



UNIVERSITY of HAWAI'I
WINDWARD COMMUNITY COLLEGE

Ke Kulanui Kaiāulu o ke Ko'olau

Math 103 College Algebra

4 Credits (CRN 64151)

Asynchronous

INSTRUCTOR: Robert Garry
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OFFICE HOURS: T Th 10 am
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EFFECTIVE DATE: Fall 2024

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.

CATALOG DESCRIPTION

Linear equations, inequalities, systems of equations, polynomials, functions, fractional expressions and equations, exponents, powers, roots, quadratic equations and functions; rational, exponential and logarithmic functions.

Pre-Requisite(s): "C" or better in MATH 25, 26, 29, 82 or equivalent, co-requisite enrollment in MATH 88, satisfactory math placement test score, or consent of instructor.

WCC: FS/FQ

Lecture Videos, the eText and MyLab Math Assignments

MyLab Math is our online learning program. Each week you will open the Lualima page in the menu panel. There you will see the weekly assignments. Watch the daily **online lecture video**. Next, you will go to **MyLab Math** read through the related **eText** chapter and then work through the **Homework assignments** found in **MyLab Math**. As you work through the HW assignments, you will find helpful feedback when you enter incorrect answers. Also, you have an opportunity the redo missed problems for full credit. The **eText**, that is the textbook for our class, is included with **MyLab Math**. A variety of multimedia resources are also available in the eText. You can link to the eText to watch video clips that show step-by-step solutions to sample problems, and applications to improve your understanding of key concepts. Videos are captioned in English.

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. You will need to register for the **MyLab** courseware at the Pearson website. 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 unpaid² 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**.

Getting Started with MyLab Math

The following steps for adding a MyLab Math account are covered in the Getting Started Video

1. Enter your Laulima course and locate the VitalSource app in the menu panel.
2. Select **VitalSource for UH Windward CC IDAP** from the menu.
3. Under My Courses Home, your Pearson materials tied to this course will appear.
 - If you are currently *Opted In* for course material access, the “I am opted-in to this resource” checkbox is selected. To access your course materials, select the
 - **Launch Courseware** button.
4. Select the **Open MyLab & Mastering** button to launch your Pearson course.
5. If prompted, select **I Accept** to agree to Pearson’s End User License Agreement.
6. You link your Laulima user account to either an existing Pearson account by entering your Pearson Username and Password or to a new user Pearson account by selecting the Create button.

STUDENT LEARNING OUTCOMES

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

1. Graph or interpret algebraic relations that are relevant to the topics in this course.
2. Employ algebraic techniques to find the solutions to equations or inequalities, or systems of equations or inequalities appropriate to the level of this course.
3. Use algebraic techniques to analyze and solve applied problems.
4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

FOUNDATION Quantitative Reasoning HALLMARKS

Math 103 also fulfills 4 credits of the General Education requirements (Foundations Quantitative) for both the AA degree at WCC and a Bachelor’s degree at UH Manoa. Consequently, it meets the hallmarks of the quantitative reasoning requirement.

The course will:

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-teaching 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;
 - e. Effectively communicate those results in a variety of formats

COURSE TASKS

This is an asynchronous course. Students independently watch the lecture videos found on our Lualima page in order to complete homework sets and quizzes. After the completion of each unit, a review and an exam will be conducted.

ASSESSMENT TASKS AND GRADING

The student will demonstrate competency in the objectives by completing and turning in all assignments, by taking unit exams, and by taking a comprehensive final exam. Unit exams and the final exam are open book and notes.

Unless permission is granted by the instructor, assignments and tests must be completed and submitted to the instructor at the specified date and time. **Due dates for section HW assignments and Unit Exams are found on your MyLab Math Website.**

Points will be assigned to each graded assignment, and tests as follows:

MyLab Math. Homework sets will be graded by a percent correct score. Assignments completed by the designated date may be redone to improve the score. Total 600 pts

Unit Exams. There are three unit exams. A unit exam must be taken on the day of assignment, and will be scored on a 100 point scale. If an exam is completed by the assigned due date, there is an option for a retake. Total 300 pts

Final Exam. The final exam will cover the concepts and skills in the entire course. The final exam is double the length in time of a unit exam and will be scored on a 100-point scale. There is no retest or make-up for the Final.

Total 100 pts

Retake Retake opportunity for exams will be possible. To retake an exam HW assignments must be completed with a score > 90%

Course grade. 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% - <90% of the total possible points
C	70% - <80% of the total possible points
Cr	70% - 100% of the total possible points
NC	<70% of the total possible points
D	60% - <70% of the total possible points
F	< 60% of the total possible points

MyLab	60%
Unit Exams	30%
Final Exam	10%

Total: 100%

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.

