

## MATH 5351 Probability

**Meeting Times:** 10:10-11:05 pm MWF in RBN 3040.

**Last day to withdraw:** Monday, November 2, 2020.

**Instructor:** Nathan Smith

**Office:** RBN 4007

**Contact:** 566-7216      nsmith@uttyler.edu

**Office Hours:** Tentatively 11:15 - 12:10 MWF. I will poll my classes and set up some zoom office hours too.

**Text:** None

**Course Topics:** Set theoretic probability, discrete and continuous random variables, expectation and variance, the central limit theorem, a little statistical inference.

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

- Define and use the basic concepts from probability theory, including random variables, distribution and density functions, conditional probability, moments, expectations, generating functions, and the central limit theorem.
- Identify, give density functions for, and apply the standard discrete and continuous random variables and random variables derived from these.
- Apply the above to basic statistical inference.

**Grading:** There will be two tests as well as a final project/exam. Each will count one fifth of your final grade. The remaining two fifths of your final grade will be based on homework and classwork.

**Student Academic Conduct:** It is your responsibility to learn the material in this course for your own benefit. You should not let this discourage you from working together on your homework but in the end what you turn in should reflect your understanding, not just be copied from someone else. *During the tests and the final exam a code of honor will apply under which students are to work alone and neither give help to others nor receive help from any sources.* Students are also expected to help enforce this code. Students are encouraged to obtain a copy of *A Student Guide to Conduct and Discipline at UT Tyler*, available in the Office of Student Affairs.

**Important Covid-19 Information for Classrooms:** Students are required to wear face masks covering their nose and mouth, and to follow social distancing guidelines, at all times in public settings (including classrooms and laboratories), as specified by Procedures for Fall 2020 Return to Normal Operations. The UT Tyler community of Patriots views adoption of

these practices consistent with its Honor Code and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, or a higher than normal temperature will be excused from class and should stay at home and may join the class remotely. Students who have difficulty adhering to the Covid 19 safety policies for health reasons are also encouraged to join the class remotely. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

**Recording of Class Sessions:** Class sessions may be recorded by the instructor for use by students enrolled in this course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.

**University Policies:** For University 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, and the Social Security and FERPA Statement please see: <http://www.uttyler.edu/academicaffairs/files/syllabuspolicy.pdf>.