

TRANSITION TO ADVANCED MATHEMATICS

SYLLABUS

Spring 2021

Subhadip Chowdhury

Math 215

Course Info

- **Meeting Time:** 10:45 AM -11:35 AM MWF (EST)
- **Location:** Initially on MS Teams, then Taylor 206

Instructor Info

- **Instructor:** Subhadip Chowdhury
- **Email:** schowdhury@wooster.edu
- **Office:** Taylor 307
- **Office Hours:** Online, see [📅 Bookings page](#).

Teaching Assistant Info

- **TA:** Shivam Bhasin
- **Email:** sbhasin22@wooster.edu
- **Office Hours:** MW 8-9PM, F 1-2PM
- **Location:** Online on MS Teams.

§A. Overview of Math 215

Welcome to *Transition to Advanced Mathematics*! This course is designed to bridge the gap between Calculus and more abstract mathematics courses that rely heavily on proofs. We will explore several different mathematical topics, such as symbolic logic, set theory, number theory, relations, and functions. While this content should prove helpful to you in future mathematics courses, *the primary focus of the course is on developing skills that will enable you to effectively communicate clear and correct mathematical argumentation.*

§B. Pre-Requisites

Students must have completed MATH 108 or Math 111 (or AP/ equivalent credit) with a C- or better. If you have any questions about whether this is the right class for you, speak with me immediately.

§C. Learning Objectives & Goals

Upon successful completion of the course, you will be able to:

- Express in writing, knowledge of the terminology, concepts, basic properties and methodology of symbolic logic, set theory, relations and functions, mathematical induction, cardinality, and number systems.
- Formulate and correctly phrase mathematical statements, both verbally and in writing.
- Identify and critique the structure and logic of written proofs.
- Write a readable and mathematically rigorous proof.

Throughout this course we will improve our mathematical reasoning and writing skills, justifying all of our work with the appropriate theorems and conveying all solutions clearly through writing. This course fulfills the 'W' requirement toward graduation at The College of Wooster. *Each 'W' course focuses on writing for learning and communication in a particular discipline.*



§D. Textbook

The primary textbook for this course is **Book of Proof** (3rd edition) by Richard Hammack. It is available for free online: <https://www.people.vcu.edu/~rhammack/BookOfProof/>.


Here are some other (free) reference books you might find useful:

- [Mathematical Reasoning: Writing and Proof](#)
- [A Gentle Introduction to the Art of Mathematics](#)

§E. Technology and Communication Expectations

-  **Moodle.** Our course website can be reached directly through the following URL: <http://moodle-2021.wooster.edu/>. Look for “Transition to Adv Mathematics SP21” in your dashboard. Consider Moodle the central location for all aspects of our course. **Always check their first.**
-  **MS Teams.** Our Microsoft Teams page will be meeting place for live-streamed lectures and office hours. You will be invited to virtual meetings on Microsoft Teams using your college email id.

Note: New information regarding the structure of face-to-face meetings will be posted when we move to in-person classes. Roughly speaking, each student will be assigned to one of three groups. Only one group will attend each lecture in-person at-a-time with the remaining two online.

-  **MS Streams.** Class meetings will be recorded and available immediately via MS Streams. [Go to this link](#), and *sort by Publish Date* to find the recordings. Office Hour meetings will not be recorded.

Note: To address privacy concerns, you will only be able to stream recorded sessions online, you will not be able to download it.

- Please make sure that you have access to the following technological equipment to ensure
 - ▷ **A laptop or tablet device.** Please plan on bringing this device with you to all in person meetings when we move to classrooms.
 - ▷ **A modern web browser.** Firefox or Edge or Chrome is preferred. Browsers such as Safari might not work with Edfinity homeworks.
 - ▷ Reliable access to high-speed **internet**.
 - ▷ An active **MS Office account** through your **wooster.edu** access, so that you can access email, Moodle, and MS Teams.

Note: All the technology we use in this course is intended to enhance our learning. If you foresee troubles with this, the sooner I know, the better I can help; so please do not hesitate to discuss this with me.

