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.

Catalog Description

This course prepares students for MATH 100, MATH 101, MATH 111, and MATH 115. Course topics include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas with special emphasis on pattern recognition and problem solving. Additional topics may include set theory, inequalities, and quadratics. (4 hours lecture).

Activities Required at Scheduled Times Other Than Class Times

Homework; consultation with instructor.

STUDENT LEARNING OUTCOMES

Upon completion of the course, the student will be able to:

1. Solve applied mathematical problems, judge reasonableness of results, and communicate conclusions using appropriate terminology and symbols

2. Recognize and express mathematical patterns in various forms and contexts

3. Perform operations on real numbers

4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.
Note: All SLOs assessments are embedded in class activities, homework, quizzes, or Exams.

### COURSE CONTENT

**Concepts or Topics (What students should know or understand)**

- Number Sense
- Variable Sense
- Function Sense and Linear Functions
- An Introduction to Nonlinear Problem Solving

**Skills or Competencies (What students should be able to do in order to complete the student learning outcomes)**

1. a positive, inquiring attitude towards learning 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 through class activities, in addition to 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 homework, 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.

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 chapter tests, and by taking a final exam over concepts and skills covered in the entire course. Class activities, chapter 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 homework assignment, class activity, and test as follows:

1. **Participation (Class Activity).** As the primary mode of instruction for this course is class activities, class participation will be required throughout the semester. There will be no make-up for missed class activities.

2. **Homework.** There will be weekly homework assignments. All homework is to be turned in at the designated date. Late homework may be accepted with grade penalty.
3. **Quiz.** There will be weekly quizzes. Each quiz will take place in the beginning of the first meeting of the week (except Week 1), unless otherwise indicated by the instructor. There will be no make-up for missed quizzes. Two quizzes with the lowest scores will be dropped.

4. **Chapter tests.** Four chapter tests are given in class at the end of each chapter. A chapter test will be 75 minutes in length. **The student must achieve a minimum of 70% of the possible points for each chapter test.** Without this minimum requirement, a passing grade for the course is not possible.

**Practice Tests.** At least a day before each chapter test you will be assigned a practice test as preparation. This practice test must be fully completed on the day of the chapter test in order to take the test.

**Retests.** One Chapter Retest is allowed without penalty for each chapter test if it is done by the specified Chapter Retest deadline. The better of the two test scores will count towards your grade. No Chapter Retest will be given after the Chapter Retest deadline. Chapter Retests are arranged by appointment with your instructor.

To take a chapter retest, all of the following must be met:

a) All problems from the chapter gateway review in the book must be completed and turned in to the instructor.
b) The student must meet with the instructor to review mistakes made on the first form of the test taken when he or she scores below 70%.
c) Additional math activities as designated by the instructor must be completed.
d) Chapter Retest must be taken by the designated Chapter Retest deadline.

5. **Final Exam.** The final exam will cover the concepts and skills in the entire course. The final exam is two hours in length. **The student must achieve a minimum of 60% of the possible points for the final exam.** Without this minimum requirement, a passing grade for the course is not possible.

**Retest.** Final Exam Retest is available if the 60% minimum is not met and the 70% minimum per chapter test was met. In that event, Final Exam Retest is possible, however, the maximum score of Final Exam Retest is 60% of the possible points for the final exam.

**Make-up.** Make-up opportunity for a chapter test or final exam will be possible only upon a timely presentation of a serious and justified explanation of the student’s absence from the class test. The instructor has the right to request documentation of the student’s absence from the class and to determine if the absence from the class test is justified. A make-up test must be taken within one week of the in-class test unless otherwise specified by the instructor.

**Course grade.** If the student has achieved a minimum of 70% of the possible points for each chapter test and a minimum of 60% of the possible points for the final exam, then a letter grade for the course will be assigned according to the level of achievement as provided in the table below:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100% of the total possible points</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89% of the total possible points</td>
</tr>
</tbody>
</table>
C  70% - 79% of the total possible points
CR  70% - 100% of the total possible points
NC  Less than 70% of the total possible points
N  See definition listed below
D  60% - 69% of the total possible points
F  Less than 60% 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: The 'N' grade indicates that the student has worked conscientiously, attended regularly, finished all work, fulfilled course responsibilities, and has made measurable progress. However, either the student has not achieved the minimal student learning objectives and is not yet prepared to succeed at the next level, or the student has made consistent progress in the class but is unable to complete the class due to extenuating circumstances, such as major health, personal or family emergencies.

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

**Percentage Distribution of Course Work.**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation (Class Activities)</td>
<td>10%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Chapter Tests</td>
<td>40% (10% each)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

**Learning Resources and Materials**

- Option 1: Buy the printed textbook from the bookstore with an Access Code included.
- Option 2: Buy access to MyMathLab directly online and get the e-book included.

