MATH FOR LIBERAL ARTS I

MATH 1332.002 | FALL 2023

Instructor: Dr. Jie Zeng

Office: RBN 4005

Email: jzeng@uttyler.edu
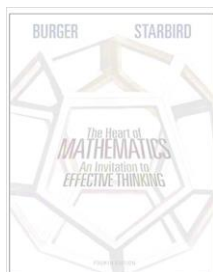
Classroom: RBN 4024

Meeting Time MWF 1:25pm – 2:20pm

Office Hours: MWF 3:00pm-4:15pm, by appointment.

Course Description

This is a very different math class than those that you have taken in the past. Those classes were about building your mathematics toolkit. You learned formulas and practiced computations. While we won't entirely abandon formulas and computations, they will be a minor part of this class. Instead, you will be exposed to some of the great ideas of mathematics. Some will be thousands of years old and some are currently being researched. Your verbal, logic and thinking skills will be needed more than your calculator. Topics may include logic and mathematical reasoning, sets, problem solving, applications, networks, graphs, geometry, finance, number theory and art. We will cover most of Chapters 1 – 4 and 7. Time permitting we may add other sections. The prerequisite for this class is an appropriate score on the ACT, SAT or TSI. Unfortunately, you cannot receive credit for both this class and MATH 1324 or MATH 1314.
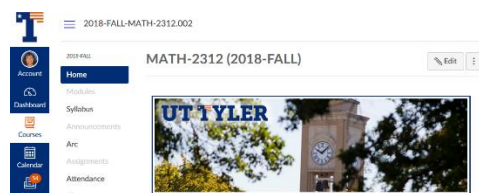
Textbook

The Heart of Mathematics: An Invitation to Effective Thinking 4th edition by Edward Burger and Michael Starbird, Wiley, ISBN-10 : 1118156595

ISBN-13 : 978-1118156599 (Loose leaf or Ring bound versions okay)

Website

You will be using Canvas. Go to www.uttyler.edu/canvas to log into Canvas using your regular patriots account. If you have enrolled in the course, you should have access to the website. You will find important documents, grades, lecture notes, and announcements on Canvas.

Attendance is mandatory. Notify Dr. Zeng in advance if you must miss a class, be late for a class or leave early. (Official University Policy: Class attendance is the responsibility of the student. When a student has a legitimate absence, the instructor may permit the student to complete missed assignments. In many cases class participation is a significant measure of performance, and non-attendance may adversely affect a student's grade. When a student's absences become excessive, the instructor may recommend that the student initiate a withdrawal.)

Learning Outcomes

At the conclusion of this course, you will be able to

1. Demonstrate knowledge in fundamental areas of higher mathematics including number theory, infinities, geometry, topology, fractals and other topics.
2. Apply mathematical theories and strategies to reason and solve real world problems.
3. Logically communicate mathematical ideas using clear and concise mathematical language, including terminology, notation and grammar.

Course Evaluation

At the end of the semester, you will find your final grade on my.uttyler.edu. It will also be posted on Canvas.
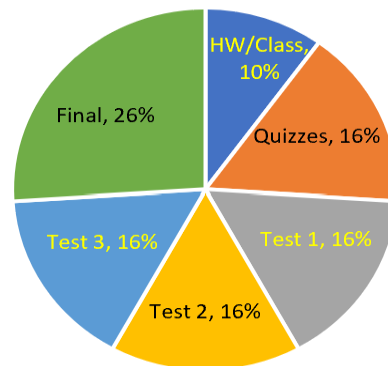A final course grade of
  90% is guaranteed to be at least an A
  80% is guaranteed to be at least a B
  70% is guaranteed to be at least a C
  60% is guaranteed to be at least a D.
All grades below 60% will be F.

HW/Class, 10%
Final, 26%
Quizzes, 16%
Test 3, 16%
Test 1, 16%
Test 2, 16%

The Plan

(10%): Homework will be assigned each class period. You will turn it in on Canvas by 11:59pm on Friday of the following week. A link will be posted on Canvas for you to submit your assignments. You must scan your homework and submit it as a pdf file. Photographs will not be accepted.

The problems will not be graded. You will be given points for completion. Problems on the weekly quiz will be very similar to the homework assignment. If you can do the homework assignment, you will do well on the quizzes. However, if your friend or tutor shows you how to do every problem and you just copy the answers without understanding, you will do poorly.