- Due to the hybrid format of the course and the unpredictable pandemic situation, it is imperative that you maintain awareness of course announcements and other communications. **Each student is**

expected to check their email, Moodle announcements, and MS Teams posts at least once per day and preferably more than once. All important information will be pushed to you as soon as possible; it's your responsibility to check messages regularly and act on the information. "I didn't see the announcement" will not be accepted as an excuse!

- The best way to contact me outside of class is by email or via chat in MS Teams. I will typically only check email and other messages between 8am EST and 8pm EST on weekdays and sporadically on weekends. If you send a message that needs a response during those times, you can expect to get a response within about 2 hours. Otherwise you can expect one when I am back online.
- For any private communication regarding this course, please email me from your wooster.edu email address. This is mainly for identity verification purposes.

§F. How to succeed as an Online Learner - Sit in the "Front Row"

Things may feel out-of-control right now. You may be facing a lot of unknowns and disruptions. Here are some tips for staying organized and motivated as an online/remote learner.*

WHERE IS THE FRONT ROW IN A VIRTUAL CLASSROOM?

Most of us have a longstanding perception of what "school" looks like and it isn't sitting in your kitchen counter in pajamas. That is the first step to doing well this semester: Reconsider how you perceive where teaching and learning can happen.

WHAT FRONT ROW STUDENTS DO?

- **Check your class material** for each subject early, as soon as it's released in every class.
- **Get to your Teams meeting early** and make yourself nod and look at the teacher in a synchronous class. (We love that and miss your nods desperately). Please **keep your video on** unless you have a reason not (I won't ask you to turn on your video or why it is off).
- **Raise your hand.** Send emails or chats to your teachers to engage them; do not hide in the proverbial back row. Make up questions to ask if you must.
- **Write notes constantly**, even when you don't think you need to or don't think anyone will care if you are. Your brain cares. It will eventually matter to your learning (I promise this).
- **Sit up straight in your chair.** Sure, you can take an online class on your bed, but you don't think as clearly when you are slouched. Cognitive science studies tell us this. This and doing the "rituals" of brushing our teeth, taking a shower, and dressing as we would to look professional make us act and respond more professionally.
- **Set up a dedicated study space.** Arrange it the way YOU want it. Act like you do when you go to the library to do homework and have to be quiet, even if it's actually your dorm room or outside.
- **Avoiding multitasking.** If you're doing more work on your own and your time is less structured, you might be more tempted to multitask. Many people think they can do multiple things at once. But research shows us that only about 2% of the population can multitask. So
 - Close distracting tabs and apps.
 - Turn off your phone or turn it to silent.

*Adapted from educational psychologist, Tina Kruse.

► Try your best to **Watch recordings at normal speed.**

- **Set a schedule.** Setting a schedule for yourself can help provide structure and keep you motivated. If you don't already keep a weekly or daily calendar, this is the perfect time to start. Include time for exercise and self-care! Figure out how and when you learn best.

A brief note about time commitment. In high school, you might have been used to a day of 6-8 hours of lecture followed by 2 hours of homework. In college, the situation is reversed. For most courses, plan to spend at least two hours for reviewing class materials, per one hour of in-class lecture. This adds up to about 9-10 hours of work per week. Assuming four courses, this is 40 hours of work per week, or 8 hours per weekday - the time you will spend at your future workplace.

- **Work with a group or team.** Remote collaboration will look a little different, but it is definitely possible. Consider a quick text on your group chat about progress every couple of days. If someone has been absent from your group meetings or chat, ask them directly if they're still able to participate in the project. If you aren't getting responses within a day or two, let your instructor know. Know it isn't being petty, it's your team's responsibility.
- **Stay Connected.** Even if we limit how much face-to-face time we spend with others on campus, connecting with family and friends might be more important than ever. And staying in touch with instructors, classmates, and group mates is still important for continued classwork.

§G. Assessment

This is not a lecture-oriented class or one in which mimicking prefabricated examples will lead you to success. You will be expected to work actively to construct your own understanding of the topics at hand with the readily available help of me and your classmates. Many of the concepts you learn and problems you work on will be new to you and ask you to stretch your thinking. You will experience frustration and failure before you experience understanding. This is part of the normal learning process. **If you are doing things well, you should be confused at different points in the semester. The material is too rich for a human being to completely understand it immediately.** Your viability as a professional in the modern workforce depends on your ability to embrace this learning process and make it work for you.

