

# MATH 1306 – Spring 2020

## College Algebra for the Non-Scientist

Dr. Julie Sutton

Office hours will be in Zoom!  
If you want one-on-one email Dr.  
Sutton! JMSutton@UTDallas.edu

Syype/Zoom appointments available on Tuesday and Thursdays; just e-mail to schedule.

### Course Pre-requisites, Co-requisites, and/or Other Restrictions:

A score of 20% on ALEKS Math Placement Test

### Course Description:

This is a special section of College Algebra for students **not** continuing to Pre-Calculus or Calculus. It is acceptable, however, for students continuing to STAT 1342.

Students will learn some concepts and applications of set theory and logic. They will learn to analyze real-life situations using graphs, algebraic equations or other appropriate methods.

### Main topics to be covered (Chapter.Section):

1. The Art of Problem Solving (1.1, 1.2, 1.3)
2. Basic Concepts of Set Theory (2.1-2.4; Extension)
3. Introduction to Logic (3.1-3.5)
4. Number Theory (5.1, 5.4)
5. Cryptography via modular groups and arithmetic (notes)
6. ~~Counting Methods (10.1, 10.2, 10.3)~~

### Student Learning Outcomes/Objectives:

1. Students will apply set theory to solving practical problems such as analyzing results of a survey using Venn Diagrams.
2. Students will determine the truth value of a compound statement and use diagrams to analyze the validity of the argument.
3. Students will learn how to solve simple algebraic equations and inequalities and will know how to use them to problem-solve.
4. Given the algebraic equation of a straight line, or other appropriate data, students will graph the line on a Cartesian Coordinate Plane.

### Academic Calendar:

First Day Of Class	Monday, January 13
Labor Day	Monday, January 20
Census Day	Wednesday, January 29
<b>Exam I</b>	<b>February 20-21 (Th/Fri)</b>
Mid-Term Grades	Saturday, March 7
Spring Break	March 16-20
Drop Date	Thursday, April 22
Last Day of Class	Thursday, April 30
<b>Exam III</b>	<b>May 4-5 (Mon/Tues)</b>

### Required Materials:

Pearson's MyMathLab; access to the e-Text, *Thinking Mathematically*, 7<sup>th</sup> ed.  
MATH 1306 Course Notes Pack

You should bring the following to lecture:

- Non-programmable Calculator (TI-30X)
- Lecture Notes
- Scratch Paper

You will be working on problems during lecture, so please be on-time.

### Optional Materials:

- Graph Paper
- Ruler
- Colored Pencils
- Linking cubes

### Grading Scale:

$97 \leq x \leq 100$	A+
$93 \leq x < 97$	A
$90 \leq x < 93$	A-
$87 \leq x < 90$	B+
$83 \leq x < 87$	B
$80 \leq x < 83$	B-
$77 \leq x < 80$	C+
$73 \leq x < 77$	C
$70 \leq x < 73$	C-
$67 \leq x < 70$	D+
$63 \leq x < 67$	D
$60 \leq x < 63$	D-
$60 < x$	F

### Grading Policy:

Type	Number	% of Final Grade
Exam I or Qz	1	34%
Exam 3	1	33%
Homework	TBD	33%
Total:		100%

\*One (1) HW grade will be dropped.

### Assignment Descriptions:

~~Exams:~~ There will be three (3) cumulative exams. All exams will be held on the date listed in the

**Exams I / Quizzes:** Given the abrupt end to in-class meetings and the closure of the Testing Center, this portion of your grade will consist of EITHER the average of your 5 completed quizzes (with one dropped) or your Exam I grade (the higher will be taken).

**Exam III:** You must sign up for a day to take this exam in eLearning. Your choices are Wednesday May 6, 8-1045am or Friday, May 8, 11-145pm. This will be administered via eLearning and you will be expected to upload all your "scratch" work into eLearning via a question on the exam.

