

Independent Study – Math 4199

Fall 2026

Professor: Dr. David Milan

Office: RBN 4001

Office Hours: 1:15-2:15pm MWF, or by appointment.

Email: dmilan@uttyler.edu

Office Phone: (903)566-7210 (email is best)

Web: class page on Canvas

Class Meeting Time: 12:20-1:15pm M

Prerequisites: The student must be within 3 semesters of graduation with a BS in mathematics.

Course Description: This is the first part of our two-part capstone course. The purpose of this course is to prepare you to work on your senior research project with your faculty mentor. In this course you will learn LaTeX, use databases to search for research articles, and hone your writing skills. This will all be done in the context of mathematical projects based on what you have learned in your course work at UT Tyler.

Learning Outcomes: By the end of the course students should be able to:

- Construct a well-written mathematical research paper.
- Typeset a mathematical document using LaTeX.
- Prepare a professional presentation using LaTeX or PowerPoint.

Course Evaluation: Your course grade will be based entirely on biweekly writing assignments.

Important Dates:

September 7 – Labor Day Holiday, no class.

September 8 – Census date. Last day to change schedule or file for grade replacement.

October 30 – Last day to withdraw.

Approximate Weekly Schedule

1	Aug. 24	Introductions
2	Aug. 31	Mathematical biographies
3	Sep. 7	Labor Day
4	Sep. 14	LaTeX tutorial (part 1)
5	Sep. 21	LaTeX tutorial (part 2)
6	Sep. 28	Searching mathematics databases
7	Oct. 5	Textbook exercise
8	Oct. 12	Writing mathematics
9	Oct. 19	Writing mathematics
10	Oct. 26	Peer review of papers

11	Nov. 2	Tutorial on posters
12	Nov. 9	Review posters
13	Nov. 16	Poster presentations
14	Nov. 23	Thanksgiving Holiday
15	Nov. 30	Advisor assignments

Important Dates:

September 1: Census date: date to withdraw without penalty, grade replacement deadline.

October 30: Last day to drop course with a W.

Policies: See <https://www.uttyler.edu/offices/academic-affairs/faculty-resources/syllabus-information/> for these important University policies: UT Tyler Honor code, student rights and responsibilities, campus carry, UT Tyler a tobacco-free university, grade replacement and forgiveness, state-mandated course drop policy, student accessibility and resources, student absence for university-sponsored events, social security and FERPA, emergency exits and evacuation, and student standards of academic conduct.

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

For this course, you must complete all graded work without the assistance of AI, unless specifically instructed otherwise.