WEIGHTS BREAKDOWN

Weekly Homework	13%
Practically Perfect Proofs	20%
Midterm 1	10%
Midterm 2	12%
Final exam	15%
Expository Paper	20%
Participation and Professionalism	10%

Scores will NOT be curved. The weights are tentative and subject to change on an individual basis.

Grades will be assigned according to the following *tentative* scale.

A	≥ 93	B+	87-89.9	C+	77-79.9				
A-	90-92.9	B	83-86.9	C	73-76.9	D	60-69.9	F	< 60
		B-	80-82.9	C-	70-72.9				

WEEKLY HOMEWORK

The homework is designed for you to practice applying the concepts that we have learned in class and to help you develop the ability to read and write clear mathematical proofs. Each homework will be assigned at the start of the week (usually over the previous weekend), and students are expected to complete (or try their best to complete) parts of each assignment as we are covering the relevant topic during our lecture. All assignments should be *carefully, clearly, and cleanly* written. Among other things, this means your work should include *proper grammar, punctuation, and spelling*. You should write a draft of a given solution before you write down the final argument, so do yourself a favor and get in the habit of differentiating your scratch work from your submitted assignment.

- Homework will usually be due Friday at 5pm and should be uploaded to Moodle.
- In general, late homework will not be accepted without prior permission. *If you anticipate being late, let me know early, not on the deadline, and I will try to accommodate you.*
- **Working together on homework is encouraged!** However, you must still complete and turn in an assignment representing your own work.

There are many ways to approach the problems in this course, and one of the main skills we are trying to develop is **the ability to recognize a correct solution yourself**. Therefore, I usually won't post homework solutions - though I may occasionally post an example or solution to clarify a common point of misunderstanding.

Homework grading: A portion of each homework will be graded for completion, not for correctness (we encourage productive failure). You will receive full credit for making a genuine attempt on these items. You will get no credit if you fail to turn it in, or it is clear you did not honestly attempt the problems, with a majority blank or just scratch work. The other items I will grade for correctness and give you detailed feedback on.

There might also be some extra practice problems in each homework, which will not be graded. These problems, or something similar, are especially likely to reappear on midterms, so if there is something you are unsure about, ask a classmate, ask me about it in class, or make an appointment to see me during office hours.

All of the homework assignments will be weighted equally and the lowest grade overall will be dropped.

PRACTICALLY PERFECT PROOFS

Over the course of the semester, each student will receive about ten problems whose solutions involve crafting coherent, convincing, and mathematically correct arguments, also known as *proofs*. These problems are sometimes difficult and always require careful thought, lots of attention, and lots of time to think and make mistakes.

You will need to submit a formal, correct, professionally-typeset solution (a P³ or Practically Perfect Proof) for these and each will go through a revision process. The first time you submit your P³, you will receive a provisional grade and feedback on your work, and may choose to resubmit the assignment. An honest attempt at each P³ assignment must be submitted on the initial due date in order to be eligible for revision.

Note that only the last submission will be counted for your score. Thus it is possible to receive a lower grade on the final draft than the provisional grade on your first draft on the same problem, if you make changes to your solution that lower its overall quality.

- This is an **independent** assignment that you should view as a take home examination. You may not discuss the problems with anyone except me. This means you cannot talk to other students about your

solutions (or even which problems you are choosing to work on), nor can you ask for help from the TA or other professors, nor from any person in an online setting. *Violation of this policy is grounds for failure of the course.*

- You may not refer to any sources other than the textbook for this course. This includes a prohibition against looking things up on the Internet unless you are directed specifically to do so in the context of a problem. If you think that you need some background material or a definition from another source then you may ask me for permission, and if granted then you may look up the necessary material and include it with a footnote in your proof. *Violation of this policy is grounds for failure of the course.*

The first P^3 assignment consisting of two problems will start around week six, and new problems will be assigned on a weekly basis until about two/three weeks before the end of the semester. Part of the purpose of these P^3 assignments is to give you the opportunity to improve your mathematical writing and writing skills in general. All P^3 assignments must be typeset in \LaTeX , which will provide you several opportunities to learn this skill.

