

Syllabus for Math 3425, Foundations of Mathematics, Spring 2023

Class information

Class time: MWF 9:05AM–10:20AM
Room: Ratliff Building North 4027

Instructor information

Name: Prof. Joseph Vandehey
E-mail: jvandehey@uttyler.edu (**NOT** jvandehey@patriots.uttyler.edu)
Book: *Book of Proof*, third edition
by Richard Hammack
Free PDF version available at
<https://www.people.vcu.edu/~rhammack/BookOfProof/>
Office Hours: 1:00-4:00 PM Thursdays

We will use Canvas in this course. Homework assignments, grades, study guides, and even this syllabus will all be posted to Canvas.

1. COURSE DESCRIPTION

Study of elementary logic, intermediate set theory, relations, functions and countable number systems.

2. GRADING

Homework will contribute 70% of your overall class grade. Exams will contribute 30% of your overall class grade. Letter grades will be determined by standard cut-offs (90% and up for A, 80% to 90% for B, and so on). Any curve will only be to your benefit. **HOWEVER**, in order to obtain a C or better letter grade, you must obtain at least a C on both the homework and exam portions of your grade.

2.1. Homework. One homework assignment will be assigned every Friday and will be due the following Friday. In general, homework assignments are expected to be formatted in LaTeX and submitted as a PDF. (On occasion, if a problem does not allow for nice LaTeX formatting, I will allow for handwritten answers.) Part of the class will include instruction on how to use LaTeX.

Homeworks will be graded in part on completion and in part on correctness. As the focus of this course is on mathematical writing, proper grammar and formatting will be factored into your grade.

Examples from your homework answers may be used to illustrate concepts in lectures; however, your work will be anonymized.

To account for a hectic semester, the lowest homework grade will be dropped.

2.2. Exams. There will be two midterms as well as a final, all equally weighted. Midterms will take place February 17th (Week 6) and March 31st (Week 11). The exact date and time of the final are yet to be determined. Midterms will take place during our usual class period for the day and last the whole class period. Generally, exams will not be cumulative except in those ways that they must because we are building on knowledge from earlier in the semester.

Books, notes, calculators, phones, and any similar objects are not allowed for the exams.

3. A WORD ON PLAGIARISM AND CHEATING

Since the grading scheme of this course is different from the typical math class with so much focus on writing, we need to make it clear what is and is not cheating for the purposes of this course.

The following are all perfectly acceptable and even encouraged:

- Working together with other students in class to figure out how to solve a problem.
- Asking tutors *at the university* such as those at the MLC for help.
- Coming to office hours and asking me for help.

- Copying typesetting techniques for LaTeX off the internet. For example, suppose you want to write something like the following

$$\sum_{\substack{n>1 \\ n \text{ not square}}} \frac{1}{n}$$

but cannot figure out how to make multiple lines appear beneath the sigma notation. It is perfectly acceptable for you to Google how to do this, copy someone else's LaTeX code for this, and paste it into your TeX file.

The following are NOT allowed and will be considered cheating:

- Copying an answer from another student in class. (In other words, it is fine to work with your friends in class to figure out how to solve a problem, but the solution you write up needs to be your own.)
- Copying an answer from an answer key or website.
- Asking a service or website to solve a problem for you.

The penalty for cheating may range from a reduction in score on a homework assignment to failing the course, depending on the severity of the infraction.

4. MAKE-UP POLICY

For homework, if you have a preplanned absence (such as for a sporting event), please turn in your homework on the due date. If you have an unplanned absence, please let me know and the reason why, and you may be granted an extension.

For exams, if you have a preplanned absence, illness, or other major life event that causes you to miss an exam, please let me know and provide documentation, and we will set up an alternate test time.

5. ADDITIONAL COMMENTS

- Exceptions to the above rules will be made in the case of extreme circumstances (death in the family, severe illness, etc.).
- Cheating is strictly prohibited and carries severe consequences, up to and including expulsion from the university.
- If you believe I have graded an exam in error, come see me at the end of the class in which I handed it back. Leaving class with the exam means you accept the grade you have been given.
- Monday, January 23 is this semester's Census Date, the deadline for all registrations, schedule changes, and section changes.
- Important campus-wide policies concerning Students' Rights and Responsibilities, Grade Replacement/Forgiveness, State-Mandated Course Drop Policy, Disability Services, Student Absence due to Religious Observance, Student Absence for University-Sponsored Events and Activities, Social Security and FERPA Statement can be found on the course Canvas page.
- I frown upon the use of erasers on tests. They make me sad.

If you think your work is wrong, cross it out. Do not erase! I can't give partial credit for work that has been erased and I can no longer read.

This syllabus is a general guideline for the course. Deviations may be necessary as the semester progresses.