



# Math 100

## Survey of Mathematics

Spring 2021, CRN 61117

### CLASS INFORMATION

Online, asynchronous  
3 credits  
[Course Site](#)

### INSTRUCTOR INFORMATION

Instructor: Amanda Zerr  
Virtual Office: <https://hawaii.zoom.us/j/9528242751>  
Office Hours: M - F (email me for an appointment)  
E-mail: [azerr@hawaii.edu](mailto:azerr@hawaii.edu)

### ABOUT THE INSTRUCTOR

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Welcome! My name is Amanda Zerr (Master's of Arts in Teaching Mathematics). I am passionate about math and teaching. I also love the outdoors, reading, cooking and spending time with family and friends.

I have over 10 years of experience teaching college and high school students in Oregon, California and Hawaii. I have also held a variety of other jobs such as math specialist, corporate trainer, outdoor science teacher, and high-ropes course guide. What I know for sure is that if you are open to learning & willing to practice and use good strategies, you can succeed in math.

### ABOUT THIS COURSE

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Pre-Requisites: Grade of "C" or better in MATH 25, 26, 28, 29, 75X or equivalent, satisfactory math placement test score, or consent of instructor. Corequisites: Enrollment in MATH 78, satisfactory math placement test score, or consent of instructor.

### STUDENT LEARNING OUTCOMES (SLO)

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

1. Utilize basic properties and/or operations related to the topics covered in the course.
2. Employ symbolic/mathematical techniques to solve applied problems.
3. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

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

## FOUNDATION HALLMARKS

Math 100 fulfills 3 credits of the General Education requirements (Foundations: Quantitative) for both an A.A. degree at WCC and a Bachelor's degree at UH Manoa. 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 effectively communicate those results in a variety of appropriate formats.

## COURSE FORMAT

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This online class is conducted fully online via an asynchronous format, i.e. there are no required time-specific meetings. Students will take responsibility for their own learning by:

- Reading the eBook, watching videos in MyMathLab and taking notes.
- Completing weekly online homework & quizzes using MyMathLab, analyzing errors, and asking specific questions to clarify misunderstandings.
- Completing three exams and the comprehensive final exam.

### Optional Class Meetings:

I will hold Zoom class meetings every Wednesday from 10-11:15 to review the concepts and answer questions. The same lesson will be repeated again on Thursdays at the same time. Attending one of these sessions each week is encouraged but not required.

## LEARNING MATERIALS

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### Required Materials

1. Students must have access to a computer, the Internet, Lualima and use their UH hawaii.edu e-mail account to participate in this class. Check your hawaii.edu email account regularly for course notifications.
2. You will be automatically enrolled in MyMathLab, which is our online learning program for homework, quizzes, and tests. The fee for the program will be billed to your UH account.
3. You will get free access to an online eBook version of our textbook (Thinking Mathematically, 7<sup>th</sup> ed. by Blitzer). If you prefer a hard-cover book, I recommend buying a used version.
4. A scientific calculator is required. Recommended: Desmos.com
5. Smartphone or camera to take pictures of your written work and an app (like CamScanner) so you can convert the image into a pdf in order to upload it to Lualima.

### Notebook

I recommend that you keep an organized notebook dedicated solely to this class for your video lecture & eBook notes as well as your online homework assignments, showing all of your work for each problem. This will help you prepare for your exams which require that you submit written work.

### Time

If you want to succeed in this class, you will need to dedicate around 6 hours per week to studying and completing work.

### The Learning Process: Growth Mindset

When learning new concepts, your brain is creating new synapse connections. Frustration and struggle are signs that you are in the middle of the learning process. Don't give up! Good strategies and continued practice lead to stronger synapse connections and allow your brain to store the new concepts in long-term memory. You build your intelligence as you practice and learn new concepts.