Note: Senior majors in the MCS department must write their IS thesis using \LaTeX . See the next section for info about \LaTeX and guidance on typesetting your solutions.

P^3 Grading: Each problem in the P^3 assignments will be graded using the the ‘‘ P^3 Grading Rubric’’ posted on our course page on Moodle. Please note that you will always be graded on the quality of your writing, both in writing proofs and in essays, unless otherwise noted in the assignment. Hence, writing that includes typos and poor grammar will be marked-down based on the frequency of the mistakes. Be sure to properly edit and revise your writing at all times.

\LaTeX

\LaTeX (pronounced ‘‘lay-tek’’) is a free typesetting system for preparing technical documents and is widely used in mathematics. You will learn the basics of \LaTeX in this course and use it to typeset your P^3 assignments and your final expository paper. **No previous knowledge of \LaTeX is assumed.**

Each homework, you will be given instructions to typeset some of the homework problems in \LaTeX . If you need help with a particular technical issue, you can always ask try an internet search that is verbatim your issue. It is very likely that someone else in the world has had the same issue before, so the solution may be out there!

I highly recommend using the cloud-based TeX editor Overleaf (<https://www.overleaf.com>) if you are new to \LaTeX . They have a comprehensive tutorial/help page: <https://www.overleaf.com/learn>. However, you can also install a local installation of \LaTeX on your personal computer (e.g., TeXShop for Mac: <http://pages.uoregon.edu/koch/texshop/> or MiKTeX for Windows: <https://miktex.org>). Please note that I am *not* the right person to ask if you have technical issues with your local installation.

MIDTERMS AND FINAL EXAM

There will be two exams during the semester and a final exam at the end of the semester. The exams will be designed not only to check students’ skills, but also their understanding of fundamental concepts and principles; students will be expected to apply the material learned to solving a wide variety of problems and proofs, including some which are potentially entirely new and unfamiliar.

At this point, my intention is for everyone to take the midterms and the final exam remotely during some specified time window (probably ~ 24 hours) on the following dates: **Feb 26, Apr 2, and Apr 30**. I will post more details about the format of each exam as the date approaches.

EXPOSITORY PAPER

You will be writing an expository mathematical paper - a presentation of a mathematical topic, complete with an annotated bibliography. Topic selection will begin soon after our first midterm exam and will conclude before Spring Break. You will be given the opportunity to conduct a thorough drafting process for this paper by participating in peer reviews. That is, each of you will help your classmates by reviewing your final drafts leading up to final paper submission. Tentative dates for each phase is posted on below on the last page. Further details will be discussed in class after the first midterm.

PARTICIPATION AND PROFESSIONALISM

The best way to maximize your experience in this course is to fully engage with the material and your classmates. Your active participation not only helps you, but it also creates a better learning environment for everyone in the course. This semester, there will be many different ways for you to demonstrate your engagement and professionalism remotely and in-person. For example,

- Completing the guided course notes.
- Turning in assignments on time.
- Discussing problems in office hours.
- Asking relevant questions in class, office hours, or through email.
- Responding to questions in class or online.
- Presenting your work either in class or online.
- Giving constructive feedback to your classmates.

§H. Conflicts with Academic Responsibilities

As a student you have the responsibility to inform me of potential conflicts as soon as you are aware of them, and to discuss and work with the faculty member to identify alternative ways to fulfill your academic commitments without sacrificing the academic integrity and rigor of the course.

§I. Getting Help

MY OFFICE HOURS

Please come see me during my office hours if you have questions or just want to discuss something from class. For safety and efficiency, this semester I plan to hold office hours virtually and by appointment on Microsoft Teams.

- To meet with me in office hours, you can book a time slot through [Microsoft Bookings by following this link](#).
- The time slots are 20 minutes by default. **Try to avoid booking two slots in row** to give all students equal opportunity for scheduling a meeting. If you need more time, say so at the end of the meeting and we will find another time to meet again.
- When you book a time slot, you will receive a link to a Teams meeting.

