected for all lectures, the roll will be taken. Students are responsible for the information presented during lectures, including changes to course policies or schedules. **All absence notes must be delivered to the professor within ONE WEEK of the absence or no excuses will be accepted.**

Support for Student Learning:

Office Hours:

I am available during office hours to assist students with course work. Otherwise, you are welcome to knock on my door and if I have time I will assist you.

Texas Tech Operating Policies and Procedures: The following three items are brief excerpts. The complete policies are available at <http://www.depts.ttu.edu/opmanual/>.

Academic Honesty (OP 34.12):

It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension. "Scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

ADA Accommodation (OP 34.22):

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office at 335 West Hall or 806-742-2405.

Religious Holy Day Observance (OP 34.19):

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

Civility in the Classroom:

Texas Tech University endeavor to foster a classroom climate of mutual respect among students and between students and teacher. Mutual respect means that we should be tolerant of different ideas and varying opinions about topics of discussion in class, that we address each other respectfully and without interrupting while others are speaking, and that we do not engage in disruptive behavior in class. Signs of disrespect include, but are not restricted to: ringing cell phones (students must turn them off or leave them home), reading a newspaper or other material that is not part of a class assignment while in class, talking with classmates during class, eating and drinking in class***, and similar disruptive behaviors. Students who engage in disruptive behavior will be warned. Repeated disruptive behavior may result in the student being asked to leave the classroom.

***** I do not mind if you eat/drink in class, but please be considerate about it.**

Important University Dates:

June 7 th	First Class Day
June 10 th	Last day to drop (without penalty)
June 27 th	Last day to drop (with penalty)
July 7 th	Last Class Day
July 8 th	Final Exam

Tips for success in Math 1320:

1. Come to class
2. Keep up with the reading and lecture material.
3. Seek help IMMEDIATELY if struggling – don't fall behind.
4. **Study** the mathematics and understand what's going on, don't just brainlessly cookbook the problems.
5. Complete all homework assignments.
6. Practice the problems you have trouble with.
7. Don't be scared of the "algebraic" notation, it's just language. Try to find the main idea and identify what you need to do.