MTE 556.001 Statistics for Teachers

COURSE SYLLABUS: Spring 2026

Instructor: Rebecca Dibbs, PhD
Office Location: 110 Education North
Office Hours: TBD
University Email Address: Rebecca.Dibbs@etamu.edu

COURSE INFORMATION

Materials

Textbook(s) Required: All materials will be provided and free to students. You will need a bag of Skittles for one activity. You will be told when you need them.

Course Description: Hours: 3

Statistical Reasoning for Teachers - Three semester hours The National Council of Teachers of Mathematics (NCTM) explains in its Principles and Standards (2000) that statistical reasoning is essential to being an informed citizen, employee, and consumer; thus it is essential for all students. This course is designed to prepare the teachers to create learning environments conducive to meeting the national and state standards regarding statistical reasoning. Topics include formulating questions that can be addressed with data; collecting, organizing, and displaying relevant data to answer questions; selecting and using appropriate statistical methods to analyze data; developing and evaluating inferences and predictions based on data; understanding and applying basic concepts of probability.

COURSE REQUIREMENTS

Course Activities

Homework: Homework: Homework will be assigned each day. It is worth ten points per problem.

- **10 pts - Correct work**
- **1 - 9 pts - Almost correct work**

Exams: There will be no exams this semester. There is a pre- and post-assessment in the course, but these are graded on completion. Consider the Simulation of Practice (SOP's) the course exams.

Activities: We will usually do two activities per day. I have recorded videos for you to provide scaffolding for the activities.

Simulation of Practice: These are a mix of written and video assignments where you are asked to respond to student work. These videos should be uploaded to YouTube as an unlisted video and the link posted to D2L.

The key to success in this course is regularly working with other students in the class and asking questions when you have them!!! We will discuss lab problems in class, but there will often not be enough time to discuss all of them. Please come to office hours if you have additional questions about the problem set.

Workload and Assistance: You should expect to spend **a minimum of TWO HOURS every day**, outside of class, on the course material. This includes watching the videos, labs, and studying for quizzes and exams. Some weeks (those in which an SOP is scheduled, for instance) may require more of your time, other weeks may require less, but *on average*, budget 8 to 12 hours each week. **I can't stress enough that in order to be successful in this class you should spend much of this time working with other students in the class!** Please ask questions and seek assistance as needed. You may email me at any time, and I encourage you to make use of my office hours and Discord.

GRADING

This class will be graded on a points system:

Assignment	Points
Homework	10 points/problem
Activities	20 points/activity
Simulation of Practice	40 points/SOP
Pre- and Post-Assessment	50 points each
Discussion Board Participation	70 points
Total	1600 points

All point totals will be rounded to the nearest percent before grades are assigned:

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

TECHNOLOGY REQUIREMENTS

Use of a graphing calculator having at least the capabilities of the TI-83 will be helpful throughout the course. TI-89 is highly recommended. A computer algebra system will be used for some problem exploration, enhanced conceptual understanding, and to engage students as active participants in the learning process.

We will also use several free web-based statistical software packages. Most have a relatively low learning curve.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

My primary form of communication with the class will be through Email and Announcements. Any changes to the syllabus or other important information critical to the class will be disseminated to students in this way via your official University Email address available to me through MyLeo and in Announcements.

It will be your responsibility to check your University Email and Announcements regularly.

Students who Email me outside of regular office hours can expect a reply within 24 hours M-F. Students who Email me during holidays or over the weekend should expect a reply by the end of the next regularly scheduled business day.

myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at https://leo.tamuc.edu.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

THE COUNSELING CENTER AT A&M-COMMERCE, LOCATED IN THE HALLADAY BUILDING, ROOM 203, OFFERS COUNSELING SERVICES, EDUCATIONAL PROGRAMMING, AND CONNECTION TO COMMUNITY RESOURCES FOR STUDENTS. STUDENTS HAVE 24/7 ACCESS TO THE COUNSELING CENTER'S CRISIS ASSESSMENT SERVICES BY CALLING 903-886-5145. FOR MORE INFORMATION REGARDING COUNSELING CENTER EVENTS AND CONFIDENTIAL SERVICES, PLEASE VISIT WWW.TAMUC.EDU/COUNSEL

Course Specific Procedures

Academic Honesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including (but not limited to) receiving a failing grade on the assignment, the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. In **ALL** instances, incidents of academic dishonesty will be reported to the

Department Head. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion.

Cheating is defined as:

- Copying another's test of assignment
- Communication with another during an exam or assignment (i.e. written, oral or otherwise)
- Giving or seeking aid from another when not permitted by the instructor
- Possessing or using unauthorized materials during the test
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key

Plagiarism is defined as:

- Using someone else's work in your assignment without appropriate acknowledgement
- Making slight variations in the language and then failing to give credit to the source

Collusion is defined as:

- Collaborating with another, without authorization, when preparing an assignment

If you have any questions regarding academic dishonesty, ask. Otherwise, I will assume that you have full knowledge of the academic dishonesty policy and agree to the conditions as set forth in this syllabus.