- If you and a classmate have similar questions, please feel free to share the link with them and **come together!**
- If I am fully booked, or you can not make my usual office hours, please send me an email and we can work out an alternate time to meet virtually.

Office hours are most effective if you have spent some time formulating your questions beforehand - often you will answer your own questions during that process! You can also contact me via Email or MS Teams with your questions. See the communication expectations section above (section E) for my 'business' hours!

SHIVAM'S OFFICE HOURS

Our TA for this class is Shivam Bhasin, a Junior at the college of Wooster. He will hold office hours on MS Teams and help you with class works and \LaTeX exercises. His office hours are Monday and Wednesday 8-9PM and Friday 1-2PM.

THE LEARNING CENTER

The Learning Center, which is located in APEX (Gault library) offers a variety of academic support services, programs and 1:1 meetings available to all students. Popular areas of support include time management techniques, class preparation tips, and test taking strategies. In addition the Learning Center coordinates peer-tutoring for several academic departments. Students are encouraged to schedule an appointment at the APEX front desk or call ext. 2595.

An additional support that the Learning Center offers is English Language Learning. Students can receive instruction or support with English grammar, sentence structure, writing, reading comprehension, reading speed, vocabulary, listening comprehension, speaking fluency, pronunciation, and American culture through 1:1 meetings with the Learning Center staff, ELL Peer Tutoring, ELL Writing Studio courses, and other programming offered throughout the year.

SUPPORT FOR STUDENTS WITH DISABILITIES

The Learning Center also coordinates accommodations for students with diagnosed disabilities. At the beginning of the semester, students should contact the Learning Center to make arrangements for securing appropriate accommodations. Although the Learning Center will notify me of students with documented disabilities and the approved accommodations, you are encouraged to speak with me directly during the first week of the semester. If a student does not request accommodations or does not provide documentation to the Learning Center, faculty are under no obligation to provide accommodations.

WRITING CENTER

Effective written communication is a cornerstone of the Wooster curriculum, from First-Year Seminar through Senior Independent Study. To assist students in growing as writers, the Writing Center offers a range of services at no cost, through professional staff and peer tutors. More information is on the [Writing Center website](#), and appointments are available at writing_center@wooster.edu, or ext. 2205.

§J. Community Expectations

DIVERSITY AND INCLUSION

I consider our classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability - and other visible and non-visible differences.

All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Your success in this course is important to me. If there are circumstances that may affect your academic performance or impact your learning in particular portions of the class, please let me know as soon as possible. You do not need to share specifics, but together we can develop strategies to meet both your needs and the requirements of the course.

No student is required to take an examination or fulfill other scheduled course requirements on recognized [religious holidays](#). Please declare your intention to observe these holidays at the beginning of the semester.

NAMES, PRONOUNS & PRONUNCIATION

All people have the right to be addressed and referred to as they prefer. I will do my best to address and refer to all students by the names and pronouns that they share in class, regardless of what is listed on the roster, and I support classmates in doing so as well. I would like for you to refer to me as **Prof./Dr. Chowdhury**. I use he/him/his pronouns. Please share the name you prefer to be called and pronouns you wish to use in this class with me via the Moodle survey.

If you are interested in changing your chosen name and/or including your pronoun(s) in The College of Wooster system, [you can find additional information here](#). What appears in The College of Wooster system is what will display in Microsoft Teams. There is no alternative way to change your name or to add pronouns in Teams, but you can add a background that includes these. For instructions on designing a personalized background, see [here](#).

I encourage everyone in this classroom to create a space of mutual respect and support by also giving each other some grace around pronouns, pronunciation of names, etc., if or when we make mistakes. This is not at all to absolve anyone of responsibility for using correct pronouns, names, and pronunciations. But I find it useful to acknowledge that even with the best of intentions, sometimes we can all still make mistakes.

§K. Other College Policies

PRIVACY POLICIES REGARDING COURSE MATERIALS & RECORDINGS

The materials on this course shared on Moodle and Teams are only for the use of students enrolled in this course, for purposes associated with this course, and may not be further distributed. All class recordings will be posted only on password-protected websites (such as Moodle, Teams or Stream) that are only available to course participants and for the duration of the course. These are to be used for educational purposes only; no one should distribute recordings, screenshots, or other class material beyond class without the express permission of all involved in the recording. College classrooms are places to test out new ideas, challenge assumptions, and engage timely and sometimes sensitive issues. Students who enter this space should be able to do so with the assurance that their comments will not be shared beyond the classroom.

