Math 115, Statistics – Spring 2013

Instructor: Allyn Fetherolf
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Class Time and Room: Tuesday/Thursday 8:30-9:45am (Mana'opono 102)
Office Location: Mana'opono 110a
Office Hours: Tuesday/Thursday 11:30-1:00pm - MWF 1:00-2:30pm
Course Website: math.allynfetherolf.com

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.

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.

Required Materials

- Sullivan, M. (2009). Fundamentals of Statistics (3rd ed.). ISBN: 0-13-156987-29
- Anyone of the following: TI-83, TI-83+, TI-84 or TI-84+ graphing calculator
- MyMathLab online access (an access code is included with the textbook, or available for purchase separately).

Prerequisite

Grade of "C" or better in MATH 25 or equivalent, or satisfactory math placement test score, or consent of instructor.

Course Description

This is an introduction to topics in statistics, with a brief look at elementary probability. Participation in the course will allow the student to discover and appreciate the value of statistics in everyday life. The student will be adequately prepared for applying statistics within the business, natural sciences, social science, health science and computer science majors.

Student Learning Outcomes

The student learning outcomes for the course are:

1. Demonstrate proficiency in graphing, statistical data, calculating measures of central tendency, measures of variation, percentiles, correlation coefficients, and regression line.

2. Interpret statistical information provided in graphs, in summary measures (central tendency, dispersion, percentile), and in the correlation coefficient.

3. Solve probability problems involving compound events, independent events, mutually exclusive events, and conditional probability.

4. Calculate and interpret probabilities for normal or binomial distributions, including the use of the Central Limit Theorem.

5. Demonstrate the use of inferential statistics.

6. Utilize appropriate statistical terminology and mathematical symbols to effectively communicate mathematics in written and/or oral form.

Course Requirements

Attendance and Participation

Students are expected to be on time, attend every class, and stay for the entire period. Should it be absolutely necessary to miss a class, it is the STUDENT'S responsibility to make up any missed material and collect any homework assignments given.

Homework

Homework will be performed through MyMathLab (www.mymathlab.com), and will be assigned after every class meeting. Assignments given out on Tuesday will be due Thursday at 11:59pm, and assignments given out on Thursday will be due the following Tuesday at 11:59pm. Late homework may be submitted, but will receive 0 credit.

To access the homework for our course, you will need the following Course ID: **fetherolf12081**

Please note that access to MyMathLab will be required from the first day of the course and cannot be refunded. I strongly recommend signing up for the "temporary access" to MyMathLab. It will allow temporary access to the course homework (at no cost). If you decide to withdraw from the course then you will not be charged. Alternatively, the temporary access is easily converted to full access (with a paid access code).

On average, a student should expect to spend ~9 hours per week on homework and course review.

Grading

Course grades will be a combination of homework, midterm and final exam scores.

Homework (30%)
Exam 1: (15%)
Exam 2: (15%)
Exam 3: (15%)
Final Exam: Take Home (12.5%) - In Class (12.5%)
**The final exam is cumulative*

More information about the mid-semester exams, and the final exam, will be distributed later in the semester.

In order to achieve a passing grade and receive credit for this course, **students must earn a semester average of 60%.** Each final letter grade will be assigned according to the level of achievement provided in the scale below:

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
<60%	F

Makeup Testing

Absences from an exam requires instructor approval **before** the scheduled exam time. In circumstances that do not allow approval to be given before the scheduled exam time (medical emergency, car accident, etc.), notify the instructor as soon as possible. Approval to miss an exam, or to take a makeup exam is given on a case by case basis. It is strongly recommended that all students do not miss exams, as any unapproved excuse will result in a 0 for that exam score.

Additional Information

Please check your WCC e-mail account frequently for important announcements. Note this syllabus is subject to change in extenuating circumstances. For additional academic information refer to WCC website www.windward.hawaii.edu or go to www.hawaii.edu for system wide information.

Tentative Schedule*

Week	Class Topic
Jan 7	Data Collection Jan 8 - Sections 1.1 - 1.3 Jan 10 - Sections 1.3 - 1.6
Jan 14	Organizing and Summarizing Data & Numerically Summarizing Data Jan 15 - Sections 2.1 - 2.3 Jan 17 - Sections 3.1 - 3.3
Jan 21	Describing the Relation Between Two Variables Jan 22 - Sections 3.4 - 3.5 Jan 24 - Sections 4.1 - 4.2
Jan 28	Jan 29 - Sections 4.2 - 4.3 Jan 31 - Review for Exam I
Feb 4	Probability Feb 5 - **Mid Term Exam 1** Feb 7 - Sections 5.1 - 5.2
Feb 11	Probability Feb 12 - Sections 5.3 - 5.4 Feb 14 - Sections 5.5 - 5.6
Feb 18	Discrete Probability Distributions Feb 19 - Section 6.1 Feb 21 - Section 6.2
Feb 25	The Normal Probability Distribution Feb 26 - Sections 7.1 - 7.3 Feb 28 - Sections 7.3 - 7.5
Mar 4	Mar 5 - Review for Exam 2 Mar 7 - **Mid Term Exam 2**
Mar 11	Sampling Distributions Mar 12 - Section 8.1 Mar 14 - Section 8.2
Mar 18	Estimating the Value of a Parameter using Confidence Intervals Mar 19 - Sections 9.1 - 9.2 Mar 21 - Sections 9.3 - 9.4
Mar 25	Hypothesis Tests Regarding a Parameter Mar 26 - Spring Recess Mar 28 - Spring Recess
Apr 1	Hypothesis Tests Regarding a Parameter & Test For Independence Apr 2 - Sections 10.1 - 10.3 Apr 4 - Sections 10.3 - 10.5
Apr 8	Test For Independence Apr 9 - Sections 12.1 Apr 11 - Section 12.2
Apr 15	Apr 16 - Review for Exam 3 Apr 18 - **Mid Term Exam 3**
Apr 22	Apr 23 - Selected Topic (to be decided) Apr 25 - Review for Final Exam - **Take home final exam given out**
Apr 29	Apr 30 - Review for Final Exam
Final Exam	**Thursday, May 9th, 8:30-10:30am - Take home final due**

***schedule is subject to change if required**