### Additional Learning Resources

- [Ka Piko Math Lab](#) - Free online drop-in tutoring with WCC students who have been successful in Math 140 and above.
- [TRiO Student Support Services](#) - Free individual and/or small group tutoring, financial assistance, computer lab & printing, early class registration, income tax services, free food, and much more!
- [Tutor.com](#) - Free online, on-demand tutoring. Sign in to myUH for free access to the program.
- [Testing Center](#) - La'akea Room 228. Phone number (808)235-7498

## COURSE POLICIES

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### Safe Space

At WCC, we strive to treat each other with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, races, sexual orientations, ability, and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class. Sometimes, while it might not be intentional, we can all make mistakes. If you feel disrespected in this class, please email me, write an anonymous comment in the course evaluation at the end of the term, and/or contact the Dean of Students.

### Community Support

To succeed in an online class, it is important to form a community with peers and the instructor. You are encouraged to interact with classmates using the Remind app. This is a safe, non-judgmental place to ask specific questions about homework, Lualima, due dates, etc. The *OMG Help!* forum on Lualima is the place I put answers to questions I've received via email so that everyone benefits from each other's questions. You can read the questions and answers, post new questions, or add your own player hacks you've figured out or gotten help with from a me or tutor.

### Contacting the Instructor

There are three easy ways to contact me.

- Email me via your UH school email
- Text me using the Remind app (send a text to 81010 with the message "@zerr100")
- Post your question to the *OMG Help!* forum on Lualima

I will be available Monday - Friday and will reply to any questions and posts within 24 hours during the week and within 48 hours on weekends and holidays. When contacting me with questions or concerns, please include your full name & MATH 100 in the title of the message. If you are asking about a specific homework problem, include the section, question number and a picture of the work you've attempted on the problem.

### Alternative Contact

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. Email: [wccaa@hawaii.edu](mailto:wccaa@hawaii.edu) Phone: 808-235-7422

## ASSESSMENT TASKS

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The student will demonstrate competency in the objectives by completing assignments, taking quizzes, tests, and a comprehensive final exam. Math 100 fulfills 3 credits of the General Education requirements of Foundations Quantitative (FQ). This means that students' written work on exams must clearly and logically explain the mathematical concepts being addressed. Messy, incomplete and/or disorganized work will not receive full credit.

### Homework

- Homework will be completed online via the MyMathLab program. Most successful students need to do additional problems and study their lecture notes and quizzes in order to succeed.
- You can retry MyMathLab problems an unlimited number of times until you get them correct. Power-ups (late homework) - a 25% late penalty will apply to homework turned in after the due date.

### Quizzes

There will be frequent timed quizzes for approximately 10 points each. You will have 3 attempts on each problem on the quizzes and your highest score will be kept. The two lowest quizzes scores will be dropped.

### Tests

- You are required to show complete and orderly work for your tests and submit it to Laulima. A pdf of written work must be submitted to Laulima immediately after completing the online test. If you miss the 11:55 pm deadline, email me your written work for partial credit (20% deduction for late written work). Tests without written work are worth only 50% of your MyMathLab score.
- The timed exams will be available to students online for approximately 4 days. There are no retests on exams. Questions on tests and quizzes are randomized so no students have the same problems.

### Final Exam

The final exam is a 2 hour test covering concepts and skills in the entire course. There are no retakes or make-ups for the final exam. The purpose of the final exam is to synthesize your understanding of the learning objectives so that you can succeed in future classes and career goals. Submit written work to Laulima's assignments. The Final Exam score can replace one Unit Exam score, if it is higher.

### Bonus Points

There will be a few opportunities to earn extra credit in this class such as SOL Module 1.

## Experience Points (Grades)

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Grades are posted on the Laulima XP tab and are based on the following weighted categories:

|     |                                                    |
|-----|----------------------------------------------------|
| 70% | Exams: 3 Unit Tests & Final Exam (100 points each) |
| 25% | Homework (32 assignments, 10 points each)          |
| 5%  | Quizzes (8 quizzes, 10 points each)                |

You will receive a letter grade based on the following scale.

|   |                                          |
|---|------------------------------------------|
| A | 90%-100%                                 |
| B | 80%-89%                                  |
| C | 70%-79%                                  |
| D | 60%-69%                                  |
| F | Less than 60%                            |
| W | Official Withdrawal (by posted deadline) |

*Grades are rounded up so that 89.5% = A, whereas 89.4% = B.*

## INSTITUTIONAL INFORMATION

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### WCC 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.

