CSE321 Introduction to Probability Theory

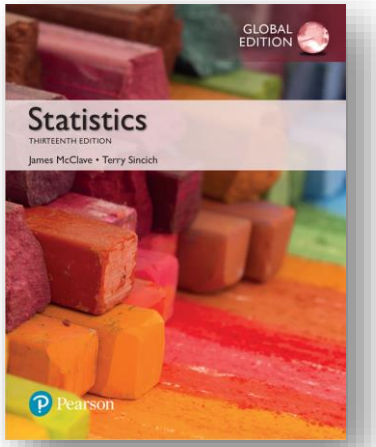
0.0 Course Info

Instructor : Alper Bilge, PhD
Time : Fridays 08.30-12.30
Location : BB04

Grading (tentative)

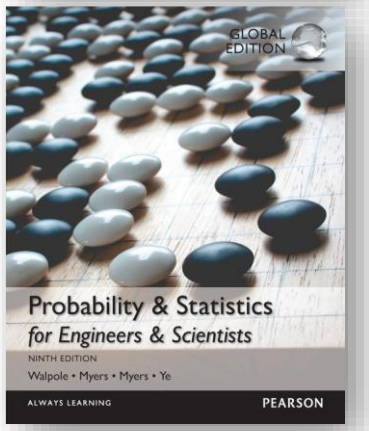
- 1 MT – 40%
- Final – 60%

Books



Statistics (Official course textbook)

McClave, J., Sincich, T., "Statistics", 13th ed. Pearson Education Limited, 2018.



Probability & Statistics For Enginners & Scientists (Supplementary textbook)

Walpole, R. E., Myers, R. H., Myers, S. L., "Probability & Statistics for Engineers & Scientists", 9th ed. Global Edition, Pearson Education Limited, 2018.

Instructor Info

Instructor : Alper Bilge, Phd

Associate Professor of Computer Science

Akdeniz University, Computer Engineering Department

E-mail : abilge@akdeniz.edu.tr

Office Hours : No office hours, please reach on MS Teams.

Course Schedule (tentative)

1. Statistics, data, and Statistical Thinking
2. Methods for describing Sets of data
3. Probability
4. Discrete Random Variables
5. Continuous Random Variables
6. Sampling distributions
7. Inferences Based on a Single Sample: Estimation with Confidence Intervals
8. Inferences Based on a Single Sample: Tests of Hypothesis
9. Inferences Based on Two Samples: Confidence Intervals and Tests of Hypotheses
10. Analysis of Variance: Comparing More than Two Means
11. Simple Linear Regression

Learning outcomes --> At the end of this course, you will be able to

1. Distinguish types of studies and their limitations and strengths,
2. Describe a data set including both categorical and quantitative variables to support or refute a statement,
3. Apply laws of probability to concrete problems,
4. Perform statistical inference in several circumstances and interpret the results in an applied context,
5. Use mathematical tools, including calculus and linear algebra, to study probability and mathematical statistics and in the description and development of statistical procedures,
6. Use a statistical software package for computations with data,
7. Use a computer for the purpose of simulation in probability and statistical inference, and
8. Communicate concepts in probability and statistics using both technical and non-technical language.

Academic Integrity Statement

1. All work in the classes must be your own work. **NO COPYING OR PLAGIARISM IS ALLOWED**. If such is detected, no credit for the exam or project will be given and appropriate actions for academic dishonesty will be taken.
2. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal.
3. *It is the ethical responsibility of students to identify the conceptual sources of work submitted. Failure to do so is dishonest and is the basis for a charge of cheating or plagiarism, which is subject to disciplinary action.*
4. Students are sometimes surprised at what we consider plagiarism.
   - It is plagiarism to use in a homework assignment any text from the instructor's notes and slides.
   - It is plagiarism to use in a homework assignment any text found on the Web.
   - It is plagiarism to use in a computer program any code you did not write.
5. A student may use the ideas expressed in the instructor's slides or in material found on the Web, but the ideas must be expressed in the student's own words, to demonstrate understanding of the topic. Students should cite information sources whenever using ideas or information discovered outside of class (e.g., on the Web or in the library). A student is less likely to be accused of plagiarism when information sources are cited.
6. Students are also prohibited from cooperating on homework assignments unless the instructor states explicitly that cooperating is allowed. Students are allowed to discuss homework assignments, but not to collaborate in solving problems, writing answers, or writing computer software. If two students are found to have cooperated on a homework assignment, both students are considered to have cheated. It does not matter which student did the original work and which student copied.
7. Plagiarism, copying, and other forms of cheating can result in immediate failure of the course.