MATH LAB: La’akea 220 – free drop-in tutorial assistance
Brainfuse Online Tutorial Assistance: [https://windward.hawaii.edu/brainfuse/](https://windward.hawaii.edu/brainfuse/)
OLA (UH online tutoring program): [https://manoa.hawaii.edu/ola/](https://manoa.hawaii.edu/ola/)
Khan Academy Videos: [https://www.khanacademy.org/math](https://www.khanacademy.org/math)

**Additional Information**

1. **Grading on Homework, Class Activities, Quizzes, Chapter Tests, and Final Exam.** To receive full marks for problems done on any graded course work, you must show your work neatly and completely as well as provide clear written explanations, in full sentences, when it is asked for. Partial credit may be awarded.
2. **Absences.** It is your responsibility to attend every class meeting. Even if you are absent, you are responsible for those topics, activities, and examples covered in class that you missed. Furthermore, you are responsible for obtaining any important announcements and assignments given during the class 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.

3. **Practice.** For each chapter, as you read through each activity, it is recommended that you write down the words, phrase or math symbols and their meanings, formulas, and properties/rules that are important for each activity. It is important for you to know these.

After each activity has been done in class, try all selected problems (in blue) in EXERCISES at the end of the activity. The answers to these selected problems are available at the back of the textbook. Then do as many other problems in the same activity as you feel is necessary to help you learn and understand the material and become comfortable with the concepts and/or properties. If you have difficulty solving problems in the exercises, review carefully the discussions in the activity and your class notes. If, after checking these sources and trying to find your mistakes, you are still unable to solve a problem correctly, make a note of the exercise number so that you can ask someone for help with that problem. You are also encouraged to reach out to the instructor for additional assistance.

Mathematics is not a spectator sport. To succeed in mathematics, you must do problems. It is often necessary to practice a skill more than the instructor requires. For example, a textbook may provide 50 practice problems in a section and the instructor may assign only 25 of them. However, some students may need to do 30, 40, or all problems. If you are an accomplished athlete, musician, or dancer, you know that long hours of practice are necessary to acquire a skill. Do not cheat yourself of the practice you need to develop skills taught in this course.

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

5. **Calculators.** A scientific calculator is required for this class, including all class activities, homework, quizzes, chapter tests, and final exam. A graphing calculator is not allowed in this class. **No calculator is allowed for Chapter 1 Test.** A scientific calculator is allowed for all other tests in Math 75X. Cell phone calculators are not allowed on tests.

6. **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 UH email on a regular basis.

7. **Electronic Devices.** The usage of electronic devices, including two-way communications devices such as cell phones, is prohibited during class. (Cell phones must be silenced when entering the classroom.)

8. **MyMathLab (MML).** You are strongly recommended to utilize the online resources provided by Pearson (https://www.pearsonmylabandmastering.com/northamerica/). To register for a MML account, you must have an access code (accompanying the printed textbook or purchase solely) and a course ID. The course ID for this course is won67866.
9. **Academic dishonesty will not be tolerated.** All suspected cases will be investigated and reported to the Dean. Punishments will vary, but may include failure to the course. See [http://windward.hawaii.edu/Policies/](http://windward.hawaii.edu/Policies/) for more information on the UH system-wide student conduct code.

10. **Title IX.** Visit [https://windward.hawaii.edu/Title_IX/](https://windward.hawaii.edu/Title_IX/) to read more about Title IX.

### Tentative Schedule (Subject to Change)

<table>
<thead>
<tr>
<th>Dates</th>
<th>Class Activities</th>
</tr>
</thead>
</table>
| AUG 21, 23, 23 | Orientation, Syllabus  
|             | Activity 1.1 The Bookstore  
|             | Activity 1.2: The Handshake  
|             | Activity 1.3 Properties of Arithmetic |  
| AUG 28, 30 SEP 1 | Activity 1.4 Top Chef  
|             | Activity 1.5 Course Grades & Your GPA  
|             | Activity 1.6 Everything is Relative |  
| SEP 4, 6, 8 | *Labor Day—No Class (9/4)*  
|             | Activity 1.7 Devastation of AIDS in Africa  
|             | Activity 1.8 Who Really Did Better?  
|             | Activity 1.9 Going Shopping |  
| SEP 11, 13, 15 | Activity 1.10 Taking Additional 20% Off  
|             | Activity 1.11 Fuel Economy  
|             | Activity 1.12 Celsius Thermometers |  
| SEP 18, 20, 22 | Activity 1.13 Shedding Extra Pounds  
|             | Activity 1.14 Order of Operations Revisited  
|             | Chapter 1 Gateway Review |  
| SEP 25, 27, 29 | **CHAPTER TEST 1 (SEP 25, 1:00 P.M.—2:15 P.M.)**  
|             | Activity 2.1 Symbolizing Arithmetic  
|             | Activity 2.2 Blood Alcohol Levels  
|             | Activity 2.3 College Expenses |  
| OCT 2, 4, 6 | Activity 2.4 Are They the Same?  
|             | Activity 2.5 Let’s Go Shopping  
|             | Activity 2.6 Leasing a Copier |  
| OCT 9, 11, 13 | Activity 2.7 The Algebra of Weather  
|             | Activity 2.8 Four out of Five Dentists  
|             | Activity 2.9 Do It Two Ways |  
| OCT 16, 18, 20 | Activity 2.10 Decoding  
|             | Activity 2.11 Comparing Energy Costs  
|             | Chapter 2 Gateway Review |
### Important College Deadlines

