

# Syllabus for Mathematics 300, Section 001, Fall 2024

TIME AND PLACE: MWF LC 348

INSTRUCTOR: Ralph Howard

OFFICE: LC 352

PHONE: 777-7471

OFFICE HOURS: TWTH 2:30–3:30pm and by appointment.

TEXT:

*Mathematical Reasoning Writing and Proof, Version 3* by Ted Sundstrom. This is available free online at <https://scholarworks.gvsu.edu/books/24/> If you wish to get a hard copy it can found here at Amazon for a reasonable price (under \$30).

**Homework and quizzes:** Homework will be assigned each class period and there will be a quiz at the end of each class based on the homework. Sometimes problems will be collected, but you will be told which ones at the time they are assigned.

**Grading:** There will be three hour exams of 100 points each. Homework and quizzes will count for 100 points. The Final will count for 150 points. There will be in class quizzes that will be included as part of the homework grade. There will also be points for doing problems at the board in class.

Three midterms @100 points each	300 points
Final	150 points
Homework (includes quizzes)	100 points
Total	550 point

The grade will be based on the total number of points out of the 550 points. *Note that the homework and quizzes count as much as a test so it is important to spend time on the homework.* Letter grades will be assigned to all the tests. The last day to drop without a WF is Wednesday, November 6 and you should have a good idea of where you stand by then.

**There will be no make up exams.** If you miss a test, then your score on that exam is 80% of the average of your other test scores (including the final). As an example suppose you get 96 on the first two tests and 144 on the final but missed the third exam. Your average is then

$$\frac{96 + 96 + 144}{3.5} = 96.$$

So the score on the third exam is 80% of 96 which is 76.8. Assume your homework average is 90% and 90% of 100 is 90. Then the total for the class is

$$96 + 96 + 76.8 + 144 + 90 = 502.8 \quad \text{out of 550}$$

So the average is

$$= 91.4\%$$

and you still get an A. If you miss a second exam then the score on it is zero.

This can work to your advantage even if you do not miss an exam. Suppose you had test scores of 96, 96, 65 on the midterms and 144 on the final. In this case you would have been better off just not taking the third exam. In this case I would replace the 65 with 80% of your average on the other exams and the 65 would get replaced with 76.8.

Likewise **no late homework will be accepted.**

The exams will be on the following days:

Test 1 Wednesday, September 18

Test 2 Wednesday, October 23

Test 3 Wednesday November 20

Final Friday, December 13, 9:00am

**Learning Outcomes:** Successful students in Mathematics 300 will become familiar with the mathematical style of writing a proof and gain the necessary background for more advanced proof-based classes. Students will be able to use truth tables, quantifiers, basic concepts of set theory, mathematical induction.