MATH 75X, INTRO TO MATH REASONING
4 Credits (CRN 64222)
MWF 11:30 am – 12:45 pm, Mana’opono Room 101

INSTRUCTOR: Matthew Radio
OFFICE: Mana’opono 110A
OFFICE HOURS (times students may drop in for help): Monday-Thursday 9:00 – 10:00am
TELEPHONE: (808) 236-9276 EMAIL: mradio@hawaii.edu
EFFECTIVE DATE: Fall/2018

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

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)

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

- Critical Thinking and Problem Solving Strategies
- Number Sense
- Operations on Real Numbers
- Proportional Reasoning
- Linear Equations in One and Two Variables
- Evaluating and Manipulating Formulas
- Graphical Representations
- Dimensional Analysis
- Geometry and Measurement

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 organized discussion through in-class activities and lectures. The initial portion of each class period may be used to clarify any questions from the preceding class meeting and/or assignment. It is strongly recommended that students read sections prior to each class meeting. There will be a chapter exam at the completion of each unit of instruction.

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 covering concepts and skills from the entire course.

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.

Course grades will be assigned using the following criteria:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyMathLab</td>
<td>10%</td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>In-class Activities</td>
<td>10%</td>
</tr>
<tr>
<td>4 Chapter Exams</td>
<td>13% Each</td>
</tr>
<tr>
<td>Final Exam</td>
<td>18%</td>
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</tbody>
</table>

1. **MyMathLab:** Assignments are to be completed on the designated date on MyMathLab. Please check your online account frequently. Late work will not be accepted.

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2. **Homework Exercises:** Assignments are to be turned in at the beginning of class on the designated date. Assignments will be announced in class and posted on Laulima. Late homework will not be accepted.

3. **In-Class Activities:** There is no make-up for a missed class activity. Students must be present in class to participate. Activities will occur on most class days.

4. **Chapter Tests:** A test will be given at the end of each chapter, Chapter 1 through 4. Each 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.

   **Retests.** After each unit exam, a chapter retest deadline will be given. Students can score a maximum of 70% on the retest. No retests will be given after the unit retest deadline. Retests are arranged by appointments with your instructor.

   To take a retest, all of the following must be met:
   a) All problems assigned from the instructor must be completed and shown to the instructor.
   b) The student must meet with the instructor to review mistakes made on the first form of the test taken.
   c) The retest must be taken by the designated unit retest deadline.

5. **Final Exam:** The final exam will cover the concepts and skills in the entire course. **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.

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

**Make-up.** If you are unable to attend class on an exam day, discuss your situation with the instructor as soon as possible before the exam day. It may be possible for you to take the exam earlier than the specified day/time. If you unexpectedly must be absent on an exam day, notify me by 3:00 pm via email. If the notification is received and the reason is justified, then a make-up exam will be scheduled. The instructor reserves the right to request documentation to determine whether the absence is justifiable. For each student, NO MORE THAN ONE make-up exam may be taken.
Course grade. If the student has achieved a minimum of 70% of the possible points for each unit exam 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>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100% of the total possible points</td>
</tr>
<tr>
<td>B</td>
<td>80% - &lt;90% of the total possible points</td>
</tr>
<tr>
<td>C</td>
<td>70% - &lt;80% of the total possible points</td>
</tr>
<tr>
<td>Cr*</td>
<td>70% - 100% of the total possible points</td>
</tr>
<tr>
<td>NC*</td>
<td>&lt;70% of the total possible points</td>
</tr>
<tr>
<td>D</td>
<td>60% - &lt;70% of the total possible points</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60% of the total possible points</td>
</tr>
</tbody>
</table>

* Students must apply for the Cr/NC grading option at the Admissions Office.

LEARNING RESOURCES

Required materials:

- Option 1: Buy the new printed textbook from the bookstore with an Access Code for MyMathLab included.

- Option 2: Buy access to MyMathlab directly online and get the e-book included. Go to www.mymathlab.com and use the instructor course ID below.

- A scientific calculator. Graphing calculators are NOT allowed.

MyMathLab Access: radio45088

Supplemental Learning Resources:
- Brainfuse: http://windward.hawaii.edu/Brainfuse/
- OLA (UH online tutoring program): http://manoa.hawaii.edu/ola/
- Wolfram Alpha: http://www.wolframalpha.com
- Khan Academy Videos: http://www.khanacademy.org

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ADDITIONAL INFORMATION

- I am available to help during office hours. Stop by just to chat about the class or to clear up difficult concepts.
- Daily Homework: Students should come to each class prepared. Read the chapters ahead of time.
- It is your responsibility to attend class. If you are absent, you are responsible for any important announcements or assignments given during the class you missed. Check your UH email, the Laulima class website, and MyMathLab for announcements regularly.
- Please respect your fellow students and act accordingly. Cell phones must be silenced when entering the classroom.

