



UNIVERSITY of HAWAII
WINDWARD COMMUNITY COLLEGE

Ke Kulanui Kaiāulu o ke Ko'olau

Math 115 Introduction to Statistics and Probability

Fall 2024

3 Credits | CRN 64285

Meets on Fridays from 11:30 am - 12:45 pm in Mana'opono 113

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 the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment – inspiring students to excellence.

Instructor Information

How to Contact Your Instructor

Bethany Hopkins

Office: Hale Mana'opono 112A Office Phone: (808)236-9282

Office Hours: Monday 9-11 am ([Zoom](#)), Friday 10:30-11:30 am (in person), & by appointment

Email: hopkinsb@hawaii.edu

ZOOM: <https://hawaii.zoom.us/j/96724394576>

About

Aloha, I'm Bethany Hopkins, your instructor for this course. I'm thrilled to embark on this learning journey with you. Feel free to reach out to me via email for any questions or concerns. I will respond within 24 hours, excluding weekends and holidays.

Alternate Contact Information

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alaka'i 121
- Phone: (808) 235-7422

Course Information

Catalog 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.

Prerequisites: 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.

Activities Required at Scheduled Times Other than Class Times

MyLab Math is an online learning resource. Every week you will be assigned online assignments through MyLab Math. Most exercises include learning aids, such as guided solutions, sample problems, and extra help as you're working through them, and they offer helpful feedback when you enter incorrect answers. A variety of multimedia resources are also available in the homework exercises. You can link to the ebook, video clips, and animations to improve your understanding of key concepts. Videos are captioned in English, and several courses are also captioned in Spanish.

Student Learning Outcomes

As a result of taking this course, students can expect to attain the following outcomes:

1. Calculate and interpret statistical information.
2. Calculate and interpret probabilities for binomial or normal distributions, including the use of the Central Limit Theorem.
3. Demonstrate the use of inferential statistics.
4. Utilize appropriate statistical terminology and mathematical symbols to effectively communicate mathematics in written and/or oral form.

Note: All SLO assessments are embedded in class activities, homework, quizzes, or exams.

Foundations Quantitative Reasoning Hallmarks

Math 115 also fulfills 3 credits of the General Education requirements (Foundations Quantitative Reasoning) for both an A.A. degree at WCC and a Bachelor's degree at 4 year UH institutions. Consequently, it meets the following hallmarks of the Quantitative Reasoning requirement:

1. Provide students with theoretical justifications for, and limitations of, mathematical or statistical methods, and the formulas, tools, or approaches used in the course.
2. Include application of abstract or theoretical ideas and information to the solution of practical quantitative reasoning problems arising in pure and applied research in specific disciplines, professional settings, and/or daily and civic life.

3. Provide opportunities for practice and feedback that are designed to help students evaluate and improve quantitative reasoning skills by including a course component at least once per week with a maximum 30:1 student-to-teacher ratio.

4. Be designed so that students will be able to

- a. Identify and convert relevant quantitative information into various forms such as equations, graphs, diagrams, tables, and/or words;
- b. Select appropriate techniques or formulas, and articulate and evaluate assumptions of the selected approaches.
- c. Apply mathematical tools and perform calculations (including correct manipulation of formulas);
- d. Make judgments, create logical arguments, and/or draw appropriate conclusions based on the quantitative analysis of data, the assumptions made, the limitations of the analysis, and/or the reasonableness of results; and
- e. Effectively communicate those results in a variety of appropriate formats.

Required Materials

MyLab Math (MLM) via IDAP:

The MyLab Math (MLM) Online Program comes with the eBook *Fundamentals of Statistics: Informed Decisions Using Data*, 6th edition, by Michael Sullivan. MLM registration will be through IDAP via the VitalSource link in Laulima.

This course will be participating in the Bookstore's Interactive Digital Access Program (IDAP). Through this program, you will access your course material digitally, and it will be available to you by the first day of class.

A charge for the digital course material through IDAP will be added to your MyUH account.

