

Math 1342.D040 — Statistics Syllabus — Larry Richmond
Fall 2025

Instructor Contact Information:

Larry Richmond

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Office Hours: By appointment.

Text: **Statistics, Unlocking the Power of Data**, by Lock, Lock, Lock, Lock and Lock ISBN: 978 111 944 7702

Course Description:

This course is a study of measures of central tendency and dispersion, sampling, probability and confidence intervals. It corresponds to the material from chapters 1 – 6 in the text.

Grades:

Your grade will be determined by percentage from the following categories: Homework 25%, Tests/Projects 45%, , and Final Exam 30%. **If you miss a test, that grade will be a zero until you take the final exam, at which time your final exam grade will be substituted for the missed test. If you don't miss any tests and your final exam grade is better than one of your 4 tests, the final exam grade will substitute for it.** *Departmental policy is that you can only make one grade higher in the course than you make on the final exam.*

Attendance:

Class attendance is important to your success. I will take attendance once at the beginning of each class.

Calculators:

Calculators are required for this course. Please bring them to class daily.

Final Exam:

Our final exam is comprehensive. Requests for make-up exams due to work conflicts or to accommodate travel will be denied. No early finals will be given.

Cell Phone Policy:

Before class begins, you must turn your cell phone off or put it in silent mode and out of sight.

Course Outline:

- Welcome and 1.1 The Structure of Data
- 1.2 Sampling from a Population
- 1.3 Experiments and Observational Studies
- 2.1 Categorical Variables,
- 2.2 One Quantitative Variable: Shape and Center
- 2.3 One Quantitative Variable: Measures of Spread
- 2.4 Outliers, Boxplots, and Quantitative/Categorical Relationships,
- 2.5 Quantitative Variables: Scatterplot, Correlation
- 2.6 Two Quantitative Variables: Linear Regression
- 3.1 Sampling Distributions
- 3.2 Understanding and Interpreting Confidence Intervals,
- 3.3 Constructing Bootstrap Confidence Intervals
- 3.4 Bootstrap Confidence Intervals using Percentiles
- 4.1 Introducing Hypothesis Tests,

4.2 Measuring Evidence with P-Values
4.3 Determining Statistical Significance
4.4 Creating Randomization Distributions,
4.5 Confidence Intervals and Hypothesis Tests

5.1 Normal Distributions
5.1 Normal Distributions (continued)
5.2 Confidence Intervals and P-Values Using Normal Distributions,
5.2 (continued)
6.1 D
6.1 CI,
6.1 CI (continued)
6.1 HT
6.1 HT (continued),
6.2 D
6.2 CI
6.2 CI (continued)
6.2 HT
6.2 HT(continued)
Review

UT Tyler Resources for Students

- Writing Center (903-565-5995) writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903-565-5964) tutoring@uttyler.edu
- UT Tyler Counseling Center (903-566-7254)

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.

- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

UT Tyler a Tobacco-Free University:

- All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.
- Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.
- There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Campus Carry

The law of the State of Texas allows students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>

In addition, Section 4, a-1 of SB 11 states "a license holder commits an offense if the license holder carries a partially or wholly visible handgun, regardless of whether the handgun is holstered, on or about the license holder's person."

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services: In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Tyler at Texas offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The **Student Accessibility and Resources (SAR)** office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic

transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Student Learning Outcomes

By the end of this course, the successful Statistics student 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.
- Explain the role of probability in statistics.
- 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.

Assignments:

1.1	3,6,9,18,20,21,22
1.2	47,52,55,59,60
1.3	73,85,87,89,93,96,103
2.1	15,17,22,26
2.2	61,66,68
2.3	110,118,121,127
2.4	147,149,155
2.5	179,186,187,192,193
2.6	209,211,213
3.1	21,27,31,35
3.2	57,59,63,67
3.3	89,91,93,95
3.4	125,127,129
4.1	17,27,29,31,33
4.2	53,59,61,63,69,76
4.3	97,101,107
4.4	147,149
4.5	165,175,179
5.1	23,25,27
5.2	43,47,57
6.1D	5,7,9

6.1CI	19,21,29,33,37
6.1HT	55,57,61

6.2D	65,67,69,73,75
6.2CI	85,89,93,97,107
6.2HT	115,119,121,123