COURSE CONTENT

Concepts or Topics

A Review of Basic Algebra including rational exponents, radicals, rational expressions, and factoring (*FS & FQ*)

Equations and Inequalities including solving quadratic equations, complex numbers, linear and compound inequalities, absolute value equations and inequalities, and applications (*FS & FQ*)

The Rectangular Coordinate System and Graphs of Equations including circles, linear functions, and algebra of functions (*FS & FQ*)

Polynomial and rational functions (*FS & FQ*)

Exponential and Logarithmic Functions (*FS & FQ*)

Linear Systems (*FS & FQ*)

Skills or Competencies

1. a positive, inquiring attitude towards mathematics;
2. setting aside adequate time for studying and working of problems;
3. reading the text carefully and making use of other learning materials whenever necessary;
4. seeking assistance from the instructor and the Math Lab personnel whenever necessary;
5. completing assignments by the designated date;
6. regular class attendance, participation and maintaining accurate class notes.

LEARNING RESOURCES

Required Text: Algebra for College Students, 9th edition, by Lial, Hornsby, & McGinnis

Calculators: Desmos Scientific and Graphing Calculators

Online Instructor Tutoring: Zoom meeting TBA

TRiO: Hale Kāko‘o 116

The Math Lab: La‘akea 220 <https://windward.hawaii.edu/services-for-students/tutoring/ka-piko/>

UH Manoa Online Learning Academy: manoa.hawaii.edu/ola/

Tutor.com: 24/7 online tutoring that connects students one-to-one with a subject expert tutor

DISABILITIES ACCOMMODATIONS

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 Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, royinouy@hawaii.edu, or you may stop by Hale Kāko‘o 106 for more information.

STUDENT BASIC NEEDS

Basic needs include food and housing, childcare, mental health, financial resources and transportation, among others. 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 are experiencing basic needs insecurity, please see the following resources: [UH System Basic Needs](#).

SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

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)

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

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

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/

ACADEMIC INTEGRITY

Work submitted by a student must be the student's own work.

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.

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

MATH 103 TENTATIVE FALL SCHEDULE

The following schedule is subject to change. Should changes occur, you will be notified via email.

**** Please note the final exam for this course is Dec 16th**

UNIT 1

Week 1 to 4 (Aug 26 - Sept 16)

- R.2 - Algebra Fundamentals
- R.4 - Exponents, Roots and Order of Operations
- 1.1 - Linear Equations
- 1.5 - Linear Inequalities
- 1.6 - Set Operations and Compound Inequalities
- 1.7 - Absolute Value Equations and Inequalities

- 2.1 - Linear Equations in Two Variables
- 2.2 - The Slope of a Line
- 2.3 - Writing Equations of Lines
- 2.4 - Linear Inequalities in Two Variables
- 2.5 - Introduction to Relations and Functions
- 2.6 - Function Notation and Linear Equations

- 3.1 - Systems of Linear Equations (2 variables)
- 3.2 - Systems of Linear Equations (3 variables)
- 3.3 - Applications of Systems of Linear Equations

Exam 1 Review

- **Exam 1 (Chapters 1, 2 and 3)**

UNIT 2

Week 5 to 8 (Sept 23 - Oct 14)

- 4.1 - Integer Exponents
- 4.2 - Scientific Notation
- 4.3 - Adding and Subtracting Polynomials
- 4.4 - Polynomial Functions, Graphs and Composition
- 4.5 - Multiplying Polynomials
- 4.6 - Dividing Polynomials

- 5.1 - Greatest Common Factors and Factoring by Grouping
- 5.2 - Factoring Trinomials
- 5.3 - Special Factoring
- 5.5 - Solving Quadratic Equations Using the Zero-Product Property

- 6.1 - Rational Expressions
- 6.2 - Adding and Subtracting Rational Expressions
- 6.3 - Complex Fractions
- 6.4 - Solving Rational Equations and Graphs
- 6.5 - Applications of Rational Expressions
- 6.6 – Variation

- Exam 2 Review

- **Exam 2 (Chapters 4, 5, and 6)**

UNIT 3

Week 9 to 12 (Oct 16 - Nov 6)

- 7.1 - Radical Expressions and Graphs
- 7.2 - Rational Exponents
- 7.3 - Simplifying Radicals, the Distance Formula, and Circles
- 7.4 - Adding and Subtracting Radical Expressions
- 7.5 - Multiplying and Dividing Radical Expressions
- 7.6 - Solving Equations with Radicals
- 7.7 - Complex Numbers

- 8.1 - Solving Quadratic Equations using Square Root Property and Completing the Square
- 8.2 - Quadratic Formula
- 8.3 - Equations that lead to quadratic Methods
- 8.4 - Formulas and Further Applications
- 8.5 - Polynomial and Rational Inequalities

- Exam 3 Review
- **Exam 3 (Chapters 7 and 8)**

UNIT 4

Week 13 to 16 (Nov 15 - Dec 9)

- 9.1 - Review of Function Operations and Composition
- 9.3 - More About Parabolas and their Applications
- 10.2 - Exponential Functions
- 10.3 - Logarithmic Functions
- 10.4 - Properties of Logarithms
- 10.5 - Common and Natural Logarithms
- 10.6 - Exponential and Logarithmic Equations; Further Applications

- 11.4 - Graphs and Applications of Rational Functions
- 12.1 - Circles Revisited
- 12.3 - Nonlinear Systems of Equations
- 12.4 - Second Degree Inequalities and Systems of Inequalities

Final Exam Dec 16th (All HW assignments must be completed)