



UNIVERSITY of HAWAII\*  
**WINDWARD**  
COMMUNITY COLLEGE

### **Math 78/100 Survey of Mathematics**

4 Credits (CRN 60371/60372)

MWF 8:30 AM – 9:45 AM

**INSTRUCTOR:** Kevin A. Takayama, Instructor  
**OFFICE:** Hale Mana'opono 105  
**OFFICE HOURS:** M-Th 11:15 AM – 12:15 PM or by appointment  
**TELEPHONE:** 236-9283 **EMAIL:** ktakayam@hawaii.edu  
**EFFECTIVE DATE:** Spring 2019

### **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**

#### **Math 78: College Math Companion (1 credit)**

This course provides students concurrently enrolled in MATH 100, MATH 101, MATH 111, or MATH 115 with Just-In-Time support with special emphasis on pattern recognition and problem solving. Course topics are tailored to the concurrent course and may include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas. (One Lecture Hour)

Pre-Requisite(s): Satisfactory Placement Score

#### **Math 100: Survey of Mathematics (3 credits)**

An introduction to quantitative and logical reasoning for the nonscience/nonmathematics major. The question, "What is mathematics?" is explored, while focusing on mathematical systems or models, cultivating an appreciation for mathematics as an aesthetic art, and developing skills in problemsolving and analysis. (3 hours lecture)

Pre-Requisite(s): C or better in MATH 25, 26, 28, 29, 75X or higher or equivalent, co-requisite enrollment in Math 78, satisfactory math placement test score, or consent of instructor.

#### **Activities Required at Scheduled Times Other Than Class Times**

MyMathLab is an online learning resource. Every night you will be assigned online assignments through MyMathLab. 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:

Math 78: College Math Companion

1. Demonstrate college-level mathematical reasoning skills

Math 100: Survey of Mathematics

2. Utilize basic properties and/or operations related to the topics covered in the course
3. Utilize basic properties and/or operations related to the topics covered in the course
4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form

## FOUNDATION HALLMARKS

Math 100 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 UH Manoa. To satisfy the Quantitative Reasoning requirement, a 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-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.

## COURSE CONTENT

### *Concepts or Topics*

- **Algebra: Graphs and Functions**
- **Personal Finance**
- **Logic**
- **Counting Methods**
- **Probability**
- **Statistics**

### *Skills or Competencies/Responsibilities of Students. Success in this course will be enhanced by:*

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.

## COURSE TASKS

The mode of instruction is primarily discussion-problem solving where the initial portion of each class period may be utilized to discuss and clarify any questions from the preceding class meeting and/or assignment, and the remaining portion is used to discuss new material. Lectures, directed student explorations, group work, appropriate technologies, and projects will also be used as appropriate. 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 participating in and completing all class activities, by completing and turning in all assignments as requested, by taking unit tests, and by taking a final exam over concepts and skill covered in the entire course. Class activities, weekly quizzes, unit tests, and the final exam are to be taken in the classroom and without any references unless otherwise stipulated by the instructor.

It is the student's responsibility to obtain and complete all assignments that are given in any class meeting for which the student is unable to attend. Unless permission is granted by the instructor beforehand, assignments and tests must be completed and submitted to the instructor at the specified date and time.

Points will be assigned to each graded assignment, class activity, weekly quiz, and tests as follows:  
**MyMathLab.** MML Homework sets will be graded on a 0 - 10 point scale. Assignments must be completed by the designated date.

**Weekly Quizzes.** Weekly quizzes will be graded on a 0 - 5 point scale and will take place at the last meeting of every week. There is no make-up for a missed weekly quiz. Students must be present in class to participate.

**Unit Exams.** There are three unit exams and one unit mini exam given in class. A unit exam will be approximately 75 minutes in length and will be scored on a 100 point scale, and the mini exam will be scored on a 50 point scale. There are no retests.

**Final Exam.** The final exam will cover the concepts and skills in the entire course. The final exam is 2 hours in length and will be scored on a 200 point scale. There is no retest. There is no make-up.

**Course grade.** Each 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	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
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	

#### Percentage Breakdown

MyMathLab	40%
Quizzes	10%
Unit Exams	30%
Final Exam	20%
Total:	100%

## LEARNING RESOURCES

**Required Text:** Thinking Mathematically, 6th edition, by Pearson.

**Required Material:** Scientific calculator. Graphing calculators are not permitted.

**Required MyMathLab Access:** Included with the required text is an access code for MyMathLab. If you purchase the textbook secondhand, or through a retail outlet other than the WCC bookstore, you may also need to purchase an access code for MyMathLab. Our course ID for this semester: **takayama37885**

TRiO: Hale Kāko‘o 116

The Math Lab: La‘akea 220

UH Manoa Online Learning Academy: [manoa.hawaii.edu/ola/](http://manoa.hawaii.edu/ola/)

Math Tutorial Videos: <https://windward.hawaii.edu/jitmath/index.php>

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

## ADDITIONAL INFORMATION

1. **Grading on Homework, Class Activities, Weekly Quizzes, or Tests/Exams.** To receive full marks for problems done on any graded activity, you must show your work neatly and completely as well as provide clear written explanations when it is asked. Partial credit may be awarded.