College policy states that no **student** may record or tape or photograph any classroom activity without the express written consent of the faculty member. If you need to record/tape a class, then you need to contact the Office of the Secretary for permission.

PASS/FAIL & COURSE DROP OPTIONS (FOR SPRING 2021)

For Spring 2021, students may drop a course until the last day of classes, Tuesday April 27th. Students may drop one course, up to 1.25 credits, at any time through the last day of classes (Tuesday, April 27 by

4:00PM), as long as their total remaining credits are above 3.0. This may be done without documentation of extenuating circumstances. Students may also designate any course (also in major/minor) as pass-fail until one week after final grades are posted.

COLLEGE POLICY ON FINAL EXAMS

No final examinations are to be given during the last week of classes or on reading days. Students who wish to reschedule a final exam must petition the Dean for Curriculum and Academic Engagement in writing in advance of the examination. The student must confer with the instructor before submitting a petition, and the instructor should indicate to the Dean if they supports the petition. **Normally, such petitions are granted only for health reasons. If other reasons necessitate a request for a change in a final exam, the request must be submitted three weeks in advance of the examination.**

THE COLLEGE LIBRARIES AND THE RESEARCH HELP DESK

Your librarian for this course is [Zachary Sharrow](#). You can ask your librarian for help with research in this class and can make an appointment with them using the research consultation form for help with your research and information needs, including finding and using items we have in the Libraries; learning expert tips to refine your search for articles in magazines, journals, and newspapers; making an appointment with a librarian for help on a project; and learning how to evaluate the information you discover.

WELL-BEING AT WOOSTER

The College of Wooster is committed to supporting the well-being of our students. During the course of their academic careers, students experience challenges that contribute to barriers in learning and can interfere with daily life, including but not limited to: strained relationships, adjusting to a new environment, chronic worrying, persistent sadness or loss of interest in enjoyable activities, family conflict, grief and loss, domestic violence, unwanted sexual experiences, difficulty concentrating, drug/alcohol problems, significant changes in eating and sleeping patterns, microaggressions, challenges with organization, procrastination and/or lack of motivation. Counseling Services at the Longbrake Student Wellness Center is a free and confidential resource providing short-term counseling and connections to community agencies for students needing longer term or specialized resources. You can make an appointment by calling 330-263-2319 between 8:30am-4:30pm during weekdays or by emailing Lori Stine (lstine@wooster.edu). You can also find helpful resources on the Counseling Services website at <https://www.wooster.edu/offices/health/counseling/>.

If you or a friend is in crisis, please call Security and Protective Services at 330-287-3333 or the National Suicide Prevention Lifeline (1-800-273-TALK) or connect with the Crisis Text Line by Texting “4HOPE” to 741-741.

For financial concerns: Dean of Students Office, dos@wooster.edu (330) 263-2545, [DoS website](#)

For safety concerns: Campus Security and Protective Services (330)263-2590 or cw-security@wooster.edu, [SPS website](#). **In the care of an emergency, call: 330-287-3333.**

TITLE IX REPORTING POLICY

The College of Wooster is committed to fostering a campus community based on respect and nonviolence. To this end, we recognize that all Wooster community members are responsible for ensuring that our community is free from discrimination, gender bias, sexual harassment, and sexual assault. In accordance with Title IX, Wooster is legally obligated to investigate incidents of sexual harassment and sexual assault that occur on our campus. Faculty who become aware of an incident of sexual violence, including harassment, rape, sexual assault, relationship violence, or stalking, are mandated reporters at the College

and are required to notify Wooster's Title IX Coordinator. The purpose of this disclosure is to ensure that students are made aware of their reporting options and resources for support. For more information about your rights and reporting options at Wooster, including confidential and anonymous reporting options, please visit <http://www.wooster.edu/offices/title-ix/>.

