STA 3032 – Engineering Statistics (Summer B 2021)

Class Time: M,T,W,R,F | Period 3 (11:00 AM - 12:15 PM)
Room: **Little Hall 0109**
Class Number - Section Number: 13877 - 4718

Instructor:
Yichen Bai

- Office hours: Monday 1pm – 2pm, Wednesday 1pm -2pm.
- Office: Griffin-Floyd Hall 0209
- E-mail: ybai@ufl.edu

Teaching Assistants:
Teaching assistants will be the main resource for students to ask about homework questions, homework grades and exam grades.

TA's	Office hours	E-mail	Room
Karina Gelis	TBA on CANVAS	kgeliscadena@ufl.edu	
Jaewoong Joo	TBA on CANVAS	jaewoongjoo@ufl.edu	

Course Communication:

- Please send me questions regarding this course content via canvas.
- Check course website daily for up to date announcements.
- Homework submissions should be done via canvas
- E-mail for questions regarding course policies. (Please ensure that STA 3032 is in the subject line. Failure to do so may result in a non-response)

Attendance:

- Attendance is not required but highly recommended. However, students need to be in the classroom when there is a quiz.

Course Website: e-Learning (Canvas)

Textbook:

- Probability and Statistics for Engineers and Scientists (9e), by Walpole, Myers, Myers, and Ye

Other Material:

- Slides will be used in lectures. They may deviate from the textbook. The course will be partly based on, but not completely based on the notes and slides. The major reference notes will be Jiayuan Zhou's notes, who taught this course in Summer B, 2020.

- R and Rstudio will be the tools for programming in this course. Here is a good reference to start with R: https://web.itu.edu.tr/~tokerem/The_Book_of_R.pdf
- A scientific calculator is needed for exams.

Course Description:
A survey of the basic concepts in probability and statistics with engineering applications. Topics include probability, discrete and continuous random variables, confidence interval estimation, hypothesis testing, correlation, regression, and analysis of variance regression.

Prerequisite(s): MAC 2311 – Analytic Geometry and Calculus I

Course Goals and Objectives:
1. Access, manipulate and analyse data using statistical software.
2. Produce appropriate graphs and descriptive statistics for one and two variables, for both categorical and continuous data.
3. Interpret graphs and descriptive statistics for one and two variables.
4. Know and apply the basic probability rules, the concepts of expected value and variance for discrete and continuous variables.
5. Know and apply the Central Limit Theorem, which is crucial for inference.
6. Understand confidence intervals and hypothesis tests.
7. Carry out and interpret one-sample and two-sample analyses for means and proportions.
8. Carry out and interpret statistical modeling using multiple regression and analysis of variance.
9. Know and apply basic quality control procedures.

Letter Grade Distribution:

A (4.00): 90% - 100%	A- (3.67): 85% - 89.99%	
B+ (3.33): 80% - 84.99%	B (3.00): 75% - 79.99%	B- (2.67): 70% - 74.99%
C+ (2.33): 65% - 69.99%	C (2.00): 60% - 64.99%	
D (1.00): 50% - 59.99%	E (0.00): < 50%	

There will be no curve.

Schedule & Assessment:
The quiz dates may be modified due to unforeseen changes. Each quiz may contain one or two problems, and is held during regular class time. The quiz problems will be like homework problems.

Assessment	Percent of Total	Tentative Date(s)
Quiz 1	10%	Fri, Jul 2
Quiz 2	10%	Fri, Jul 9
Quiz 3	10%	Fri, Jul 16
Quiz 4	10%	Fri, Jul 23
Quiz 5	10%	Fri, Jul 30
Quiz 6	10%	Fri Aug 6
Homework	40%	Canvas

Make-Ups:

- Make-up quizzes will only be given for documented cases of emergencies and extreme illnesses.
- Planned make-ups need to be scheduled within at least one week prior to the official exam date. Each case will be reviewed individually. Valid and detailed documentation is a prerequisite for scheduling a make-up under such extenuating circumstances. Being on vacation or booking a trip prior to the completion of the semester is NOT a valid reason.
- The make-up exam may be in a different format, and the class curve to an official exam (if it exists) may not be given for the make-up exam.

Assignments

- There are tentatively 5-8 assignments.
- All deadlines are at 23:59 of the due/end date. These are hard deadlines meaning that any open or ongoing assignments will automatically be submitted at the deadline. For example you should not start an assignment at 23:58. No late assignments will be accepted under any circumstances.
- Students are expected to work independently, unless otherwise specified in writing. Offering and accepting solutions from others is an act of plagiarism, which is a serious offense and all involved parties will be penalized according to the UF Honor Code. Discussion amongst students is encouraged, but when in doubt, direct your questions to the instructor.
- Students are expected to show all work. Homework with answers only will lead to deduction of final scores.
- All electronically submitted work must be as one merged file.

Dropping and Withdraw:

For late course drops and course withdrawals please visit
https://catalog.ufl.edu/UGRD/academic-regulations/dropping-courses-withdrawals/

Incomplete:

An Incomplete grade may be assigned at the discretion of the instructor as an interim grade for a course in which the student has completed a major portion of the course with a passing grade, been unable to complete course requirements before the end of the term because of extenuating circumstances (such as

an accident, or extended hospitalization), and obtained agreement from the instructor and arranged for resolution of the Incomplete grade in the next term. Instructors are not required to assign Incomplete grades and having a failing grade in the course is not a valid reason for requesting an Incomplete. For complete details please visit CLAS incomplete grade policies and forms.

Privacy Policies:
Student records are confidential. Only information designated "UF directory information" may be released without your written consent. UF views each student as the primary contact for all communication. If your parents contact me about your grade, attendance, or other information that is not "UF directory information", they will be directed to contact you. More information can be found here.

Students with Disabilities:
Students with disabilities requesting accommodations should first register with the Disability Resources Program by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Academic Honesty:
Students are held accountable to the UF Honor Code.