

MATH 115 Introduction to Statistics and Probability

INSTRUCTOR: Robert Garry

E-MAIL: rgarry@hawaii.edu

OFFICE: Mana'opono 110a

OFFICE HOURS: Tuesday and Thursday 11:30 – 2:00

TELEPHONE: (808) 236-9276

EFFECTIVE DATE: Fall 2016

CRN 63246 Days TR Time 8:30 – 9:45 Room Manao 115

Windward Community College Mission Statement

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

Course Description

Utilizes basic statistical topics including measures of central tendency and dispersion, classification of variables, sampling techniques, elementary probability, normal and binomial probability distributions, tests of hypothesis, linear regression and correlation in order to solve problems.

Pre-Requisite(s): Grade of C or better in Math 25, 26, 28, 29, 75X or higher or equivalent, satisfactory math placement test score, or consent of instructor.

Student Learning Outcomes

Upon completion of the course, the student will be able to:

- Demonstrate proficiency in graphing, statistical data, calculating measures of central tendency, measures of variation, percentiles, correlation coefficients, and regression line.
- Interpret statistical information provided in graphs, in summary measures (central tendency, dispersion, percentile), and in the correlation coefficient.
- Solve probability problems involving compound events, independent events, mutually exclusive events, and conditional probability.
- Calculate and interpret probabilities for normal or binomial distributions, including the use of the Central Limit Theorem.
- Demonstrate the use of inferential statistics.
- Utilize appropriate statistical terminology and mathematical symbols to effectively communicate mathematics in written and/or oral form.

Note: All SLOs assessments are embedded in class activities, homework, quizzes, or Exams.

Required Materials

Text: Fundamentals of Statistics (4rd ed.) Sullivan, M.

Calculator: Anyone of the following: TI-83, TI-83+ or TI-84+ graphing calculator.

MyMathLab online access (an access code is included with the textbook, or available for purchase separately). Course ID: garry26116

Course Content

- Data Collection Ch. 1
- Descriptive Statistics Ch. 2 - 4
- Elementary Probability Ch. 5
- An Introduction to Probability Distributions Ch. 6 & 7
- Sampling Distributions and the Central Limit Theorem Ch. 8
- Statistical Inferences and Hypothesis testing for a single parameter Ch. 9 & 10
- Inferences on Categorical Data Ch. 12

Assessment

- Attendance 100 pts
- Online: Homework and Chapter Tests 500 pts
- Written Project Assignments 100 pts
- Midterms 200 pts
- Final Exam 100 pts

Letter Grade Definition

A 90% - 100% of the cumulative points possible

B 80% - 89% of the cumulative points possible

C 70% - 79% of the cumulative points possible

D 60% - 69% of the cumulative points possible

F Less than 60% of the cumulative points

CR/NC 70% or better

N Grade See Math Department Policies

Learning Resources:

• Testing Center: La'akea (Library Learning Commons) Room 228 Phone: (808) 235-7498

http://windward.hawaii.edu/Testing_Center/index.php

• Math Lab: La'akea (Library Learning Commons) Room 220

http://windward.hawaii.edu/Math_Lab/

• OLA (UH Online Tutoring): <http://manoa.hawaii.edu/ola/>

DISABILITIES ACCOMMODATION STATEMENT

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.

Tentative Schedule

8/23	An Introduction to Statistics	Ch.
8/25		
8/30		
9/1		
9/6		
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