

Representative MATH 1309 Syllabus

Instructor Information

This is an example of a syllabus that is typical for the class. An official syllabus will be provided by the faculty member teaching the specific section of the course for which students have enrolled.

Course Information

Section Information

[SAMPLE]

Course Description

Course Title: MATH 1309 Statistical Literacy

Topics may include collection, analysis, presentation, and interpretation of data. Analysis includes descriptive statistics, probability, relationships between variables and graphs, elementary statistical models, hypothesis testing, inference, estimation, correlation, regression, and confidence intervals. The use of mathematical software and calculators is required.

Prerequisites: None

Time and Place of Class Meetings

[SAMPLE]

This course operates on Central Time. All times listed for class meeting times, exams, and assignment deadlines are in Central Time (CT).

Classroom/Lecture Recording Policy

Faculty maintain the academic right to determine whether students are permitted to record classroom and online lectures. Recordings of classroom lectures, if permitted by the instructor or pursuant to an ADA accommodation, may only be used for academic purposes related to the specific course. They may not be used for commercial purposes or shared with non-course participants except in connection with a legal proceeding.

Recording of classroom and online lectures in this course is allowed.

Student Learning Outcomes (SLO)

After completing the course, the successful student-learner will be able to:

1. express how data collection and summaries can be used to reach one or more reasonable conclusions with appropriate statistical terminology.
2. produce accurate and relevant numerical and graphical descriptive statistics of qualitative and quantitative data using multiple methods.
3. distinguish between correlation and causation when solving linear correlation and regression problems.

4. develop a foundation for statistical significance with a variety of empirical and theoretical probability methods and counting techniques.
5. employ the Normal distribution in a variety of applications and justify its use in the sampling distribution of the sample mean and the sample proportion.
6. construct confidence intervals for population means and population proportions and make sound statistical inferences based on the interval estimates.
7. formulate hypothesis tests for population means and population proportions and use statistical methods to conclude plausible inferences about expressly defined populations.

Course Materials & Technology

Textbook Information

This course is participating in a new program to provide digital course materials on or before the first day of class at a reduced cost. The cost for your digital materials will be charged to your UTA student account, and you will have access to the materials through Canvas. Course fees are associated with course registration.

Digital Access and eText Bundle (Required Course Materials): Your course materials included in the \$70 course fee contain the e-version of the course text as well as ALEKS course access (*ALEKS Higher-Ed Math with McGraw Hill eText for Essential Statistics, 3rd edition, by Navidi and Monk*), which is designed to enrich student success by providing instant feedback on your assignments plus on-demand access to personalized learning plans, multimedia lesson helps, and more.

For more information about this program, please see the Course Resources page in your Canvas course and then for further questions, contact your campus bookstore at uta@bkstr.com or 817-272-2785.

Technology & Equipment Requirements

Additional Materials and Associated Costs for this Course

1. **One set of 3x5 index cards:** A small package of plain, white 3x5 index cards. Prices range from \$1 to \$3.
2. **Scientific Calculator:** Students may choose to use a scientific, non-graphing calculator on all assignments, including unit exams and the final exam. If so, it MUST be one of the following models explicitly:
Texas Instruments 30X series: **TI-30XIIS (recommended)**, TI-30XIIB, TI-30XS MultiView, or TI-30Xa. No variation of model will be accepted. Plus or Pro versions are not allowed. Prices range from \$10 to \$25 for various models. Students may also use an electronic calculator from within the tests for free.
3. **Web-Enabled Device:** Use your smartphone, tablet, laptop, or another device to check in at lectures for required attendance. Index cards may be used as a back-up.

Software and System Requirements

Mozilla Firefox and Google Chrome are the recommended and supported browsers for this course. Please check your Canvas course for other course requirements.

Visit the [OIT Services page](#) for a list of Applications and Software available through UTA.

Visit the [UTA Libraries Technology page](#) for a list of items that can be checked out or used at the library.