**Homework:** Homework will be assigned through the online portal MyMathLab. You will be given at least one (1) week to complete any online homework assignments. **You will also have at least one Written Homework to be uploaded to eLearning.**

Quiz #	Dates (ALL are Th/Fr)	Type of Quiz
0	Due 1/21	eLearning*
1	1/23-24	Online
2	1/30-31	Online
3	2/6-7	Paper
4	2/13-14	Online
5	3/5-3/6	Online
6	3/12-3/13	Paper
7	3/26-27	Online
8	4/2-3	Paper
9	4/16-17	Online
10	4/23-24	Paper

**The Testing Center:** Your quizzes and tests will be administered in the testing center. It is located in the SP2 building across Waterview Parkway from Residence Halls NW and N. You must register for a seat using RegisterBlast ([www.RegisterBlast.com/utdallas](http://www.RegisterBlast.com/utdallas)) at least 72 hours in advance. **The registration system closes 72 hours before an assignment begins, and you will not be able to make an appointment after that time.**

**The testing center no longer allows walk-in appointment; in the event that you do not make an appointment (or miss the day of your appointment) you will not be able to take the quiz or exam and will earn a 0.**

All student guidelines can be found here: <https://ets.utdallas.edu/testing-center/students/>. Please review these prior to your first quiz.

The hours of the testing center are as follows (check their website [ets.utdallas.edu/testing-center](http://ets.utdallas.edu/testing-center) for up-to-date information):

Date Range	Testing Center Status
1/13-1/31	M-F 8:30 am – 5 pm CLOSED Wednesdays
2/1-5/8	M, Tu, Th, F 8:30 am - 9 pm, W 5pm - 9pm Saturdays: 9 am - 1pm
All Semester	Closed Sundays

Violation of Testing Center policies (time limits, etc) may result in a referral to the Office of Student Conduct. You can find a list of all policies on the website for the Testing Center.

Note that the sole form of ID accepted at the Testing Center is your Comet Card. The Comet Card office is located in SSA 12.324 and is open M-Th 9 am-6 pm, F 8 am-5 pm, and Saturday 10 am - 1 pm. Replacement cards are \$20. (more information is available at [utdallas.edu/cometcard](http://utdallas.edu/cometcard)).

**Homework:** Homework will be assigned through the online portal MyMathLab. You will be given at least one (1) week to complete any online homework assignments. **You will also have at least one Written Homework to be uploaded to eLearning.**

How to access MML:

1. From the eLearning resource page click on the words, "Pearson MyLab/Mastering."
2. Click on "MyMathLab Course Home."
3. Read the terms and agreements; click "I accept"
4.
  - a. If you DO NOT already have a MML account associated with your UTDallas Email:
    - i. Click on the "Create" button and follow the screen prompts to setup your account.  
NOTE: Make sure that you select your UTDallas Email as your username. For example: [axc00815236@Utdallas.edu](mailto:axc00815236@Utdallas.edu). You will be given 3 options:
      1. Enter an access code (if you bought a hard copy of the book, new, you may have one of these)
      2. Pay for new access
      3. Request temporary access (this ends 10-14 days after the first day of class)
    - b. If you already have an MML account associated with your UTDallas Email, then enter your username and Password and click "sign in".
5. When your registration is complete, click on "Go To Your Course" to enter MML.

## Course and Instructor Policies:

**Make-up Exams & Quizzes:** Makeup quizzes are not offered except for University travel reasons, or other appropriate reasons per UTD policy (active duty military, religious holidays etc.) that have been submitted to Dr. Sutton at least 5 business days prior to the missed assessment.

**Calculators:** Only non-programmable, scientific calculators (TI-30X is suggested) are permitted on exams or quizzes (when allowed). You may not share a calculator with another student. Cell phones (or other electronic devices) may **not** be used on exams or quizzes.

**24-Hour Thinking Period:** When a graded assignment is returned in class there is a 24 hour “thinking” period to allow you to go over your assignment and evaluate the points you missed. Once this period has expired, you can bring your assignment in to Dr. Sutton’s office hours, or send her an email, to discuss how questions that you have regarding how to best approach the tasks from the assignment.

\*Students may ask for a re-grade of a quiz or exam when they feel it is warranted. This should be done in writing, with your reason for requesting the re-grade written on a blank sheet of paper stapled to the front of the original assignment to be re-graded and requests must be submitted no later than one week from the day the assignment was returned in class. If you submit a quiz or exam for a re-grade be aware that your entire assignment may be re-graded.

