COLLEGE OF LIBERAL ARTS AND SCIENCES, UIC
MATH 294, ESP Workshop for MATH 215, 1 Credit Hour
Preliminary Syllabus

I. Instructor & Course Details

Theo Sandstrom (he/him)
Email address: tsands3@uic.edu
Drop-In Office Hours (in-person): Thu 09:00-11:00
Drop-In Hours location: MSLC
Website: theosandstrom.com/courses/f24math294/

Blackboard Course Site (**LINK TO COME**)
Students are expected to log into the course site regularly to learn about any developments related to the course, upload assignments, and communicate with classmates. For all technical questions about Blackboard, email the Learning Technology Solutions team at LTS@uic.edu.

Course Modality and Schedule

Tue/Thu 12:00-12:50 PM	Taft Hall 219

Instruction begins the week of August 26 and ends the week of December 6. Each week, we meet **in person** on Tuesdays and Thursdays. There will be no class Thursday, November 28 due to the Thanksgiving holiday. Attendance is mandatory, as outlined below in the **Grading Policy** section.

II. Course Information

Course Description and Prerequisite Statement

This one credit-hour course is the Emerging Scholars Program (ESP) workshop associated with Math 215 Introduction to Advanced Mathematics. To take this course, you **must** be registered for a section of Math 215. Math 294 is meant to be a companion course to Math 215, and students in ESP workshops have historically performed better in the associated course. However, this workshop is not a replacement for your Math 215 lectures.

This workshop reinforces the ideas covered in Math 215 and offers more opportunities to work with the course material, with a focus on improving proof-writing and problem-solving abilities through guided hands-on practice. Based on student interests, some material beyond the MATH 215 curriculum may be incorporated.

Growth Mindset:
Course materials and assignments can be complex and challenging, but they are crucial to your intellectual and personal growth and development. There may be times you need extra help. Students who attend class consistently, complete all assignments, thoughtfully engage with feedback on work, develop good study strategies, visit the tutoring center, and contact faculty when they are struggling can develop a thorough understanding of the course material and ultimately succeed in the course!

III. COURSE POLICIES & CLASSROOM EXPECTATIONS

Grading Policy
This course is graded on an A-F scale, based on (a) attendance and participation, and (b) a final project, described below. Attendance/participation is worth 80% of your final grade, the project is worth 20% of your final grade.

Percentages will be converted to letter grades as follows:

≥90%	A
≥80%	B
≥70%	C
≥60%	D
<60%	F

Please email me if you face an unexpected situation that may impede your attendance, participation in required class and exam sessions, or timely completion of assignments.

Attendance/participation:
Over the semester, our class is scheduled to meet 29 times. Thus, for the semester, you will be assigned a grade out of 29 total points. Each class meeting, points are assigned as follows:

Timely arrival, engagement with material, active contribution to group work	1 point
Arrival within 15 minutes of the start of class	¾ point
Arrival more than 15 minutes into class	½ point
Failure to engage with material and/or contribute to group work	0 points

Note that participation can mean many things, including: actively solving problems with groupmates, explaining concepts to peers, asking questions. You are not expected to arrive at class with mastery of material: this is a learning workshop!

Final project:
This is a very flexible assignment, and your submission could take many forms. A few options to consider:
- An expository paper in which you choose a mathematical subject or problem, explain its significance, and explore the tools used to reason about/solve it.
- A brief biography of a mathematician of interest, either contemporary or historical, who you want to learn more about, discussing their contributions to mathematics.
- A written or video presentation of some cultural/social issue in mathematics, discussing notable figures, events, shifts over time, etc.
- A video lecture explaining a mathematical concept.

The exact requirements will, of course, depend on the form of your project. You should propose a project idea to me for approval **no later than Thursday November 21,** via email, in class, or during office hours, so that we can iron out the specific requirements of your project. As a vague guideline, I expect written projects to be 1.5-3 pages typed (single-spaced), and video projects to be 3-5 minutes in length. Any sources must be cited appropriately.

Project proposal	10%
Depth of understanding	40%
Grammar, spelling, clarity, presentation	25%
Informational accuracy	25%

The final project will be due **Friday December 6**. Late submissions will not be accepted.

Academic Integrity

As a student and member of the UIC community, you are expected to adhere to the Community Standards of academic integrity, accountability, and respect. Please review the UIC Student Disciplinary Policy for additional information.

Email Expectations

Students are responsible for all information instructors send to your UIC email and Blackboard accounts. Faculty messages should be regularly monitored and read in a timely fashion.

Policy on Use of Generative AI

The use of AI writing tools (including, but not limited to, ChatGPT, Bard, or Sudowrite) is NOT permitted in this course. Students who use these tools for class assignments undermine the goals and learning objectives for this course, reducing the effectiveness of instruction. The instructor may submit student writing to an AI writing detector (e.g., GPTZero) at any point throughout the term. Any confirmed use of AI writing tools will be treated as cheating. Students should reference UIC's Student Disciplinary Policy for more information.