### 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. Roy Inouye can be reached at 235-7453, [royinouy@hawaii.edu](mailto:royinouy@hawaii.edu), or you may stop by Hale Kako'o 106 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.

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](mailto: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](mailto:karlas@hawaii.edu).

### Student Conduct & Academic Honesty

Students are required to comply with the UH Student Conduct Code including policies that prohibit Academic Dishonesty. Do not cheat yourself of an opportunity to learn. Doing the work yourself gives you a chance to master new material and further your education. See the [WCC Student Conduct Policy](#) for more information.

### Course Catalog

Use the [WCC Catalog](#) to find information on student resources, rights & responsibilities, WCC grading policies, tuition & fees, and other college policies.

## TENTATIVE COURSE 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 Tuesday, May 11th \*\***

### Unit 1 - Algebra & Personal Finance

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#### Week 1 (Jan 11 - 17)

- Optional: SOL Module 1 (Extra Credit)
- Say Hello! on Lualima
- Read the syllabus
- Watch Desmos Calculator Tutorial & Growth Mindset videos
- Complete "Student Information Sheet"

#### Week 2 (Jan 18 - 24)

- MyMath Lab Tutorial, 7.1, 7.2 - Graphing & Functions
- Quiz 1 (Sections 7.1, 7.2, 8.5)

#### Week 3 (Jan 25 - 31)

- 7.6 - Modeling Data
- 8.5 - Saving & Investing
- Quiz 2 (Section 7.6)

#### Week 4 (Feb 1 - 7)

- 8.6, 8.7, 8.8 - Credit Cards, Buying a Car and Home
- Quiz 3 (Sections 8.6 - 8.8)

#### Week 5 (Feb 8 - 14)

- Unit 1 Review
- Test 1

### Unit 2 - Logic

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#### Week 6 (Feb 15 - 21)

- 3.1, 3.2, 3.3 - Introduction to Logic

#### Week 7 (Feb 22 - 28)

- 3.4, 3.5, 3.6 - Logic cont'd.
- Quiz 4 (Sections 3.1 - 3.4)

#### Week 8 (March 1 - 7)

- 3.7, 3.8 - Arguments & Euler Diagrams
- Quiz 5 (Sections 3.5 - 3.8)

#### Week 9 (March 8 - 14)

- Unit 2 Review
- Test 2

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March 15 - 21 - Spring Break NO SCHOOL

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## Unit 3 - Probability & Statistics

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### Week 10 (March 22 - 28)

- 11.1, 11.2, 11.3 - Counting, Permutations & Combinations

### Week 11 (March 29 - April 4)

- 11.4, 11.5 - Fundamentals of Probability
- Quiz 6 (Sections 11.1 - 11.5)

### Week 12 (April 5 - 11)

- 11.6, 11.7 - Probability Events
- Quiz 7 (Sections 11.6 - 11.7)

### Week 13 (April 12 - 18)

- 12.1, 12.2, 12.3 - Frequency, Measures of Central Tendency & Dispersion

### Week 14 (April 19 - 25)

- 12.4, 12.5 - The Normal Distribution
- Quiz 8 (Sections 12.1 - 12.5)

### Week 15 (April 26 - May 2)

- Unit 3 Review
- Test 3

### Week 16 (May 3 - 9)

- Final Exam Review

## Due Tuesday, May 11 - Cumulative Final Exam

### Important Dates

Monday, Jan 11 - First day of instruction, Add/Drop fees begin.

Tuesday, Jan 19 – Nonparticipating students will be dropped from classes.

    Last day to register. Last day to drop & receive 100% refund.

Wednesday, Feb 3 – Last day to drop & receive 50% refund (No “W” on transcript).

Monday, March 29 – Last day to withdraw from class (with a “W” on transcript).

### Holidays

Monday, Jan 18 - Holiday: Dr. MLK Jr. Day

Monday, Feb 15 - Holiday: Presidents Day

Friday, March 5 - Non Instructional Day

March 15 - 19 - Spring Break

Friday, March 26 - Holiday: Prince Kuhio Day

Friday, April 2 - Holiday: Good Friday