**You should refrain from writing on your exam (or quiz) after it is returned to you as this may invalidate any claims you have for a re-grade.**

**Attendance/Class Location:** Since we are meeting in an asynchronous fashion there is no longer an attendance/participation grade. However, it is expected that you actively add value to the discussion boards and post questions for the Zoom sessions. While I understand that you probably won’t attend all Zoom sessions “live” it is expected that you will watch the recordings.

**Electronics in Class:** Students should refrain from using personal technology in the classroom except when directed or allowed to do so by the professor. Students should never use technology for purposes that do not relate directly to the current session or create a classroom distraction. Failure to comply may result in your use of electronic devices in class being rescinded.

**E-Mail Correspondence:** When emailing Dr. Sutton, you must use your official UTDallas email account; email originating from another account (such as gmail) will not be acknowledged in accordance to UTDallas policies. Please include the following in the subject of your email: Course number and section, a basic overview of your purpose for emailing. For example:

*MATH 1306.001 MyMathLab Problem #24, Section 3.4*

In the body of your email include all information necessary to address your concern. If you are emailing for help with a homework problem from MyMathLab, please attach screenshots as necessary.

**Dr. Sutton generally responds to emails on week days from 8am-5pm. Responses over the weekend are limited.**

**Comet Creed:**

*This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:*

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

**Campus Carry:** For further information regarding Campus Carry, please go to <https://www.utdallas.edu/campuscarry/>.

**UT Dallas Syllabus Policies and Procedures:**

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

**My pledge to you, my student:**

The goals of this course can only be accomplished in a setting of mutual respect. Although the study of mathematics rarely lends itself to too much controversy, we must still provide a safe environment that is conducive to learning. All are welcomed and encouraged to actively participate in the learning of College Algebra, regardless of gender, race, nationality, native language, sexual orientation, gender identity, political ideology, parental status, and especially personal mathematics history. I look forward to getting to know each of you both as individuals and as a learning community.

**Students with Disabilities:**

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with me and allow one-week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion. OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at [studentaccess@utdallas.edu](mailto:studentaccess@utdallas.edu).

If you have a letter of accommodation for this class please email me with the subject line : <Student Name> Math 1306 Letter of Accommodation Discussion to schedule a private appointment where we will discuss your needs and how we can work together for your success in this course.

### Modifications for Spring 2020 (beginning 30 March)

In eLearning you will find four folders, each labeled with a Monday date. These folders contain the necessary information for the topics you are expected to work on that week. You will see several items for each topic:

- Completed notes from class
- Videos made by Dr. Sutton
- Extra resources made by other professors
- Discussion Board for each week
- Any written HW assignments

These resources are available to you along with any HW assignments in MML (or posted in the folder for you to complete and upload)

Each week we will hold two live (but recorded) Zoom sessions (at least 30 minutes in length) to discuss your questions these will be uploaded to eLearning. The time for each session will be voted on via the class GroupMe and the questions to be discussed will be from the discussion boards. It is important that you use these boards; even if you do not have questions you may be able to answer someone else's questions.

Dr. Sutton will also have online, drop in, office hours using Zoom. These will NOT be recorded so that you can ask questions freely. If you wish to talk privately with Dr. Sutton just send her an email.

Any links for Zoom meetings will be posted on eLearning prior to the meeting.

Changes to Grading Policies:

**Exams I / Quizzes:** Given the abrupt end to in-class meetings and the closure of the Testing Center, this portion of your grade will consist of EITHER the average of your 5 completed quizzes (with one dropped) or your Exam I average (the higher will be taken).

**Homework:** We will continue to utilize MML; you will have at least one written HW to be uploaded to eLearning. This assignment will be in the folder for the week when it is assigned.

**Exam III:** You must sign up for a day to take this exam in eLearning. Your choices are **Wednesday May 6, 8-1045am or Friday, May 8, 11-145pm**. This will be administered via eLearning and you will be expected to upload all your "scratch" work into eLearning via a question on the exam.

Week	Topics
30-Mar	Adding in bases other than 10
	Subtracting in a bases other than 10
	Changing from base 10 to another base
	Chapter 4 review
6-Apr	Intro to Caesar Ciphers
	Prime numbers
13-Apr	Modular Arithmetic
	Modular Arithmetic - 2 worlds/GCF and LCM
	Relatively Prime/Cyclic
20-Apr	Scales
	Scales and Inverse pairs
27-Apr	More Practice with Affine Ciphers