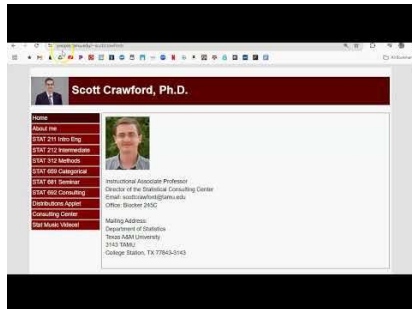


STATISTICS 211 - Engineering Statistics – Spring 2025

Instructor: Dr. Scott Crawford Email: scottcrawford@tamu.edu
Office Hours: MWF 12:30 – 1:30 in Blocker 245C
TA hours: Click [here](#) for TA recitation and help sessions (for Stat 211 specifically)
My website: <https://people.tamu.edu/~scottcrawford/stat211.html>
Optional Text: Probability and Statistics with R for Engineers and Scientists by Michael Akritas (not required)
Calculator: Any calculator fit for engineering. Test questions attempt to avoid advantages for fancier calculators.
Objectives: To learn basic statistical tools and to prepare for research, analysis of data, and the FE exam. Emphasis will be on the application and interpretation of the results rather than on the derivation of statistical techniques.
Pre-requisites: Elementary knowledge of integral calculus
Section 599/M99: MWF 11:30-12:20 in BLOCK 150
Section 511: MWF 1:50-2:40 in HECC 203

Video to help you get going (if the PDF version doesn't work visit the class webpage):



Math Learning center videos: [Click here](#)

Webassign Purchase: The fee for Webassign comes out of your student fees. If you want to opt out of that go to “Class Resources” in CANVAS. If you have issues let me know or call Cengage customer support at (800) 354-9706.

Homework: Assignments are due every week on **Wednesday at 11:59 pm**. If you are late you may extend the homework deadline by 1 day for a 10% penalty of the points you earn from then on. The penalty only applies to points earned after the extension request. (This is done automatically within Webassign and does not require emailing the instructor). You may have three extensions per assignment for up to one week after the deadline. An extension without the penalty requires a University Excuse can cover more than half the week that the assignment was due. It is considered your responsibility to begin the homework early enough to manage computer problems, power outages, or content problems.

Each question can be submitted 5 times. That means there is no excuse for not being able to get the correct answers – **if you have missed a question 3 times you should find help**. The TA's are hired specifically to help 211 students learn the material. The homework is posted weekly, so everyone is working on the same assignment at the same time. It is your responsibility to make sure we can find solutions to any problems before the assignment is due.

We have found that **students who work together tend to do better. Do not just guess**. The answer to question 1 on the homework (you know it's only there to force you read this syllabus) is “teach”. That's because teaching this material to other students is a fantastic way to learn it. Believe it or not explaining stuff you only partly understand to someone else will help you teach yourself.

Announcements: Any changes to the class structure or deadlines will be announced in CANVAS as in an email. It is expected that you will read emails and keep track of the deadlines.

Grading:		A: 90-100
Homework	25%	B: 80-89
Exam 1	25%	C: 70-79
Exam 2	25%	D: 60-69
Final Exam	25%	F: Below 60

Exams: The tests are proctored through zoom and hosted in Webassign. You will need TWO devices that can log into zoom. One will be the computer you take the exam with (so you can use screen sharing). The other will have a webcam to the side (showing that you are not using a cell phone).

The exams are scheduled at specific times when you register for the course.

You are not allowed to load any program on your computer during the exam besides Webassign, a "distributions applet", and the program R. The tests are cumulative, timed, and closed book, but you will be allowed a study sheet for the exams (two sheets on the final). See the last page for a calendar of when the exams are held.

There is **no extra credit** or extra projects in the class. CANVAS rounds grades to the second decimal point, and I cannot round beyond that and be fair to the entire class. No matter where I draw the line someone will be just below it, and every semester I get emails from several people just below the line asking me to round up. With hundreds of students there is no way to create consistent rules that avoid this problem.

Incompletes: A grade of "incomplete" is only an option for students who have completed more than 2/3 of the class (after the second exam) and have faced unexpected, uncontrollable, and debilitating personal circumstances. An incomplete can help a student complete the class later to manage a sudden disability.