You have the option to opt-out of receiving your course material through IDAP. By opting-out, you will lose access to the course material and the charge will be refunded on your MyUH account. If you do not opt-out, the charge will stay on your MyUH account. Any unpaid charges on your MyUH account will turn into a hold. Holds on your account will prevent you from accessing various services within the University.

You may opt-out by visiting your unique Inclusive Access Student Portal, which can be found in your IDAP welcome email (Subject Line: "IMPORTANT: You have enrolled in an IDAP Course").

For more information regarding IDAP, please contact your campus bookstore.

Learning Resources

- Symbolab: <https://www.symbolab.com>
- Wolfram Alpha: <http://www.wolframalpha.com>
- Desmos Graphing Calculator: <https://www.desmos.com>
- Khan Academy Videos: <http://www.khanacademy.org>

- Tutor.com: <https://windward.hawaii.edu/tutor.com/>

Academic Support on the WCC Campus

- The Math Lab offers free peer tutoring to WCC students and is located in La'akea 220. <https://windward.hawaii.edu/services-for-students/tutoring/ka-piko/>
- TRiO Student Support Services (TRiO SSS) is a federally funded program with the purpose of increasing retention, graduation, and transfer rates from two-year to four-year colleges/universities for low-income, first-generation, and/or disabled college students. <https://windward.hawaii.edu/services-for-students/tutoring/trio-sss/>

Course Format

This is a 16-week hybrid course that combines both face-to-face and online components. Students are expected to keep pace with the posted assignments. Students are expected to interact with the instructor and other members of this class with professionalism. There will be a 10% grade deduction on any late homework on MLM. All homework and test due dates are outlined on MyLab Math.

Course Technology

Laulima Learning Management System

- [Laulima \(Sakai\) Accessibility](#)
- Laulima will be unavailable daily from 3:00 am-4:00 am HST for server backup and maintenance.
- Laulima automatically logs you out *if it does not detect activity for two hours*. A warning message will appear, notifying you of the lack of activity. Activity is defined as clicking a button in Laulima, such as "Save Draft" or "Next" (in a test), clicking on a course tab, or taking an action that sends information to the server.

Regular Substantive Interaction

Online courses at Windward Community College follow these guidelines for ensuring quality instruction: [RSI Definition-WCC](#).

Participation Verification

Campuses are required by federal regulations to verify the participation of students in their classes. In accordance with [Executive Policy 7.209](#), all students in the University of Hawai'i system are required to establish "participation" to ensure that they are not dropped from their class(es). Students who fail to participate by the late registration period for a class will be administratively

dropped from that class. Students may also be dropped from dependent prerequisite and/or corequisite classes if both courses do not establish participation.

Grading Policy

A letter grade for the course will be assigned according to the level of achievement as provided in the table below:

GRADE	DEFINITION
A	90% - 100% of the total possible points
B	80% - 89% of the total possible points
C	70% - 79% of the total possible points
D	60% - 69% of the total possible points
F	Less than 60% of the total possible points
Cr	70% - 100% of the total possible points
NC	Less than 70% of the total possible points
I	Incomplete
W	Official Withdrawal

Note: Students must apply for the Cr/NC grading option at the Admissions Office. Consult the WCC Catalog for deadlines.

Note: W grade is given only when the student officially withdraws from the course at the Admissions Office. Consult the WCC Catalog for deadlines.

Note: The I grade is a temporary grade given at the instructor's discretion when a student has failed to complete a small part of a course because of circumstances beyond his or her control. A student may qualify for the I grade if (a) they are unable to take the final exam and (b) taking the final exam could possibly raise their course grade.

All grades and course materials will be accessed through Pearson MyLab Math and Laulima. To view your overall grade in the course, log in to MyLab Math and click on Student Gradebook in the left-side menu. The grade breakdown will be as follows:

Assignment	Percentage
Term Project	20%
5 Tests	40%
MyLab Math (MLM) Homework	30%
Participation Points (13 points total)	10%
Total	100%

Assessment Tasks and Grading

Tests: There will be 5 computer-based tests through MLM. The tests are timed (2 hours). The tests are not proctored and can be taken on any computer. You will have 2 attempts for each test, and I will take the highest score. Tests are open notes and you may use Statcrunch, Excel, and a calculator.