IV. COURSE SCHEDULE (Preliminary)

Weekly Schedule of Class Topics, Assignments, Assessments, Due Dates, and Deadlines

Week 1: Introduction: What is a proof?
Week 2: Propositional logic
Week 3: First-order logic
Week 4: Contrapositive and contradiction
Week 5: Sets I
Week 6: Sets II
Week 7: Functions I
Week 8: Functions II
Week 9: Cardinality
Week 10: Induction I
Week 11: Induction II
Week 12: Number theory
Week 13: Real numbers (Project proposal due Thu)
Week 14: Combinatorics
Week 15: Abstract algebra (Project due Thu)

Disclaimer

This syllabus is intended to give the student guidance on what may be covered during the semester and will be followed as closely as possible. However, as the instructor, I reserve the right to modify, supplement, and make changes as course needs arise. I will communicate such changes in advance through in-class announcements and in writing via email.

V. ACCOMMODATIONS

Disability Accommodation Procedures

UIC is committed to full inclusion and participation of people with disabilities in all aspects of university life. If you face or anticipate disability-related barriers while at UIC, please connect with the Disability Resource Center (DRC) at drc.uic.edu, via email at drc@uic.edu, or call (312) 413-2183 to create a plan for reasonable accommodations. To receive accommodations, you will need to disclose the disability to the DRC, complete an interactive registration process with the DRC, and provide me with a Letter of Accommodation (LOA). Upon receipt of an LOA, I will gladly work with you and the DRC to implement approved accommodations.

Religious Accommodations

Following campus policy, if you wish to observe religious holidays, you must notify me by the tenth day of the semester. If the religious holiday is observed on or before the

tenth day of the semester, you must notify me at least five days before you will be absent. Please submit this form by email with the subject heading: **"[MATH 294] YOUR NAME: Requesting Religious Accommodation."**

Pregnancy Accommodations

Following campus policy, pregnant students have rights under Title IX. To request pregnancy-related accommodations, contact the Title IX Coordinator at titleix@uic.edu or 312-996-8670.

VI. CLASSROOM ENVIRONMENT

Inclusive Community

UIC values diversity and inclusion. Regardless of age, disability, ethnicity, race, gender, gender identity, sexual orientation, socioeconomic status, geographic background, religion, political ideology, language, or culture, we expect all members of this class to contribute to a respectful, welcoming, and inclusive environment for every other member of our class. If aspects of this course result in barriers to your inclusion, engagement, accurate assessment, or achievement, please notify me as soon as possible.

Name and Pronoun Use

If your name does not match the name on my class roster, please let me know as soon as possible. My pronouns are *[she/her; he/him; they/them]*. I welcome your pronouns if you would like to share them with me. For more information about pronouns, see this page: https://www.mypronouns.org/what-and-why.

Community Agreement/Classroom Conduct Policy

- Be present by turning off cell phones and removing yourself from other distractions.
- Be respectful of the learning space and community. For example, no side conversations or unnecessary disruptions.
- Use preferred names and gender pronouns.
- Assume goodwill in all interactions, even in disagreement.
- Facilitate dialogue and value the free and safe exchange of ideas.
- Try not to make assumptions, have an open mind, seek to understand, and not judge.
- Approach discussion, challenges, and different perspectives as an opportunity to "think out loud," learn something new, and understand the concepts or experiences that guide other people's thinking.
- Debate the concepts, not the person.
- Be gracious and open to change when your ideas, arguments, or positions do not work or are proven wrong.
- Be willing to work together and share helpful study strategies.
- Be mindful of one another's privacy, and do not invite outsiders into our classroom.

Content Notices and Trigger Warnings

Our classroom provides an open space for a critical and civil exchange of ideas, inclusive of a variety of perspectives and positions. Some readings and other content may expose you to ideas, subjects, or views that may challenge you, cause you discomfort, or recall past negative experiences or traumas. I intend to discuss all subjects with dignity and humanity, as well as with rigor and respect for scholarly inquiry. If you would like me to be aware of a specific topic of concern, please email or visit my Student Drop-In Hours.

VII. RESOURCES: Academic Success, Wellness, and Safety

We all need the help and the support of our UIC community. Please visit my **drop-in hours** for course consultation and other academic or research topics. For additional assistance, please contact your assigned college advisor and visit the support services available to all UIC students.

Academic Success
- UIC Tutoring Resources
- UIC Library and UIC Library Research Guides.
- Offices supporting the UIC Undergraduate Experience and Academic Programs.
- Student Guide for Information Technology
- First-at-LAS Academic Success Program, focusing on LAS first-generation students.

Wellness
- **Counseling Services**: You may seek free and confidential services from the Counseling Center at https://counseling.uic.edu/.
- Access U&I Care Program for assistance with personal hardships.
- **Campus Advocacy Network**: Under Title IX, you have the right to an education that is free from any form of gender-based violence or discrimination. To make a report, email TitleIX@uic.edu. For more information or confidential victim services and advocacy, visit UIC's Campus Advocacy Network at http://can.uic.edu/.

Safety
- UIC Safe App—PLEASE DOWNLOAD FOR YOUR SAFETY!
- UIC Safety Tips and Resources
- Night Ride
- Emergency Communications: By dialing 5-5555 from a campus phone, you can summon the Police or Fire for any on-campus emergency. You may also set up the complete number, (312) 355-5555, on speed dial on your cell phone.