2. **Laulima.** The syllabus, course calendar, homework schedule, grades, etc. are all viewable through Laulima. Check Laulima regularly to stay up to date.

3. **Absences.** It is your responsibility to attend class. Even if you are absent, you are responsible for those topics and examples covered in the class that you missed. Furthermore, you are responsible for obtaining any important announcements and assignments given during the class that you missed. If you are absent frequently or for an extended period of time, contact the instructor as soon as possible to discuss your situation. Absences and tardiness to class can have a negative impact on your success in this course. You are allowed 3 absences without consequence. **If you are absent 4 times, your overall grade will drop by 10%, one letter grade.** You will be deducted 10% of your overall grade for every 4 absences thereafter. You are considered tardy if you come to class between 5-20 minutes after class has started. **Two tardy attendances are worth 1 absence.**

4. **Communication.** It is your responsibility to stay in communication with the instructor. If you will be unable to make it to class for any reason, please inform your instructor so it may be determined if the absence is excused. The instructor may need to contact you throughout the semester and will do so via email. It is your responsibility to check your student email on a regular basis.

5. **MySuccess.** At Windward community college we want every student to be successful. MySuccess is a system wide effort that seeks to support students early in the semester when they first begin experiencing difficulty in class. If I feel that you're having difficulty in my class within the first few weeks of the semester (e.g. missing class, missing assignments, or low test scores) and working together to address your challenges shows that you would really benefit from being connected to resources outside of the classroom, I may refer you to your assigned counselor. Once referred, MySuccess will:

- Call you and send an email to your Hawaii.edu account to let you know about my referral; and
- have the MySuccess team follow up with you by phone or email to find out what kinds of help you might need and connect you with the necessary resources to help you devise a strategy for success.

I will not refer you without telling you. However, if I do refer you, know that I am doing so in an effort to connect you with all of the help you may need to do well this semester as your success is important to me.

## **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 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](mailto:lemke@hawaii.edu), or you may stop by Hale 'Ākoakoa 213 for more information.

## **TITLE IX**

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual

exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: [https://windward.hawaii.edu/Title\\_IX/](https://windward.hawaii.edu/Title_IX/).

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, WCC has resources to support you. To speak with someone confidentially, contact the Mental Health & Wellness Office at 808-235- 7393 or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator, Karla K. Silva-Park, at 808-235-7468 or karlas@hawaii.edu.

## **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: Alakai 121

Phone: 808-235-7422

Email: [wccaa@hawaii.edu](mailto:wccaa@hawaii.edu)

**Tentative** Calendar  
Spring 2019

Monday	Tuesday	Wednesday	Thursday	Friday
7 <b>January</b> Introduction	8	9 7.1	10	11 7.2
14 7.6	15	16 7.6 cont	17	18 8.5
21 <b>MLK Jr Day</b>	22	23 8.6	24	25 8.7
28 8.8	29	30 Exam I Review	31	1 <b>February</b> <b>No Class</b>
4 <b>Exam I</b>	5	6 3.1	7	8 3.2
11 3.3	12	13 3.4	14	15 3.5
18 <b>Presidents' Day</b>	19	20 3.4, 3.5 cont	21	22 3.6
25 3.7	26	27 3.8	28	1 <b>March</b> <b>No Class</b>
4 Exam II Review	5	6 <b>Exam II</b>	7	8 11.1
11 11.2	12	13 11.3	14	15 11.4
18 <b>Spring Break</b>	19 <b>Spring Break</b>	20 <b>Spring Break</b>	21 <b>Spring Break</b>	22 <b>Spring Break</b>
25 11.5	26 <b>Prince Kuhio Day</b>	27 11.6	28	29 11.7

1 April 11.6, 11.7 cont	2	3 11.8	4	5 Exam III Review
8 <b>Exam III</b>	9	10 12.1	11	12 12.2
15 12.3	16	17 12.4	18	19 <b>Good Friday</b>
22 12.5	23	24 Exam IV Review	25	26 <b>Mini Exam IV</b>
29 Final Exam Review	30	1 May Final Exam Review	2	3
6	7	8 <b>Final Exam</b> 8:30AM-10:30AM	9	10