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, 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/.

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, Windward CC has resources to support you. To speak with someone confidentially, contact Karla Silva-Park, Mental Health Counselor, at 808-235-7468 or karlas@hawaii.edu 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 at 808-235-7393 or wcctix@hawaii.edu.

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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 use of quotes or summarizing with reference to the original author.

Students can upload papers to http://www.TurnItIn.com to have papers checked for authenticity, highlighting where the paper potentially fails to appropriately reference sources.

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.
- Students may receive an automatic F for the course.

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
<table>
<thead>
<tr>
<th>Week of</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 20</td>
<td>Intro Chapter 1, Cluster 1</td>
<td>Chapter 1, Cluster 1 Properties of Arithmetic</td>
<td>Chapter 1, Cluster 2 Problem Solving with Fractions and Decimals</td>
</tr>
<tr>
<td>August 27</td>
<td>Chapter 1, Cluster 3A Ratio and Relative Change</td>
<td>Chapter 1, Cluster 3B Percentages</td>
<td>Chapter 1, Cluster 3C Dimensional Analysis</td>
</tr>
<tr>
<td>September 3</td>
<td>No Class (Labor Day)</td>
<td>Chapter 1, Cluster 4 Problem Solving with Signed Numbers</td>
<td>Chapter 1 Review</td>
</tr>
<tr>
<td>September 10</td>
<td>Chapter 1 Exam</td>
<td>Exam 1 Review</td>
<td>Chapter 2, Cluster 1 Symbolic Rules and Expressions</td>
</tr>
<tr>
<td>September 17</td>
<td>Activities 2.5 and 2.6 Linear Equations</td>
<td>Activity 2.7 Literal Formula</td>
<td>Activity 2.8 Proportions</td>
</tr>
<tr>
<td>September 24</td>
<td>Activity 2.9 Problem Solving</td>
<td>Activity 2.10 Decoding</td>
<td>Activity 2.11 Using Mathematical Models</td>
</tr>
<tr>
<td>October 1</td>
<td>Chapter 2 Review</td>
<td>Chapter 2 Exam</td>
<td>Exam 2 Review</td>
</tr>
<tr>
<td>October 8</td>
<td>Chapter 3, Cluster 1 Function Sense</td>
<td>Activities 3.5 Linear Functions</td>
<td>Activity 3.6 Forms of Linear Functions</td>
</tr>
<tr>
<td>October 15</td>
<td>Activities 3.7 and 3.8 Linear Applications</td>
<td>Activity 3.9 Linear Patterns</td>
<td>Activity 3.11 Linear Systems</td>
</tr>
<tr>
<td>October 22</td>
<td>Activity 3.12 Substitution</td>
<td>Activity 3.12 Elimination</td>
<td>Activity 3.14 Inequalities</td>
</tr>
<tr>
<td>October 29</td>
<td>Chapter 3 Review</td>
<td>Chapter 3 Exam</td>
<td>Exam 3 Review</td>
</tr>
<tr>
<td>November 5</td>
<td>Activity 4.1 Polynomials</td>
<td>Activity 4.2 Working with Exponents</td>
<td>Activity 4.3 FOIL</td>
</tr>
<tr>
<td>November 12</td>
<td>No Class (Veterans Day)</td>
<td>Activity 4.4 Solving Quadratic Equations</td>
<td>Activity 4.7 Graphing a Parabola</td>
</tr>
<tr>
<td>November 19</td>
<td>Activity 4.8 Inflation</td>
<td>Activity 4.10 Variation</td>
<td>No Class (Thanksgiving)</td>
</tr>
<tr>
<td>November 26</td>
<td>Chapter 4 Review</td>
<td>Chapter 4 Exam</td>
<td>Exam 4 Review</td>
</tr>
<tr>
<td>December 3</td>
<td>Review for Final</td>
<td>Review for Final</td>
<td>No Class (Study Day)</td>
</tr>
<tr>
<td>December 10</td>
<td></td>
<td>FINAL EXAM 12/12/18 11:30am – 1:30pm</td>
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- September 11, 2018: Last Day to Withdraw without a "W" Grade
- October 29, 2018: Last Day to Withdraw with a "W" Grade
- October 29, 2018: Last Day to Establish credit/no-credit and audit options