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors 'guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

Late Policy: Late work/Make-ups will not be accepted without a documentable and valid excuse, because the lowest grade(s) in each category is dropped. Examples of documentable and valid excuses include:

*car accident w/ police report
*illness w/ doctor's note (you or your child)
*athletic or other mandatory extra-curricular travel
*field trip for another class
*being detained upon entering the country by Homeland Security

University Specific Procedures

ADA Statement

Students with Disabilities
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

University Specific Policies

- The final exam time can be found at http://www.tamuc.edu/admissions/registrar/academicCalendars/final-exam-schedule.aspx
- Campus Concealed Carry (new): Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to

(http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/3 4.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

- The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services, Texas A&M University-Commerce, Gee Library, Room 132, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148, email: StudentDisabilityServices@tamuc.edu
- Basic Tenets of Common Decency: "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student's Guide Handbook, Policies and Procedures, Conduct.) This means that rude and/or disruptive behavior will not be tolerated.
- A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.
- Tutoring services up to the level of Calculus I provided by the Math Skill Center (Binnion Room 328) with the following hours: MW, 8am–8pm; TR, 8am–6pm; and F 8am–12pm.

COURSE OUTLINE / CALENDAR

Note: Although I suggest you complete each day's assignments and turn it in by the next day, all materials for each module will be accepted until the end of the Module (2/15 for Module 1, 4/19 for Module 2 and 5/8 for Module 3).

MODULE 1: Exploratory Statistics		
Week	**Videos**	**Assignments**
Week 1	1.1 – 1.4	Homework 0 (Pre-work) Activities 1.1-1.4 HW 1 (discussion boards) HW 2 Pre-Assessment
Week 2	1.5 & 1.6	Activities 1.5 & 1.6 HW 3
Week 3	1.7 – 1.10	Activities 1.7 – 1.10 HW 4 HW 5 SOP #1
Week 4	1.11 & 1.12	Activities 1.11 & 1.12 HW 6
Week 5	1.13 – 1.16	Activities 1.13 – 1.16 HW 7 HW 8 SOP #2 **ALL MODULE 1 ASSIGNMENTS DUE SUNDAY OF WEEK 5**
MODULE 2: Hypothesis Testing		
Week	**Videos**	**Assignments**
Week 6	2.1 & 2.2	Activities 2.1 & 2.2 HW 9
Week 7	2.3 & 2.4	Activities 2.3 & 2.4 HW 10
Week 8	2.5 & 2.6	Activities 2.5 & 2.6 HW 11
Week 9	**SPRING BREAK**	**NO ASSIGNMENT**
Week 10	2.7 & 2.8	Activities 2.7 & 2.8 HW 12

Week 11	2.9 & 2.10	Activities 2.9 & 2.10 HW 13 SOP #3
Week 12	2.11 & 2.12	Activities 2.11 & 2.12 HW 14 SOP #4
Week 13	2.13 & 2.14	Activities 2.13 & 2.14 HW 15
Week 14	2.15 & 2.16	Activities 2.15 & 2.16 HW 16 **ALL MODULE 2 ASSIGNMENTS DUE SUNDAY OF WEEK 14**
MODULE 3: Correlation		
Week	**Videos**	**Assignments**
Week 15	3.1 – 3.3	Activities 3.1 – 3.3 HW 17 HW 18 SOP #5
Week 16	3.4, 3.5, & 3.7	Activities 3.4, 3.5, & 3.7 HW 19 HW 20 Post-Assessment
Week 17	FINALS WEEK	**ALL MODULE 3 ASSIGNMENTS DUE FRIDAY OF WEEK 16**

Assignment List

Note: The problem numbering resets each module.

HW 1: 1-1 (DB) 1-3 (DB)

HW 2: 3-1, 3-4

HW 3: 5-1, 5-2

HW 4: 7-1, 7-2

HW 5: 9-1, 9-2

SOP #1: 10-5

HW 6: 11-1, 12-1

HW 7: 14-1

HW 8: 15-2, 15-5, 16-2, 16-12

SOP #2: 16-18

HW 9: 1-1, 1-2

HW 10: 3-1

HW 11: 5-2, 5-11

HW 12: 7-1, 7-2

HW 13: 9-1

SOP #3: 10-3

HW 14: 11-1, 12-1

SOP #4: 12-6

HW 15: 13-1

HW 16: 15-1, 15-2, 16-2, 16-5

HW 17: 1-1, 1-2, 1-3

HW 18: 2-2, 3-1

SOP #5: 2-1

HW 19: 4-2, 4-3, 4-7, 5-1

HW 20: 7-2