Assignments & Exams

Complete all assignments and exams by the due dates. Due dates are listed in ALEKS and in the Course Summary located in the Canvas Syllabus. A schedule of weekly topics is included on the last page of the Syllabus: [Course Schedule](#)

Pre-Lecture Videos

There are 14 Pre-Lecture Video assignments that are accessed in ALEKS, each of which is due before the associated lecture of the week. Each video assignment includes guided notes, accessed in Canvas, which will help prepare you for that week's lecture. Students are encouraged to bring their notes to lectures and ask questions. You may review these videos any time after the due date.

Homework and Quizzes

Each of these assignments are accessed in ALEKS and **due at 11:59 PM Central Time**.

- **Homework:** There is a homework assignment associated with each section of material. The ALEKS PIE homework assignments are adaptive, and mastery based, which means students have multiple attempts and embedded help options. There are also three homework assignments that explore topics using Excel and allow 3 attempts per question. **It is important to save your progress frequently so that your session does not time out.**
- **Quizzes:** There is a syllabus quiz plus six content quizzes. You will have two attempts at each of the quizzes. All quizzes have a 50-minute time limit and must be completed in their entirety once opened. Quizzes cannot be saved and resumed later.

Statistics Inquiry Project (SIP)

The purpose of the Statistics Inquiry Project (SIP) is to deepen the following skills:

- Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication.
- Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

The SIP contains group and individual components. The SIP group lab activities involve data collection, display, and analysis. SIP group activities will be completed in the Math LRC Computer Lab (PKH 308) during regularly scheduled lab time. One of the SIP group activities, the SIP Signature Assignment, requires also that each student write up a summary and reflection of the activity.

Exams

There are three proctored Unit Exams throughout the course of the semester, plus a comprehensive final exam, all found within Canvas using ALEKS. **Unit Exams are taken in the Math LRC Computer Lab (PKH 308)** during regularly scheduled lab time. **The Final Exam will also be held in PKH 308 based on the University schedule.** It is advised to arrive at least 15 minutes prior to the testing time. **The doors of the Computer Lab lock 15 minutes after the start of the exam.**

- You must have your MavID or valid photo ID with you on exam day and will be required to sign-in/out upon entering and exiting the lab.
- You may use your own calculator (see list of allowed calculators in the [Technology & Equipment Requirements](#) section) or use the one provided within the test.
- Formula sheets and scratch paper will be provided in the lab. No additional materials are allowed.
- Exams cannot be opened, saved, and returned to later.
- You may not leave the room during an exam.
- Partial credit forms will be available for all unit exams. At a designated time after each exam, you will be allowed to review your answers. At that time, you may fill out a partial credit form and request partial credit on up to 3 questions by turning the form into your instructor by submitting the form in the partial credit assignment in Canvas. You cannot earn credit for any problems not originally attempted and answered during the exam. See the Partial Credit page in the Unit module corresponding to the unit exam in Canvas for the form and additional details. Partial credit is not available on the final exam.
- Use of any unauthorized electronic devices, notes, outside software, or other resources during an exam will result in a grade of ZERO.

Major Assessments

Assessment	Assignment Description	Exam Date/Time or Due Date
Unit Exam 1	75 minutes	TBA
Unit Exam 2	75 minutes	TBA
Unit Exam 3	75 minutes	TBA
SIP Signature Assignment	Group Lab Activity with Reflection	TBA
Final Exam	30 questions, 140 minutes	TBA

Grading Information

Assignments	Values (%)
Attendance/Participation	5%
Pre-Lecture Video Assignments (all equally weighted)	2%

Assignments	Values (%)
Homework (all equally weighted)	13%
Quizzes (all equally weighted)	13%
SIP Group Lab Activities (7 of 8 equally weighted)	7%
SIP Signature Assignment (1 of 8 SIP Group Lab Activity)	5%
Unit Exams (all three equally weighted)	35%
Comprehensive Final Exam	20%
Total:	100%

Students are expected to track their performance throughout the semester, which Canvas facilitates, and seek guidance from available sources, including the instructor, if their performance drops below satisfactory levels. Refer to the [Student Support Services](#) section below.

