Mathematics 315

Mathematics and Statistics Career Preparation (1)

Dr. Caldwell, Spring 2019

Instructor: Dr. Chris Caldwell (caldwell@utm.edu) 7336. My office is 429 Humanities. Drop by—you are the reason I am here.

Canvas We will use Canvas (`http://utm.instructure.com`) to post (and update) the course schedule & files, submit assignments, display grades, ...

Prerequisite: Math 314 and Math 320 (or permission of chair).

Catalog Description: This course will introduce mathematics and statistics majors to formal mathematical and statistical written and verbal communication including, but not limited to, preparing presentations and written papers in the mathematical and statistical sciences. The course will also provide majors with assistance in preparing resumes and various requirements, procedures, and guidelines of graduate school applications.

This is the course in which we teach LaTeX. I am not sure why we did not make that explicit in the description. It is the way most mathematics is written and presented—so is a very substantial part of what we do in this course.

Student Learning Outcomes: This course especially addresses the fourth of our five student learning outcomes for the major (and supports the others). These outcomes are as follows.

Upon completion of his/her degree from the University of Tennessee at Martin with a major in mathematics, the graduate will be able to:
  (1) apply mathematical concepts and principles to perform numerical and symbolic computations.
  (2) use technology appropriately to investigate and solve mathematical and statistical problems.
  (3) write clear and precise proofs.
  (4) communicate effectively in both written and oral form.
  (5) demonstrate the ability to read and learn mathematics and/or statistics independently.

Text: **There is no textbook for this course.** The software we will use (LaTeX, TeXstudio, Canvas. . .) is all free. There is a massive amount of literature supporting these available on the web—use it well!

Grading: We will have roughly six LaTeX assignments; three oral presentations (10, 15 and then 20 minutes) along with their associated drafts, Beamer slides & papers; and a resume. These will be graded on a six point scale (see the rubric on Canvas for Project One). Most of the credit will be for doing the work on time (and most will be submitted via Canvas).

If the work you submitted needs improvement, you will be given a week (168 hours) to complete any revision I ask for. No credit will be given for work that is (either) more than two weeks late (or past noon on the day of the final). Most assignments have rubrics on Canvas

These projects (and a few small items) will make up 75% of your grade. The other 25% will be attendance. We will use the traditional scale: 90% up is an A, 80–89% a B, 70–79% a C . . . . Always feel free to ask about your progress if what is in Canvas is unclear.

Note there is no competition (implicit or explicit) in this grading, so please help each other. It is my hope that all students will get an A.

Trigger Warning: **This course is front loaded.** That is, we will introduce lots of ideas up front and it may seem like a hard class the first couple weeks, but once you get over the initial learning curve for LaTeX, the course will get far easier. We will also meet every day at first but near the end of the course may use several of the days for work days or individual meetings with the instructor.

I am well aware this is a one hour course and I will be respectful of your time.

Outline: Our schedule will be similar to the suggested departmental outline (sans PowerPoint). Use the Canvas course calendar.

Chapter	Likely Topic
week 1	Introduction, syllabus, ~~Powerpoint~~/Latex introduction
week 2	Latex discussion
week 3	Latex discussion, presentation one
week 4	Presentation paper due, discussion of presentation
week 5	Student work week; Faculty available for questions
week 6	Faculty-chosen topics
week 7	Proposal from students for formal project, faculty-chosen topics
week 8	Student work week; Faculty available for questions
week 9	Presentations by students
week 10	Resume/Curriculum Vitae writing
week 11	Student work week; Faculty available for questions
week 12	GRE/graduate school preparation
week 13	Formal presentations by students
week 14	Discussion of presentations and course conclusion

Academic Integrity: Academic dishonesty will not be tolerated and will result in at least an F for the activity or assignment. Your Student Handbook clearly states "suspension from the university is the expected penalty" for "plagiarism, cheating, and academic integrity issues" and this includes submitting the work of another person as your own or permitting another to submit yours as his/her own. For this course especially, make sure that you know what plagiarism is.

Disability Services: The University of Tennessee provides reasonable accommodations (academic adjustments and auxiliary aids) to ensure equal access to educational content and university programs for students with disabilities. Students who are eligible for and who request accommodations through the Disability Services office must provide instructors with a letter of accommodation. The Disability Services office is located in the Student Success Center, 203 Clement Hall, (731) 881–7605.