STAT 50-09 and 10: Introduction to Probability and Statistics

Spring 2021

**Instructor: Mr. Fitch**

**Instructor Contact Information: bill.fitch@csus.edu**

**Note:** In the event a faculty member is not available during the semester for whatever reason, students will be contacted and advised how the course will proceed. This may include a change in instructor and/or modality.

**Syllabus**: In principle, this syllabus is tentative and is subject to change. You are responsible for any such changes and class announcements.

**Course Modality:** This course is being taught synchronously via Zoom meetings at the regularly scheduled class times MWTH 4 - 5:15 pm (section 09) or 5:30 – 6:45 pm (section 10). The PowerPoint of the lecture portion will be posted; however, the discussion prior to the lecture including questions about the homework or other questions may not be recorded. You are encouraged to attend class.

**Office Hours:** TBA. Office hours will be announced once they are set. See Canvas for access information.

**Prerequisites**: Math 26A or Math 30 or certified AP Calculus AB score of 4 or AP Calculus BC score of 3. Prerequisites will be verified.

**Course Description:** This course is intended for students who have completed one semester of calculus and who wish to take an introductory course in probability and statistics. Students who take this course would normally take STAT 103 after completion of STAT 50.

STAT 50 satisfies Area B4 of the GE requirements. Hence, as part of this course, writing assignments will be given to encourage the students to think through concepts of the course.

**Canvas**: This course will use Canvas. Homework assignments, grades, and other materials

related to the course will be posted in Canvas.

**Grading**: You will be graded on the following five components.

In-class exercises: In-class exercises count for 5% of your grade. Your lowest score will be dropped. No make-up in-class exercises will be given.

Quizzes – Quizzes count for 15% of your grade. Your lowest quiz will be dropped. No make-up quizzes will be given.

Homework - Homework counts for 15% of your grade. Your lowest homework score will be dropped. Late homework is not accepted.

WebAssign will not be used.

Homework will be assigned during the semester. For each homework that is assigned, a due date will be given in class and the homework is due at 11:59 PM on the day it is due. You will upload your homework in Canvas.

Most assigned problems will be odd numbered. The answers to odd-numbered problems are in the back of the textbook.

Solutions to selected problems will be provided after the due date.

Write up your solutions clearly and neatly. I will not guess what you are writing if I

cannot read it. The homework that you turn in should be free from scratch work. I highly

recommend proof reading your work before you turn it in. Points may be deducted from

homework that is poorly organized or difficult to read.

Lastly, homework solutions taken directly from the internet may receive no credit.

Knowing how to do the homework is one of the most important factors in being suc-

cessful in the course. You may work with other students in the class on the homework,

but do not rely on your peers for homework solutions. If you do work with others, you are

responsible for writing up your own unique solution. Class discussions will emphasize this writing component requirement of the course through the above criterion. For some of the assignments, students would utilize technology including a graphing calculator, Excel, online applets or statistical software packages like MINITAB, R, SPSS and SAS.

Midterm Exams – Each of two midterm exams is worth 20% of your grade. No make up exams will be given.

Final Exam - The final exam is worth 25% of your grade. The final exam will consist of two parts: Part 1 will cover the material subsequent to the second midterm. Part 2 will cover the material from midterms 1 and 2. Your final exam score will be the total from the entire exam including both parts 1 and 2. Your uncurved part 2 percentage score will replace your lowest (non-zero) midterm percentage if it is higher than your lowest midterm percentage (may not apply to a missed exam).

The instructor reserves the right to put a curve on any quiz, exam, or the final. The curve

will only benefit the student. Do not rely on a curve to raise your grade in the course.

Grading Scale:

100 to 93: A

93- to 90: A-

90- to 87: B+

87- to 83: B

83- to 80: B-

80- to 77: C+

77- to 73: C

73- to 70: C-

70- to 67: D+

67- to 63: D

63- to 60: D-

60- to 0: F

**Course Materials:** Textbook: Statistics for Engineers and Scientists, by W. Navidi, Fifth Edition. You are expected to have access to a textbook by the second day of class. You will also need a basic scientific calculator.