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Registration/Fee begins, Fall</td>
<td>Aug 21, 2017</td>
</tr>
<tr>
<td>In-Person Add/Drop Fee Begins, Fall</td>
<td>Aug 21, 2017</td>
</tr>
<tr>
<td>Last Day to Add/Late Register, Fall</td>
<td>Aug 25, 2017</td>
</tr>
<tr>
<td>Last Day for 100% Refund, Fall</td>
<td>Aug 25, 2017</td>
</tr>
<tr>
<td>Last Day for 50% Refund, Fall</td>
<td>Sep 12, 2017</td>
</tr>
<tr>
<td>Last Day to Withdraw without a &quot;W&quot; Grade, Fall</td>
<td>Sep 12, 2017</td>
</tr>
<tr>
<td>Last Day to Withdraw with a &quot;W&quot; Grade, Fall</td>
<td>Oct 30, 2017</td>
</tr>
<tr>
<td>Last Day to Establish credit/no-credit and audit options, Fall</td>
<td>Oct 3, 2017</td>
</tr>
</tbody>
</table>

### Class Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity 1</th>
<th>Activity 2</th>
<th>Activity 3</th>
<th>Activity 4</th>
<th>Activity 5</th>
<th>Activity 6</th>
<th>Activity 7</th>
<th>Activity 8</th>
<th>Activity 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCT 23, 25, 27</td>
<td>CHAPTER TEST 2 (OCT 23, 1:00 P.M.~2:15 P.M.)</td>
<td>Activity 3.1 Gold, Silver, Bronze</td>
<td>Activity 3.2 How Fast Did You Lose?</td>
<td>Activity 3.3 Symbolically Defined Functions and their Graphs</td>
<td>Activity 4.1 Fatal Crashes</td>
<td>Activity 4.2 Volume of a Storage Box</td>
<td>Non-Instructional Day—No Class (11/24)</td>
<td>Activity 4.4 The Amazing Property of Gravity</td>
<td>Activity 4.7 More Ups and Downs</td>
</tr>
<tr>
<td>OCT 30 NOV 1, 3</td>
<td>Activity 3.4 Course Grade</td>
<td>Activity 3.5 The Snowy Tree Cricket</td>
<td>Activity 3.6 Software Sales</td>
<td>Activity 3.7 Predicting Population</td>
<td>Activity 5.1</td>
<td>Activity 5.2</td>
<td>Activity 5.3</td>
<td>Activity 5.4</td>
<td>Activity 5.5</td>
</tr>
<tr>
<td>NOV 6, 8, 10</td>
<td>Activity 3.8 College Tuition</td>
<td>Activity 3.9 Education Pays</td>
<td>Veterans’ Day—No Class (11/10)</td>
<td>Activity 6.1</td>
<td>Activity 6.2</td>
<td>Activity 6.3</td>
<td>Activity 6.4</td>
<td>Activity 6.5</td>
<td></td>
</tr>
<tr>
<td>NOV 13, 15, 17</td>
<td>Activity 3.11 Smartphone Plan Options</td>
<td>Activity 3.12 Healthy Lifestyle</td>
<td>Activity 3.14 How Long Can You Live?</td>
<td>Chapter 3 Gateway Review</td>
<td>Activity 7.1</td>
<td>Activity 7.2</td>
<td>Activity 7.3</td>
<td>Activity 7.4</td>
<td></td>
</tr>
<tr>
<td>NOV 20, 22, 24</td>
<td>CHARTER TEST 3 (NOV 20, 1:00 P.M.~2:15 P.M.)</td>
<td>Activity 4.1 Fatal Crashes</td>
<td>Activity 4.2 Volume of a Storage Box</td>
<td>Non-Instructional Day—No Class (11/24)</td>
<td>Activity 8.1</td>
<td>Activity 8.2</td>
<td>Activity 8.3</td>
<td>Activity 8.4</td>
<td></td>
</tr>
<tr>
<td>NOV 27, 29 DEC 1</td>
<td>Activity 4.4 The Amazing Property of Gravity</td>
<td>Activity 4.7 More Ups and Downs</td>
<td>Chapter 4 Gateway Review</td>
<td>Activity 9.1</td>
<td>Activity 9.2</td>
<td>Activity 9.3</td>
<td>Activity 9.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEC 4, 6</td>
<td>Review for Final Exam</td>
<td>Activity 9.4</td>
<td>Activity 9.5</td>
<td>Activity 9.6</td>
<td>Activity 9.7</td>
<td>Activity 9.8</td>
<td>Activity 9.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEC 11</td>
<td>FINAL EXAM (1:00 P.M.~3:00 P.M.)</td>
<td>Activity 9.4</td>
<td>Activity 9.5</td>
<td>Activity 9.6</td>
<td>Activity 9.7</td>
<td>Activity 9.8</td>
<td>Activity 9.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.