Disability Resources. 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 believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information visit <http://disability.tamu.edu/> **Honor Code.** "An Aggie does not lie, cheat or steal, or tolerate those who do." <http://aggiehonor.tamu.edu>

Statement on Plagiarism. As commonly defined, plagiarism consists of passing off as one's own ideas, words, writing, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty." **Copyright Notice.** Faculty members own copyright in their educational work at Texas A&M University, as stated in the Texas A&M University System Policy for Intellectual Property Management and Commercialization (<http://policies.tamus.edu/17-01.pdf>). Students are not allowed to post or share any materials created by a faculty member unless given permission by that faculty member. This includes but is not limited to homework assignments, homework solutions, exams, exam solutions, lecture notes and any other supplemental materials. Any violation of this copyright policy could result in disciplinary actions as described in Student Rule 20.2: Procedures in Scholastic Dishonesty Cases and Student Rule 20.1.2.3.1

Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise. Unauthorized materials may include anything or anyone that gives a student assistance and has not been specifically approved in advance by the instructor. Texas A&M complies fully with the Digital Millennium Copyright Act ("DMCA"). Users of the Texas A&M network found to have engaged in repeated infringement of copyright are subject to termination of their network access and may be reported to the appropriate Dean or Human Resources officer for disciplinary action. Please see TAMU's Copyright Infringement Policies and Sanctions Notification for additional information. https://security.tamu.edu/protect_myself/Copyright_Infringement_Policies_and_Sanctions_Notifications.php

Harassment. The educational environment shall be free from all forms of sexual discrimination and sexual harassment. Conduct constituting sexual harassment is specifically prohibited and will result in appropriate sanctions. Sexual harassment means unwelcome sexual advances, requests for sexual favors, or other verbal, visual or physical conduct of a sexual nature, submission to which is made a condition of a person's exercise or enjoyment of any right, privilege, power, or immunity, either explicitly or implicitly. In relation to the foregoing, sexual harassment may range from unthinking and often unintentional verbal denigration of a person on the basis of gender to actual physical assault. Some examples that may constitute sexual harassment are: offensive sexual flirtations, advances, or pressure for sexual activity; unwanted touching, pinching, or unnecessary brushes; unwanted exposure to sexual graffiti, photographs or suggestive objects; sexual innuendos or statements made at inappropriate times or disguised as humor, or obscene gestures; disparaging remarks about one's gender; or any offensive or abusive physical contact.

All aspects of this syllabus are subject to change. Changes will be announced in class.

Course Outline

Week 1 Jan 13 Jan 15	Syllabus in Webassign HOMEWORK 1 due	Week 9 Mar 6 Mar 12	Spring Break
Week 2 Jan 16 Jan 22	Definitions and plots HOMEWORK 2 due	Week 10 Mar 13 Mar 19	CI with t, and for p HOMEWORK 8 due
Week 3 Jan 23 Jan 29	Std Dev, histograms, table probs HOMEWORK 3 due	Week 11 Mar 20 Mar 26	Hypothesis testing one mean HOMEWORK 9 due
Week 4 Jan 30 Feb 5	Probabilities HOMEWORK 4 due	Week 12 Mar 27 Apr 2	CI/HT μ z/t and p and matched pairs HOMEWORK 10 due
Week 5 Feb 6 Feb 12	Normal Distribution HOMEWORK 5 due	Week 13 Apr 3 Apr 9	Test 2 April 9th at 7:00pm 1 page of study notes
Week 6 Feb 13 Feb 19	Test 1 February 19th at 7:00pm 1 page of study notes	Week 14 Apr 10 Apr 16	Testing two means and proportions HOMEWORK 11 due
Week 7 Feb 20 Feb 26	Sampling Distributions HOMEWORK 6 due	Week 15 Apr 17 Apr 23	Regression terminology and CI HOMEWORK 12 due
Week 8 Feb 27 Mar 5	CI for one mean HOMEWORK 7 due	Finals Week Apr 24 Apr 30	SLR and power HOMEWORK 13 due

Final Exam

Stat 599/M99: May 5th, 3:30pm

Stat 510: May 6th, 10:30am

2 pages of study notes

120 minutes