**Technology Requirements**: You will need to be able to use Canvas and Zoom. Com-

munication through a microphone and the chat feature in the Zoom app is also required.

Students will be asked to upload handwritten work to Canvas for grading. Files should be

uploaded as a pdf. If you have technology concerns, please contact me.

**Zoom Etiquette**: During Zoom lectures, we will follow the principles of the Hornet Honor

Code. We will demonstrate respect towards each other and recognize that we are working

towards the common goal of successfully completing the course. Please be mindful of what

you type in the chat, your microphone, and camera (if you choose to have your camera

on). You are not required to have your camera on during lecture or during office hours.

If you have a question, please ask! Student questions can lead to some of the most

productive discussions in lecture. If you have a question, please

1. Unmute your microphone.

2. Say \Mr. Fitch, I have a question" or \Mr. Fitch, I have a com-

ment."

Some students prefer to ask questions in the Chat. This is not a reaction of being afraid

to speak up in class. We are all learning in different spaces; perhaps there is background

noise or microphone access is limited. These should not be reasons that you do not ask your

question or make your comment. Your thoughts and ideas are important. If you notice a

question in the chat box that I have not acknowledged, feel free to say \Professor Timmons,

there is a question in the Chat." We are a community that supports one another.

I will always do my best to answer all questions. If I am unable to address your question

during lecture, please send me an email or attend office hours.

**Material Covered**: Most of the material covered will be from the chapters 1, 2, 4, 5 and 6 of the textbook, concentrating on the fundamentals of probability, random variables, expectation, variance, covariance, density and distribution functions, central limit theorem, confidence interval estimation and hypothesis tests. If time permits, some selected sections of the chapter 3 (propagation of error) or chapter 7 (linear correlation and least-squares regression) would be covered.

**Attendance Policy:** Regular attendance is encouraged and expected. Attendance will be tracked; however, it is not specifically a component of your grade. On days where there is an in-class exercise or quiz given during class time, no make-ups will be offered without prior approval (simply notifying me does not constitute approval). Notify me ahead of time if you will be missing class so that we can make an appropriate determination. If an unexpected emergency comes, please notify me as soon as possible so that it can be determined whether or not a make-up assignment(s) is appropriate.

Sickness: If you are sick, please do not attend your in-person classes and let your instruc-

tors know. If you are having symptoms of Covid-19 (fever, cough, sore throat, muscle aches, loss of smell or taste, nausea, diarrhea, or headache) or have been in contact with some-

one who has tested posted for Covid-19, contact Student Health and Counseling Services

(SHCS)

<https://www.csus.edu/student-life/health-counseling/> at 916-278-6461 to obtain guidance and/or medical care.

In the event a student becomes ill or are placed under quarantine as a result of the

Covid-19 pandemic, the instructor and student will put together an individualized plan for

the student to complete assignments. This may include accepting late assignments with

no penalty, and/or alternative assignments to be completed by the student. However, once

the instructor and student have created a plan for the student, it is important to follow

that plan in order to maintain the integrity of the course and to be fair to both the student

and instructor.

It is critical that you communicate with me in a timely manner if these

circumstances occur. You will not be penalized for such illness, but it is your responsibility

to communicate with me via email.

Your mental and physical health is of utmost importance. There is not an expectation

that you will contact me the moment a diagnosis is given. The expectation is that an email

is sent to me when you are healthy enough to communicate via email, but not necessarily

ready to begin completing assignments.

**Sac State Mobile App**: Information on Sac State's mobile app can be found here:

https://www.csus.edu/information-resources-technology/web-mobile/

university-web-mobile-services.html#sac-state-mobile-app

This is particular important if you need to go to campus so that you can receive real-time

information on the status of the campus.