During class, there will be many activities and assignments. I will ask you to turn in these assignments at the end of class for credit. Additionally, you will be scored on your participation during class. I will ask many questions during class. I don't expect you to know the answers. I want you to try to figure them out during class. You will not be insulted or humiliated for getting incorrect answers, because you are not expected to know them. If you do know answers, from other classes or your own reading, please only answer one question during class. This will give you participation credit, but will allow others to receive theirs as well.

Striving for success without hard work is like trying to harvest where you haven't planted. __David Bly

QUIZZES **(16%)**: You can expect a quiz every Friday, excluding the first week and excluding the week of and after a test. To allow for emergencies and necessary absences, the lowest score will be dropped at the end of the semester. Make-ups will not be granted for quizzes. Athletes, please plan to take your quizzes before your trips. The quizzes will be easier than the tests.

It's not that I'm so smart, it's just that I stay with problems longer. __Albert Einstein

TESTS **(16% each) and** **FINAL EXAM** **(26%):** There will be three tests, held on Fridays, and a final exam. These exams will test your knowledge of the material taught in the class and practiced on the homework. The final exam will be comprehensive, but will emphasize material in the final weeks of the course. One uniform comprehensive make-up test will be given, and the lowest of the four tests will be dropped. See Important Dates below for the schedule.

Success is dependent on effort. __Sophocles

Final Exam: Monday, December 4, 12:30pm – 2:30pm

Please don't plan your travel to start before the date the final exam is scheduled!

Make-ups

Make-ups for **documented** absences that are **required** as part of a UT Tyler obligation (e.g. athletes participating in an event, participating in a debate contest, etc.) or for religious observation will be granted. For all make-ups of this type, prior notification of at least one week and documentation are required. Other make-ups are granted only in extreme cases such as hospitalization and at the sole discretion of the instructor.

Other Details

Calculator Policy: Generally, calculators will not be needed, but you are welcome to use non-graphing calculators with a square root key for all quizzes and tests. However, you may not use your phone as a calculator. Additionally, all work must be shown. If you would like to use a calculator, you have to bring it to the classroom.

Harassment, Bias, Discrimination:
NO TOLERANCE!
Check https://www.uttyler.edu/titleix/report-an-incident.php for more information.

Cell phones and other electronic devices: Please set your cell phones to silent mode. If you are expecting an emergency call, please notify the insturctor in advance, sit near the door, and answer the phone outside. You will not be allowed to wear electronic devices (except hearing aids) during an exam. During tests, cell phones must be turned off and placed in sight on your desk.

Calendar

AUGUST

MON	WED	FRI
21	23	25
First Day		
28	30	

Census date is 9/1
Drop date is 10/30
Homework is due every Friday.
No classes

SEPTEMBER

MON	WED	FRI
		1
		Quiz 1
4	6	8
Labor Day		Quiz 2
11	13	15
		Test 1
18	20	22
25	27	29
		Quiz 3

OCTOBER

MON	WED	FRI
2	4	6
		Quiz 4
9	11	13
		Test 2
16	18	20
23	25	27
		Quiz 5
30		

NOVEMBER

MON	WED	FRI
	1	3
		Quiz 6
6	8	10
		Test 3
13	15	17
20	22	24
THANKSGIVING		
27	29	

DECEMBER

MON	WED	FRI
		1
		Make up
4	6	8
Final		

The final will be held from 12:30pm to 2:30pm in our regular classroom unless you are notified otherwise.

If the entire university is shut down or moved to Zoom at any point this semester, there will be some changes to the syllabus. These are not options that you may choose otherwise.

1. If face-to-face classes are suspended for a short period of time, quizzes and tests will be moved so that we can take them in the classroom. In this case, you will be notified by email about new dates.

2. If it is decided that we will not return to face-to-face classes after the Thanksgiving break, the final will be changed to Test 4. It will not be comprehensive. It will only contain material that follows that which was tested on Test 3. Tests 1, 2 and 3 will each become worth 20% of your grade and Test 4 will be worth 10%. Quiz 7 will be a take-home quiz.

3. If face-to-face classes are suspended for a long period of time during the middle of the semester, some quizzes and tests may be converted to projects and the grading scale will be altered.