Math 1342.H029 - Honors Statistics

Spring 2025

MoWeFr 11:15 am - 12:10 pm in RBN 4032

Instructor: Dr. Maddie Dawsey

Office: RBN 4048

Office Hours: TuTh 8:30 - 9:30 am and We 1:25 - 2:20 am, or by appointment

Email: mdawsey@uttyler.edu

Website: All course materials will be posted on Canvas

Textbook

Statistics, Unlocking the Power of Data, 3rd edition, by Lock⁵. ISBN: 978-1-119-30884-3. We will also use the (free) companion online resource "StatKey" at http://www.lock5stat.com/StatKey.

Course Description

Measures of central tendency and dispersion, sampling, probability, testing of hypothesis, correlation and regression, and analysis of variance.

Course Learning Objectives

We will cover Chapters 1-6 and P. By the end of this course, you should be able to do the following:

- Explain the use of data collection and statistics as tools to reach reasonable conclusions.
- Recognize, examine, and interpret the basic principles of describing and presenting data.
- Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
- Examine, analyze, and compare various sampling distributions for both discrete and continuous random variables.
- Describe and compute confidence intervals.
- Solve linear regression and correlation problems.
- Perform hypothesis testing using statistical methods.

Important Dates

January 20	Martin Luther King, Jr. Holiday - no class
January 27	Census Date
March 17 - 21	Spring Break - no class
March 31	Withdrawal Deadline
April 28 - May 2	Final Exams

Grading Scheme

Your final letter grade will be determined by the following grading scheme:

Practice Problems	10%	A	90 - 100
Activities	10%	В	80 - 89.99
Midterm Exams	$45\% \ (15\% \ each)$	\mathbf{C}	70 - 79.99
Final Essay	15%	D	60 - 69.99
Cumulative Final Exam	20%	\mathbf{F}	0 - 59.99

Attendance

Students are expected to attend every class and are responsible for any announcements made during class. If you must miss class, please get any notes you missed from a classmate and email Dr. Dawsey or come to office hours to catch up.

Homework

Homework will be posted on Canvas after class each day and is strongly encouraged for you to become more comfortable with the material and more effectively study for exams. Homework will not be graded.

Practice Problems (10%)

Practice problems will be assigned after each class. It is essential to complete the practice problems in order to learn how to answer questions about the material, as you will have to do on exams. Practice problems will be due once a week on Canvas, by the beginning of class each Wednesday.

Practice problems will not be accepted late, and practice problems not turned in by the due date will earn a grade of zero. If you have to miss class on a Wednesday, it is your responsibility to still turn in your practice problems on time. Your lowest practice problems score will be dropped at the end of the semester.

Activities (10%)

There will be many in-class activities randomly assigned throughout the course of the semester. Activities will either be due by the end of class that day or by the beginning of the following class on Canvas.

Activities will not be accepted late, and activities not turned in by the due date will earn a grade of zero. It is recommended that students notify the professor of any absences to make sure that they will not unknowingly miss an activity that will affect their grade. Your lowest activity score will be dropped at the end of the semester, with the exception of the Easter and Chapter 6 activities, which will not be dropped.

Exams (45% Midterm Exams, 20% Final Exam)

There will be three midterm exams during the semester and a cumulative final exam. Each midterm exam will be worth 15% of the final course grade, and the final exam will be worth 20%. The *tentative* exam schedule and topics are the following:

Exam 1 (Chapters 1-2)

Exam 2 (Chapters 3-4)

Exam 3 (Section P.5 and Chapters 5-6)

Cumulative Final Exam

Friday, February 14

Friday, March 14

Friday, April 18

Monday, April 28 at 10:15 am - 12:15 pm

Missed midterm exams can only be made up within three days in the case of an excused absence. Missed exams that are not made up within three days will earn a grade of zero. The final exam cannot be made up under any circumstance, and a missed final exam for any reason will automatically earn a grade of zero.

Final Essay (15%)

You will be required to write one essay over the course of the semester. The essay must be at least 4 full pages typed (in addition to one page for references) with reasonable font size, spacing, and margins. Topics, prompts, and rubric will be provided by the professor well in advance of the due date. The final essay will be due by 11:59 pm on the last day of class: Friday, April 25.

Technology

You will need a non-graphing calculator. The recommended model is the TI-30X IIS (you can get one of these for about \$13-\$16), although any non-graphing calculator will do. You will **not** be allowed to use your cell phone, tablet, or laptop calculator on exams. If you need the professor to provide you with a calculator for this class, please reach out and ask!

You will also need a device capable of internet access. Note: Use of AI is not permitted on any assignments.

Student Resources

The Mathematics Learning Center, RBN 4021, is an open access computer lab for math students. There are tutors on duty to assist students who are enrolled in early-career courses. More information, including a current schedule, can be found here: https://www.uttyler.edu/math/math-learning-center.

The PASS Tutoring Center also offers free tutoring for early-career courses and has walk-in hours. More information, including a current schedule and instructions for making tutoring appointments, can be found here: https://www.uttyler.edu/tutoring.

Other resources that are readily available to you include:

- Your textbook.
- Your professor (via office hours or email).
- Your classmates. Collaborative homework and studying is encouraged.

University Policies

For university policies concerning Students' Rights and Responsibilities, Grade Replacement/Forgiveness, State-Mandated Drop Policy, Disability Services, Student Absence due to Religious Observance, Student Absence for University-Sponsored Events and Activities, Campus Carry, Social Security and FERPA Statement, please see the University Information module on the course Canvas page.

Tentative Schedule

WEEK	DAY	PLANNED MATERIAL
Week 1	M	Section 1.1
1/13–1/17	W	Section 1.2
	F	Section 1.3
W 1 0	M	Martin Luther King, Jr. Holiday
Week 2 1/20–1/24	W	Section 2.1
	F	Section 2.2
TT7 1 0	M	Section 2.3
Week 3 1/27–1/31	W	Section 2.4
	F	Section 2.5
	M	Section 2.6
Week 4	\mathbf{w}	Section 2.7
2/3-2/7	F	Section 3.1
	M	Section 3.2
Week 5	W	Section 3.3
2/10-2/14	F	Exam 1
	M	Section 3.4
Week 6	W	Finish Chapter 3
2/17-2/21	F	Section 4.1
	_	Section 4.1
Week 7	M	Section 4.2 Section 4.3
2/24-2/28	W	Section 4.3 Section 4.4
	F	
Week 8	M	Section 4.5
3/3-3/7	W	Finish Chapter 4, Assign Final Essay
	F	Section P.5
Week 9	M	Section 5.1
3/10-3/14	W	Section 5.2
	F	Exam 2
Week 10	M	Spring Break
3/17-3/21	W	Spring Break
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Week 11	M	Review Chapter 5
3/24-3/28	W	Section 6.1
5/21 5/20	F	Section 6.3
Week 12 3/31-4/4	M	Section 6.2
	W	Section 6.4
	F	Section 6.5
Week 13 4/7-4/11	M	Review Chapter 6
	W	Section P.1
4/1 4/11	F	Section P.2, Final Essay Rough Draft Due
Week 14 4/14-4/18	M	Easter Activity
	W	Easter Activity
	F	Exam 3
Week 15 4/21-4/25	M	Section P.3
	W	Section P.4
	F	Final Essay Due, Review for Final Exam
Week 16		Cumulative Final Exam