# **MATH 10** – 18 Elementary Statistics (5 Units)



MW 1:30 – 3:45 PM room S57, CRN: 38643

**Instructor: Nahrin Rashid** 

Email: <a href="mailto:rashidnahrin@fhda.edu">rashidnahrin@fhda.edu</a> or Canvas Inbox

Office hours via Zoom: Monday 4:45 - 8:45 or by appointment

**Support:** It can be frustrating when you need help, so please know that I am here to help you manage challenges and any frustration you may experience with the course. Please maintain close contact with me and I will do my best to support you.

How to reach out: If you have a question, the quickest and easiest way to contact me is via the Canvas inbox or email me <a href="mailto:responding-respon

## **Tutoring Services:**

On Campus in S-43 (MATH course tutoring only)

- Monday through Thursday 9am to 6pm
- Friday 9am-12:30pm
- Friday, Saturday and Sunday CLOSED

### On Zoom Peer Tutoring

- Monday through Thursday 9am to 6pm
- Friday 9am-12:30pm
- Saturday and Sunday CLOSED

For drop-in tutoring outside these hours please use our <u>online tutoring</u> vendors (24/7 for most subjects)

**Prerequisite:** Intermediate Algebra (Math 109, Math 114, or Math 130) or equivalent. Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273.

Course Description: Introduction to data analysis making use of graphical and numerical techniques to study patterns and departures from patterns. The student studies randomness with an emphasis on understanding variation, collects information in the face of uncertainty, checks distributional assumptions, tests hypotheses, uses probability as a tool for anticipating what the distribution of data may look like under a set of assumptions, and uses appropriate statistical models to draw conclusions from data. The course introduces the student to applications in engineering, business, economics, medicine, education, social sciences, psychology, the sciences, and those pertaining to issues of contemporary interest. The use of technology (graphing calculators) will be required in certain applications. Where appropriate, the contributions to the development of statistics by men and women from diverse cultures will be introduced.

#### **Course Content:**

- 1. Displaying and Analyzing Data with Graphs
- 2. Descriptive Statistics
- 3. Populations and Sampling
- 4. Probability
- 5. Discrete Random Variables
- 6. Continuous Random Variables
- 7. The Central Limit Theorem
- 8. Point Estimation and Confidence Intervals
- 9. One Population Hypothesis Testing
- 10. Two Populations Inference
- 11. Chi-square Tests for Categorical Data
- 12. One Factor Analysis of Variance (ANOVA)
- 13. Correlation and Linear Regression

**Textbook**: Introductory Statistics by Barbara Illowsky and Susan Dean, ISBN: 978-1-938168-20-8

*NOTE:* This textbook is available to download for free (online or PDF) on: http://openstaxcollege.org/textbooks/introductory-statistics/



Calculator: Required Graphing calculator (TI-83/TI-83 Plus/TI-84/TI-84 Plus)



**Software:** All homework/quizzes will be done online using WebAssign which is an internet-based software. You will need to register at www.webassign.net to use this internet-based software. You will need the class key given by me in order to self-register. **Class key for WebAssign: deanza 3513 6694** 

**Student Conduct:** You are expected to be honest and ethical at all times in the pursuit of academic goals. When completing your work on an assignment or in taking a test, be sure to do your own work. Copying or using another person's work is plagiarism or cheating, so please be sure to submit your own work. Anyone caught cheating on an exam will receive an automatic 0 and be reported to the Dean of the PSME Division.

**Discussion on Canvas:** Post and answer questions in Canvas weekly discussion boards. These discussions will count for 5% of your grade.

Homework: Plan to log in to WebAssign daily. Homework will be assigned weekly and will have a due date. All homework must be submitted by 1:00 PM on the due date. You must set up an account by Friday, January 10 or you will be dropped from the class. If you have a homework problem you are not able to complete, you can send me your questions on WebAssign by clicking on "Ask my Instructor". At the end of the quarter your lowest homework score will be dropped. Homework will count for 15% of your term grade. Please do not procrastinate! You can request extension on the homework up to five times during the quarter. Class key for WebAssign: deanza 3513 6694

**Quizzes:** There will be a quiz every week via WebAssign assigned intermittently throughout the term to test your skills on the concepts we are covering in class and online. Once you start the quiz, you will have 1 hour to complete it, and you will get two attempts on each quiz. **NO** make-up quiz will be given.

These quizzes will count for 20% of your grade.

**Midterms**: There will be four proctored exams during the quarter on WebAssign via Zoom. Once you start the exam, you will have 2 hours to complete it. These exams will be completed during the class and will contain the materials covered in the lectures, online, and in the book. If you are unable to take an exam for any reason, **a makeup exam will not be given**. To compensate for this, I will drop your lowest exam score. These exams will count for 40% of your term grade.

**Final Examination:** If you do not take the final exam, you **WILL NOT** receive a passing grade. There will be a proctored comprehensive final examination on **Monday**, **March 24**<sup>th</sup>, **1:45 to 3:34 PM in computer lab S44.** This test will count for 20% of your term grade.

**Accessibility Accommodations:** If you have a documented disability and wish to discuss academic accommodations, or if you would need assistance in the event of an emergency evacuation, please inform me as soon as possible.

# **Important Dates**

- The last day to add classes is January 19, 2025.
- The last day to drop for a full refund and without a "W" is January 19, 2025.
- Martin Luther King Jr. Holiday no classes, offices closed is January 20, 2025.
- Presidents' Holiday no classes, offices closed, February 14 17, 2025.
- Last day to drop classes with a "W" is February 28, 2025.
- Final Exam Week March 24 28.

## **Grade Breakdown**

| A+: 99% and above | B+: 87 - 89% | C+: 77 - 79% | D: 63 - 66%  |
|-------------------|--------------|--------------|--------------|
| A: 93 - 98%       | B: 83 - 86%  | C: 70 - 76%  | D-: 60 - 62% |
| A-: 90 - 92%      | B-: 80 - 82% | D+: 67 - 69% | F: < 60%     |

# **Tentative Schedule for Math 10, Winter 2025**

| Chapter 1   |
|---|
| Chapter 2, 3  |
| Chapter 4 Exam 1: Wednesday, January 22 (Chapter 1, 2, 3) in computer lab S44 |
| Chapter 5   |
| Chapter 6   |
| Chapter 7   |
| Exam 2: Monday, February 10 (Chapter 4, 5, 6) in computer lab S44             |
| Chapter 8, 9  |
| Chapter 10  |
| Exam 3: Wednesday, February 26 (Chapter 7, 8, 9) in computer lab S44          |
| Chapter 11  |
| Chapter 12  |
| Chapter 13  |
| Exam 4: Monday, March 17 (Chapter 10, 11, 12) in computer lab S44             |
| Finals Week   |
| Final Exam: Monday, March 24 1:45 to 3:45 (Comprehensive) in computer lab S44 |
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This syllabus is subject to change at the instructor's discretion.

## **Student Learning Outcome(s):**

- Organize, analyze, and utilize appropriate methods to draw conclusions based on sample data by constructing and/or evaluating tables, graphs, and numerical measures of characteristics of data.
- Identify, evaluate, interpret and describe data distributions through the study of sampling distributions and probability theory.
- Collect data, interpret, compose and evaluate conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.

### **Office Hours:**

M 04:45 PM 08:45 PM Zoom