MLM Homework: Computer-based homework is due through the MLM program. There will be a 10% grade deduction for problems submitted after the due date. The final date of submission for late homework is 12/20/24. You have unlimited attempts at homework problems and your highest score will be saved.

Term Project: 20% of your final grade is a statistical project. It covers nearly everything we will cover in the class, including taking an unbiased sample, constructing confidence intervals, and testing hypotheses. Each student will download the supplied project template, change the words, graphs, and statistics to their own, save it as a PDF, and submit it through Lulima before Sunday, December 15th at 11:59 pm.

Participation Points: From the start of the semester until the last instructional week, a student can earn a total of at most 13 participation points. The purpose of scheduled class meetings is to provide students with an opportunity to interact with their instructor. The student can earn one participation point for each scheduled MATH 115 in-person meeting if they participate during the entire class period and work through the course material. A student who is more than 15 minutes late (or leaves more than 15 minutes early), may expect to receive only partial participation points for that day.

Weekly Assignments

Week	Date	Assignments	Due Dates
1	8/26/24	Lulima: Read the syllabus, connect to MyLab Math using the VitalSource link, Data Collection MyLab Math (MLM): 1.1, 1.2, 1.3	9/1/24 (all assignments due by 11:59 PM)
2	9/02/24	Sampling Methods MLM: 1.4, 1.5 1.6	9/8/24
3	9/09/24	Summarizing Data in Tables and Graphs MLM: 2.1, 2.2, 2.3, Test 1	9/15/24
4	9/16/24	Lulima: Project Component #1 Numerically Summarizing Data MLM: 3.1, 3.2, 3.3	9/22/24
5	9/23/24	Lulima: Project Component #2	9/29/24

Week	Date	Assignments	Due Dates
		Measures of Position and Outliers MLM: 3.4, 3.5, 4.1, Test 2	
6	9/30/24	Describing the Relation Between Two Variables MLM: 4.2, 4.3, 4.4	10/6/24
7	10/07/24	The Normal Probability Distribution MLM: 7.1, 7.2, 7.3	10/13/24
8	10/14/24	Sampling Distributions MLM: 7.4, 8.1, 8.2, Test 3	10/20/24
9	10/21/24	Estimating the Value of a Parameter MLM: 9.1, 9.2, 9.3	10/27/24
10	10/28/24	Hypothesis Tests MLM: 10.1, 10.2	11/3/24
11	11/04/24	Hypothesis Tests for a Population Mean MLM: 10.3, 10.4, Test 4 Laulima: Project Component #3	11/10/24
12	11/11/24	Probability Rules MLM: 5.1, 5.2, 5.3 Laulima: Project Component #4	11/17/24
13	11/18/24	Conditional Probability and Counting Techniques MLM: 5.4, 5.5, 5.6, Test 5	11/24/24
14*	11/25/24	No class on Friday 11/29 due to Thanksgiving; No Assignments due	
15	12/02/24	Discrete Random Variables MLM: 6.1, 6.2	12/8/24
16*	12/09/24	No class on Friday 12/13 Laulima: Complete Term Project	12/15/24
Finals		Term Project due in Laulima no later than December 15th, 2024 by 11:59 PM	

*No Class: Nov. 29 - Thanksgiving Recess - Non-instructional day
Dec. 13 - Last day of instruction is on Dec. 12th

Academic Integrity

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through the use of quotes or summarizing with reference to the original author.

In this class, students who commit academic dishonesty, cheating, or plagiarism will have the following consequence(s):

Students will receive a failing grade for plagiarized assignments.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

[Windward CC Student Conduct Information](#)

[UH System Student Conduct Policy EO 7.208](#)

Student Responsibilities

- Arrive to class on time
- Have access to a reliable high-speed internet connection
- Have adequate computer skills
- Check Lulima daily
- Check school emails regularly
- Be self-motivated
- Set aside adequate study time
- Students may check the [Student Notifications](#) page on the website for canceled classes

How to Seek Academic or Technical Support

Academic Support

- [Windward Community College Library](#)
- [Library eResources](#)
- [Ka Piko Writing Lab](#)
- [Ka Piko Speech Lab](#)
- [Ka Piko Math Lab](#)
- [Evening and Online Learning at Windward Community College](#)
- [STAR Balance](#)