- **IMPORTANT:** The grade calculation as shown above is *not* reflected in ALEKS. Please refer to the Grades page in Canvas *only* for your correct course average.
- The lowest homework grade will be dropped by the end of the semester.
- The lowest quiz grade will be dropped by the end of the semester.

Final Grade Calculations

Grades will be computed based on the following distribution. Grades are rounded up accordingly.

Percentage	Letter Grade
90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Grading Standards

Typically, a passing grade must be a letter grade of C or higher. However, check with your home department (major) for guidelines and grade requirements.

Late Work Policy

All electronic homework, pre-lecture video and quiz assignments are available on the first day of class.

- Each **Pre-Lecture Video assignment** is due by no later than the start of its associated lecture. **NO late work will be accepted.**
- A **24-hour grace period** is enabled for all homework and quiz assignments, which allows students to submit those assignments up to 24 hours past any due date listed in Canvas/ALEKS. Beyond this grace period, **NO late homework or quizzes will be accepted**, so watch the due dates on the calendar. You will receive a zero for any assignments not submitted.

- **SIP Group Lab Activities:** Students are expected to arrive on time for the weekly SIP group activities. A student who is more than 20 minutes late will not receive credit for that week's SIP group work.
- The **SIP Signature Assignment** is due by 11:59 pm on the day of the associated SIP Group Lab Activity. A **24-hour grace period** is enabled for the individual summary and reflection portion of the activity. . Beyond this grace period, **NO late work will be accepted.**

Make-Up Exams Policy

There are no make-up exams. If you know ahead of time that you are going to miss class for a legitimate reason, it is your responsibility to inform me and make the necessary arrangements. If you have a conflict with a scheduled exam due to a school-sponsored or excused event, you **MUST** have documentation and you **MUST** arrange to take the exam **BEFORE** you leave. To request an alternate exam date because of an approved conflict, please fill out the Alternate Exam Date Request Form which can be found on the Testing page in the Getting Started module in Canvas. You must either submit the forms directly to me during class or office hours or email the form along with the necessary documentation at least two weeks prior to the first exam. A request for a rescheduled exam will only be considered in rare, documentable, and verifiable instances. The decision to grant an alternate exam date will be at the sole discretion of the instructor and/or course coordinator.

Extra Credit Policy

You can earn Stats Coins throughout the semester that you can use for extra credit in a variety of ways at the end of the semester. Instructions for redeeming the Stats Coins will be provided toward the end of the semester and extra credit will be applied at the end of the semester. Coins can only be earned or redeemed in integer values. NOTE: Redemption of coins cannot result in earning more coins.

Ways to Earn Stats Coins

- | | |
|--|---------------|
| 1. Earn 100% on a Pre-Lecture Video | 2 coins each |
| 2. Correct answer to peer stats inquiry in lecture | 1 coin each |
| 3. Perfect lab attendance | 10 coins |
| 4. Earn $\geq 85\%$ Homework Average | 30 coins |
| 5. Earn $\geq 90\%$ on a Technology Assignment (up to 3) | 10 coins each |

Ways to Redeem Stats Coins – Extra Credit Options

- | | |
|--|-------------------|
| 1. Option to replace one Unit Exam score with Final Exam score | 30 coins |
| 2. Bonus points on exams (max 5 percentage points per exam) | 3 coins per point |

Technology Assignments

This course contains three related concept homework assignments which address six of the seven student learning outcomes listed in the [Student Learning Outcomes \(SLO\)](#) section of the syllabus. These assignments will reinforce work done by hand using technology and will earn Stats Coins. Completion of these homework assignments is optional.

Grade Grievance Policy

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current [University Catalog: Grades and Grading Policies](#).