DISCRIMINATORY OR BIAS-RELATED HARASSMENT REPORTING POLICY

The College of Wooster is committed to promoting its mission of inclusivity and equity in all aspects of the educational enterprise. This commitment extends to all rights, privileges, programs and activities, including housing, employment, admissions, financial assistance, and educational and athletic programs at the College. The College's Bias Incident Reporting Process is designed to effectively respond to bias concerns raised by faculty, students, staff, alumni and visitors to the College. If you or someone you know are the victims of bias, you can:

- [File a report online](#) (where you may choose to identify yourself or not)
- Contact Security and Protective Services: 2590 (from campus phone) or 330-263-2590
- Call the Anonymous Tip Line: 2337 (from campus phone) or 330-263-2337
- Contact the Dean of Students Office: 2545 (from a campus phone) or 330-263-2545
- Contact the Chief Diversity, Equity, and Inclusion Officer, Dr. Ivonne M. García, 2167 (from campus phone) or 330-263-2167 or email at igarcia@wooster.edu.

§L. Syllabus Changes

I reserve the right to make changes to this syllabus, if needed. Any changes will be announced to the class in a timely manner. You can find a preliminary outline of the topics that we hope to cover in this course in the next page. This is an idealized plan, and it **may be adjusted as the semester progresses**.

§M. Tentative Schedule and Important Dates

Week of	Topics	Assignments
Mon, Jan 18	Introduction to Math 215 §1.1: Introduction to Sets	No Class: Mon, Jan 18
Mon, Jan 25	§1.2--1.4: Constructing Sets from Sets §1.5--1.7: Set Operations & Venn Diagrams	HW 1 due Fri, Jan 29, 5pm
Mon, Feb 1	§1.8: Indexed Sets §1.10: Russell's Paradox §2.1-2.2: Statements, And, Or, Not	HW 2 due Fri, Feb 5
Mon, Feb 8	2.3-2.4: Conditionals and Biconditionals §2.5-6: Truth Tables, Logical Equivalence	HW 3 due Fri, Feb 12
Mon, Feb 15	§2.7: Quantifiers §2.8: More on Conditionals §2.9: English vs Symbolic Logic	HW 4 due Fri, Sep 18
Mon, Feb 22	§2.10: Negating Statements Midterm Review	Midterm 1: Fri, Feb 26
Mon, Mar 1	§4.1-4.2: Theorems and Definitions §4.2-3: Direct Proof	P³ 1 first draft due Wed, Mar 3 HW 5 due Fri, Mar 5
Mon, Mar 8	§4.4-4.5: Proof by Cases §5.1: Contrapositive Proof	Rest Day 1 on Wed, Mar 10 EP topic choice due Fri, Mar 12 P³ 2 first draft due Fri, Mar 12
Mon, Mar 15	§5.2: Congruence of Integers §6.1: Proof by Contradiction	HW 6 due Mon, Mar 15 P³ 3 first draft due Wed, Mar 17 EP discussion due Fri, Mar 19
Mon, Mar 22	§6.2: Proving Conditional statements by Contradiction §6.3-4: Proof Writing Practice §7.1: If and Only If	EP bibliography and intro due Wed, Mar 24 P³ 4 first draft due Wed, Mar 24 HW 7 due Fri, Mar 26
Mon, Mar 29	§7.2: Equivalent Statements Midterm 2 Review	P³ 1,2,3 final drafts due Wed, Mar 31 Midterm 2: Fri, Apr 2
Mon, Apr 5	§7.3: Existence and Uniqueness §8: Proofs Involving Sets	Rest Day 2 on Wed, Apr 7 HW 8 due Fri, Apr 9 P³ 5 first draft due Fri, Apr 9
Mon, Apr 12	Peer Review workshop §10: Mathematical Induction	EP full draft due Wed, Apr 14
Mon, Apr 19	Catching up on your writing!	HW 9 due Mon, Apr 19 Written response to Peer Review due Wed, Apr 21 P³ 4,5 final drafts due Fri, Apr 23
Mon, Apr 26	Final Exam Review	EP due Wed, Apr 27 No Class: W-F
Fri, Apr 30	Final Exam	12:00pm--2:30pm