MATH 103  COLLEGE ALGEBRA (4 cr)
CRN 63243
Time: MWF 10:00am – 11:15am
Location: Mana’opono 101

INSTRUCTOR: Matthew Radio
OFFICE: Mana’opono 110A
OFFICE HOURS: MW 11:30 – 12:30, TR 10:30 – 11:30
TELEPHONE: (808) 236-9276
EMAIL: mradio@hawaii.edu

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.

Math 103 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.

PREREQUISITES: Grade of “C” or better in MATH 25, 26, 29, or MATH 82 or equivalent, or satisfactory placement test score, or consent of instructor.

Learning Resources and Required Materials

Textbook:

- College Algebra Essentials by Julie Miller with an Access Code for Connect Math
  - Option 1: Buy the printed textbook from the bookstore with an Access Code included.
  - Option 2: Buy access to Connect Math directly online and get the e-book included.

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
STUDENT LEARNING OUTCOMES

Students will be able to:

1. Demonstrate proficiency in writing math expressions into different forms.
2. Employ algebraic techniques to find the solutions to equations and/or inequalities, using complex numbers where appropriate.
3. Use algebraic techniques to analyze and solve applied problems.
4. Interpret equations geometrically and use geometrical information to obtain the equation of lines and circles.
5. Utilize introductory function concepts and draw the graphs of selected functions.
6. Utilize the definition of a logarithm and the properties of logarithms to simplify logarithmic expressions or to solve logarithmic and exponential equations.
7. Demonstrate proficiency in solving systems of linear and second degree equations and inequalities.
8. Utilize precise mathematical language and symbols to effectively communicate Mathematics in written and/or oral form.

FOUNDATIONS HALLMARKS

Math 103 fulfills 3 credits of the General Education requirements (Foundations: Symbolic) for both an A.A. degree at WCC and at other colleges in the UH system. Consequently, it meets the following hallmarks of the symbolic reasoning requirement:

1. Students will be exposed to the beauty, power, clarity and precision of formal systems.
2. Instructors will help students understand the concept of proof as a chain of inferences.
3. Instructors will teach students how to apply formal rules or algorithms.
4. Students will be required to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.
5. The course will not focus solely on computational skills.
6. Instructors will build a bridge from theory to practice and show students how to traverse this bridge.
Course Assessments and Grading

1. HOMEWORK – Homework will be assigned regularly online via Connect Math. Although announcements will be made during class, it is your responsibility to check Connect Math for homework assignments. The two lowest homework scores will be dropped. Homework submitted late will receive a score of 0.

2. QUIZZES – A short quiz will be given once per week. Students must be present in class to take a quiz. Quizzes will be announced at least one class in advance. The two lowest quiz scores will be dropped.

3. MIDTERM EXAMS – There will be four midterm exams each covering specific chapters of the textbook (i.e., these exams will not be cumulative). Exam dates and coverage will be announced at least one week in advance.

4. FINAL EXAM – There will be one cumulative exam at the end of the course.

Notes:

- CALCULATORS ARE NOT ALLOWED for quizzes or exams.
- If you are unable to attend class on an exam day, discuss your situation with me 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 12:00 pm via voicemail or email. If the reason is justified then a make-up exam will be scheduled.
- For each student, no more than one make-up exam may be taken.
- There are no re-tests in this course.

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<tbody>
<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Midterm Exams</td>
<td>15% each</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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Letter grades for the course are earned as follows:

- **A**: 90% - 100% of the cumulative points possible
- **B**: 80% - 89% of the cumulative points possible
- **C**: 70% - 79% of the cumulative points possible
- **D**: 60% - 69% of the cumulative points possible
- **F**: Less than 60% of the cumulative points possible
- **CR**: 70% or above of the cumulative points possible
- **NC**: Less than 70% of the cumulative points possible
- **W**: Official Withdrawal
- **I**: See below
• The N grade will not be given in this course.

• CR/NC grades require written instructor consent. Students must apply for CR/NC grading option at the Admissions Office by the posted deadline. If a student does not apply for CR/NC grading option at the Admissions Office by the required deadline and if s/he does not withdraw, a letter grade (A, B, C, D, F, N) will be assigned for the course.

• The W grade is given only when the student officially withdraws from the course by the posted deadline.

• The I grade is a temporary grade given at the instructor’s option when a student has failed to complete a small part of a course because of circumstances beyond his or her control. A student may qualify for the I grade if (a) they are unable to take the final exam and (b) taking the final exam could possibly raise their course grade. The I grade is given only after a student’s request and the instructor’s approval.

Additional Instructor Policies

• 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.
• Please respect your fellow students and act accordingly. Cell phones must be silenced when entering the classroom.
• 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/ for more information on the UH system-wide student conduct code.

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.
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<thead>
<tr>
<th>Week Of</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>AUG 22</td>
<td>Orientation, R1</td>
<td>R1, R3</td>
<td>R3, R4, Quiz</td>
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<tr>
<td>AUG 29</td>
<td>R4</td>
<td>R5, R6</td>
<td>R6, R7, Quiz</td>
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<tr>
<td>SEPT 5</td>
<td>No Class</td>
<td>R7</td>
<td>1.1, Quiz</td>
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<tr>
<td>SEPT 12</td>
<td>1.2, 1.3</td>
<td>Exam 1 Review</td>
<td>Exam 1 (R1 to 1.2)</td>
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<tr>
<td>SEPT 19</td>
<td>1.3, 1.4</td>
<td>1.4, 1.5</td>
<td>1.5, 1.6, Quiz</td>
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<tr>
<td>SEPT 26</td>
<td>1.6, 1.7</td>
<td>1.8</td>
<td>1.8, 2.1, Quiz</td>
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<tr>
<td>OCT 3</td>
<td>2.1, 2.2</td>
<td>2.2, 2.3</td>
<td>Exam 2 Review, Quiz</td>
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<tr>
<td>OCT 10</td>
<td>Exam 2 (1.3 to 2.2)</td>
<td>2.3, 2.4</td>
<td>2.4, 2.5, Quiz</td>
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<td>OCT 17</td>
<td>2.8</td>
<td>3.1</td>
<td>3.3, Quiz</td>
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<td>OCT 24</td>
<td>3.5</td>
<td>3.6</td>
<td>3.7, Quiz</td>
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<td>OCT 31</td>
<td>Exam 3 Review</td>
<td>Exam 3 (2.3 to 3.6)</td>
<td>3.7, Quiz</td>
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<td>NOV 7</td>
<td>4.2</td>
<td>4.3</td>
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<td>NOV 14</td>
<td>4.4</td>
<td>4.5</td>
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<td>NOV 21</td>
<td>5.2</td>
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<td>NOV 28</td>
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<td>5.4</td>
<td>5.5, Quiz</td>
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<td>DEC 5</td>
<td>Final Review</td>
<td>Final Review</td>
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<tr>
<td>DEC 12</td>
<td>FINAL EXAM, 12/12 10am-12pm</td>
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* This calendar is tentative. Dates of assessments may change slightly based on class progress.