Course & University Policies

Attendance Policy

Students should review the University Class Attendance Policies on the [Class Attendance Policies page](#). The following attendance policy will be applied in this course.

As the instructor of this section, I have adopted the following attendance policy. Attendance is mandatory and assessed at each lecture and lab meeting. Students are expected to attend lecture and lab sessions, be attentive, and participate in discussions and activities.

ATTENDANCE REQUIREMENTS (100 pts possible)	Half Credit (25 pts each)	Full Credit (50 pts each)
Lab Attendance – worth 50% of Attendance	At most 11 absences	At most 5 absences
Lecture Attendance – worth 50% of Attendance	At most 6 absences	At most 3 absences

Lectures

The lecture session meets 1 day per week for 1 hour and 20 minutes.

- Lecture participation/attendance will be monitored using [index cards](#). At each lecture, you will engage with one or more peers to answer a stats inquiry. At a randomly designated time, you will write your name legibly on an index card, along with your answer(s) to the stats question(s), and turn it in to your instructor. The index card will serve as attendance credit, provided that your name is legible. Additionally, [stats coins](#) will be awarded for correct answers.
- Any student who submits an index card for another student who is absent will be reported for a code of conduct violation and will receive a zero for semester lecture attendance.

Labs

The lab sessions meet 2 days per week, each for 1 hour and 20 minutes, in the Mathematics Learning Resource Center (Math LRC) Computer Lab, PKH 308.

- Lab attendance will be monitored using a swipe-in kiosk at the entrance, whereby the student uses their MavID card or types in their MavID number.
- Any student who swipes in but does not stay to participate will be reported for a code of conduct violation and will receive a zero for semester lab attendance.

Institutional Policies

UTA students should review the [University Catalog](#) and the [Syllabus Institutional Policies](#) page for institutional policies and contact the specific office with any questions. The institutional information includes the following policies, among others:

- Drop Policy

- Disability Accommodations
- Academic Integrity
- Electronic Communication

UTA Honor Code

UTA students are expected to adhere to and observe standards of conduct compatible with the University's functions as an educational institution and live by the [University of Texas at Arlington's Honor Code](#). It is the policy of The University of Texas at Arlington to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and responsibility.

Student Support Services

Student Services Page

The [Student Services page](#) provides links to many resources available to UTA students, including:

- Academic Success
- Counseling and Psychological Services (CAPS)
- Health Services
- Students with Disabilities
- Veteran Services

Students are also encouraged to check out [Career Center](#) resources to enhance their career-readiness, find student employment, search for internships, and more. We encourage [Major Exploration](#) and the use of [Experiential Major Maps](#) to keep students on track for graduation. Refer to the [Graduation Help Desk](#) for more details.

Online Academic Success Guide

Visit the [Online Academic Success Guide](#) to explore a list of helpful tips and resources to help you succeed in your online journey.

Course Schedule

Week or Module	TOPIC	ASSIGNMENT DUE
1	Sampling, Data Types, Experiments, and Bias SLO (1)	
2	Data Distributions and Graphical Summaries SLO (1,2)	
3	Measures of Central Tendency and Variation SLO (2)	
4	Empirical Rule and Measures of Position SLO (2)	
5	Probability Rules SLO (4)	
6	Multiplication Rules and Probability Distributions SLO (4)	
7	Normal Distribution SLO (5)	
8	Sampling Distribution of Sample Mean and Review SLO (5)	
9	Sampling Distribution of Sample Proportion SLO (5)	
10	Confidence Interval for Population Mean SLO (6)	
11	Confidence Interval for Pop. Proportion, Basics of Hypothesis Testing SLO (6, 7)	
12	Hypothesis Test of Population Mean SLO (7)	
13	Hypothesis Test of Population Proportion SLO (7)	
14	Linear Correlation and Regression SLO (3)	
15	Review/Prep for Final Exam	
	FINAL EXAM	