Availability of Student Services:

\_Services to Students with Disabilities (SSWD) - If you know or think you may have a learning or physical disability, contact SSWD. You can learn more here:

https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities/

\_ Crisis Assistance and Resource Education Support (CARES) - The CARES office

provides support for students who are experiencing crisis or challenges in their edu-

cation. This may include mental/physical health and wellness. For more information,

go here:

https://www.csus.edu/student-affairs/

crisis-assistance-resource-education-support/

\_ Student Health and Counseling Services (SHCS) - For Student Health and Counseling

Services, please visit:

https://www.csus.edu/student-life/health-counseling/

\_ Additional Resources - To learn more about the many resources Sac State has to

offer, I recommend visiting this website:

https://www.csus.edu/student-affairs/retention-academic-success/

This excellent website has numerous links to student geared programs. I highly

recommend visiting this website to see if there is something for you!

**Health & Safety Information:**

1. If you are sick, stay home and do not attend class. Notify your instructor. Please self-diagnose if you are experiencing any COVID- like symptoms (fever, cough, sore throat, muscle aches, loss of smell or taste, nausea, diarrhea, or headache) or have had exposure to someone who has tested positive for COVID contact **Student Health & Counseling Services (SHCS) at 916-278-6461** to receive guidance and/or medical care. You are asked to report any possible COVID related illnesses/exposures to SHCS via this link [COVID-19 Illness/Exposure Report Form](https://sacstateshcs.wufoo.com/forms/covid19-illnessexposure-report/). Expect a call from SHCS within 24 hours. The CDC provides a good source of information regarding COVID-19 and a way to self-check symptoms: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
2. If there is face-to-face contact in the course, include description of how attendance will be limited to ensure health and safety requirements are satisfied as determined by EH&S and the department.
3. If there is face-to-face contact in the course, Sacramento State is requiring all courses that have a face-to-face contact component to require the wearing of masks and maintenance of 6 ft physical distancing as mandated by the state of California. Students who refuse to wear a mask will be asked to leave.
4. If there is face-to-face contact in the course, description of the health and safety requirements for classes with face-to-face contact (e.g. Masks required, classroom spacing, how to enter and exit the room, sanitizing desks and chairs, etc.) as determined by EH&S and the department.
5. If this course is required to pivot from face-to-face to virtual instruction, this information will be communicated to students via email and Canvas.
6. If there is face-to-face contact in the course, details on what the class will do in the event there is a student in class who receives a positive COVID-19 test result (e.g. will assignments be delayed? will assignments and activities be moved virtual?).

**Required Webcam Access (ONLY for courses that must have live access to a webcam AND have received approval from the Department and College Dean):** For this course, students are required to have access to a live webcam.

**Campus Support:**

* Services to Students with Disabilities ([SSWD](https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities/)) offers a wide range of accommodation services that ensure students with disabilities have equal access and opportunity to pursue their educational goals.
* [Student Health and Counseling Services](https://www.csus.edu/student-life/health-counseling/) staff are committed to continuing to provide exceptional service to our campus community. Though many students may be away from campus, most services are offered using secure remote technology.
* If you are experiencing challenges with food, housing, financial or other unique circumstances that are impacting your education, help is just a phone call or email away! The CARES office provides case management support for any enrolled student. Email the CARES office at [cares@csus.edu](mailto:cares@csus.edu) to speak with a case manager about the resources available to you. Check out the [CARES website](https://bit.ly/3fhQ1kY).
* Further resources and information: [Martin Luther King Center](https://www.csus.edu/student-affairs/centers-programs/mlk-scholars/), [Multicultural Center](https://www.csus.edu/student-affairs/centers-programs/diversity-inclusion/multicultural-center.html), [Dreamer Resource Center](https://www.csus.edu/student-affairs/centers-programs/dreamer-resource-center/), [Student Success Center](https://www.csus.edu/college/health-human-services/student-success/), [Academic Advising](https://www.csus.edu/student-life/academic-advising/), [PARC](https://www.csus.edu/student-affairs/centers-programs/peer-academic-resource/),[Reading & Writing Center](https://www.csus.edu/undergraduate-studies/writing-program/reading-writing-center.html), [Grading Policy](https://www.csus.edu/umanual/acad/umg05150.htm), [Academic Calendar](https://catalog.csus.edu/academic-calendar/), [Hornet Honor Code](https://www.csus.edu/student-affairs/_internal/_documents/hornet-honor-code.pdf), [Student Rights and Responsibilities](https://www.csus.edu/umanual/student/stu-0119.htm)