Technical Support

- [UH ITS Help Desk](#) – email help@hawaii.edu or call 956-8883 (or 1-800-558-2669) for Laulima and most technology support. Available 24 hours a day, 7 days a week, including holidays.
- Student Tech Support - email winhelp@hawaii.edu, call 808-235-7437, or stop by in person at Hale La‘akea 228. Available Monday–Friday from 8:00 am–4:00 pm.
- Laulima – Click on the [Request Assistance](#) link at the bottom of any Laulima Page to fill out and submit a question and get your answer via email.
- [Information Security for Students](#)

College Policies & Support Services

Disabilities Accommodations Statement

The Windward Community College’s Disability Student Services Office (WCC-DSSO) is committed to providing equal access to qualified students with disabilities.

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to participate fully in this class, you are encouraged to contact the Disability Specialist Counselor, Roy Inouye, to discuss reasonable accommodations that will help you succeed in this class. The Disabilities Counselor can be reached at 808-235-7448, wccdsso@hawaii.edu, or stop by the office (Hale Kako‘o 106) for more information.

Basic Needs

Basic needs include food and housing, childcare, mental health, financial resources, and transportation. Student basic needs security is critical for ensuring strong academic performance, persistence and graduation, and overall student well-being. If you or someone you know is experiencing basic needs insecurity, please see the [UH System Basic Needs website](#).

Mental Health Counseling

Mental Health and Wellness at Windward Community College counseling services and activities on campus to support students’ life goals as well as their academic goals. Information about services can be found at the [WCC Mental Health & Wellness website](#).

UH Alerts

The UH Alert emergency notification system alerts the university community in the event of a natural, health or civil emergency. The information you provide will only be used in the event of an emergency that impacts the health and safety of the UH community or the closure of whole campuses. It will not be shared with others or used for routine UH communications or announcements. To sign up, visit [UH Alerts website](#) for more information.

Financial Aid

If you are receiving financial aid and are contemplating not completing the course, BEFORE you withdraw, it is highly recommended that you contact the Financial Aid Office at 808-934-2712 or email them at wccfao@hawaii.edu to discuss the impact this decision may have on your financial aid eligibility.

Student Conduct Code

Windward Community College follows the University of Hawai'i Code of Student Conduct which defines expected conduct for students and specifies those acts subject to University sanctions. Students should familiarize themselves with the Code of Student Conduct since, upon enrollment at Windward Community College, the student has placed herself/himself under the policies and regulations of the University and its duly constituted bodies. The disciplinary authority is exercised through the Office of the Vice Chancellor for Student Affairs. Copies of the Student Conduct Code are available at the Office of the Vice Chancellor for Student Affairs or [online](#).

Title IX - Sex Discrimination And Gender-Based Violence Resources

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Leslie Cabingabang, UH System Confidential Advocate
Phone/Text: (808) 348-0432 or (808) 341-4952
Email: advocate@hawaii.edu
Office: Hale Kāko'o 107 (Wednesdays)

Mykie E. Menor Ozoa-Aglugub, J.D., Title IX Coordinator
Phone: (808) 235-7468
Email: mozoa@hawaii.edu
Office: Hale Kāko'o 109

Desrae Kahale, Mental Health Counselor & Confidential Resource
Phone: (808) 235-7393
Email: dkahale3@hawaii.edu
Office: Hale Kāko'o 101

Karen Cho, Deputy Title IX Coordinator
Phone: (808) 235-7404
Email: kcho@hawaii.edu
Office: Hale 'Alaka'i 120

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University's Title IX resources, and the University's Policy, Interim EP 1.204, go to manoa.hawaii.edu/titleix/

I strongly uphold the University of Hawai'i's non-discrimination policy in my class. Any discriminatory acts or language on the basis of race, religion, sex, gender, gender identity, age, national origin, ancestry, disability, or sexual orientation will NOT be tolerated. We will maintain our classroom as a safe environment for all. [LGBTQ+ Equality | University of Hawaii System](#)

