**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**

Linear equation, inequalities, systems of equations, polynomial functions, fractional expressions and equations, exponents, powers, roots, quadratic equations and functions; rational, exponential and logarithmic functions.

*This course fulfills FS(Foundation Symbolic) Requirement for A.A. degree.*

**Activities Required Other Than Class Times**

Homework; possibly quizzes or exams; consultation with instructor.

It is expected that students spend, at the minimum, 12 hours per week outside of class time studying and doing homework and readings for this class.

**Learning Resources and Materials**

1. College Algebra, By Michael Sullivan;
2. Lecture Note, by Wei-Ling Landers
3. A three-ring binder to keep course materials.

**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.

**STUDENT LEARNING OUTCOMES**

The student learning outcomes for the course are:

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.

Note: All SLO assessments are embedded in class activities, homework, quizzes or Exams.

Foundations Hallmarks:

1. Students will be exposed to the beauty, power, clarity and precision of formal systems.
2. Instructor will help students understand the concept of proof as a chain of inferences.
3. Instructor 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. Instructor will build a bridge from theory to practice and show students how to traverse this bridge.

Assessment Tasks and Grading

The grade for the course will be determined primarily by the student’s level of achievement on assignments, exams, quizzes and a final exam over concepts and skills covered in the entire course.

Points will be assigned to each graded assignment, exam and quiz. Active student participation in class discussions, positive attitude about learning, additional work and responsible actions regarding the class may be utilized to help determine “borderline” cases.

The course grade will be evaluated as following, however, the instructor reserves the right to make a change if needed:

- 4 unit exams (100 points for each exam) 50% of total possible points
- Course Activities (on-line homework, in-class work, graded assignments, quizzes or special assignments) 30% of total possible points
- Final Exam 20% of total possible points

Note:

1. There is NO RETEST for this course.
2. FINAL EXAM: The final exam is cumulative (the entire course material).
3. CALCULATORS: Calculators are not allowed for tests. Calculator use is encouraged for homework problems where needed.
Each letter grade for the course will be assigned according to the level of achievement as provided in the table below:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100% of the cumulative points possible</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89% of the cumulative points possible</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79% of the cumulative points possible</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69% of the cumulative points possible</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60% of the cumulative points possible</td>
</tr>
<tr>
<td>Cr</td>
<td>70% - 100% of the cumulative points possible</td>
</tr>
<tr>
<td>NC</td>
<td>Less than 70% of the cumulative points possible</td>
</tr>
<tr>
<td>W</td>
<td>Official Withdrawal.</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete – given when a student has a passing average grade but failed to complete a small portion of the course work due to circumstances beyond his/her control.</td>
</tr>
</tbody>
</table>

Note: Students may change to CR/NC or withdraw from the class if they can not reach their desired grade. Disappearing from the class does not meet the requirement of N grade, therefore, it will result in an F grade. It is a student’s responsibility to apply at the Admissions Office for the grade option CR/NC or withdraw from the class by the **deadline Oct.29, 2012**. After the deadline, the instructor has the right to decide if a student can be granted with a “N” grade by his/her written request. In other words, the student has to submit a letter to justify how he/she meets the criteria of the “N” grade.

"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."

### Responsibilities of Students

Success in this course will be enhanced by:

1. A positive, inquiring attitude toward mathematics;
2. Setting aside adequate time for studying, working on problems, and careful cogitation of the material;
3. Reading the text carefully and making use of other learning materials whenever necessary;
4. Seeking assistance from the instructor and the Math Lab whenever necessary;
5. Regularly attending class and, notifying the instructor of an absence and responsibly obtaining and completing assignments by the designated date.
Email and Laulima Website

You are responsible for checking your UH email regularly for important announcements. You are also expected to check the Math 103 course homepage at the Laulima website for important resources for the course.

Academic Honesty

All quizzes and exams are closed books and notes and must be done by your individual effort. You may not consult with any classmates while taking quizzes or exams. You are not allowed to tell a friend the type of questions on the quiz or exam, the answers, or help a classmate in any way (e.g. by explaining how to solve the problem). This would fall under the guidelines of academic integrity and any evidence of cheating will result in a score of 0 for all parties involved. Also keep in mind that we are assessing your knowledge and understanding of the concepts and strategies – attempting to find the answers online or through other sources is not in the spirit of academic honesty. An “F” will be assigned to students involved in cheating and will be reported to the Dean.

Graded assignments that apply to the course activities portion of your grade may be discussed with your classmates and you may seek guidance from the instructor, the Math Lab tutors, or the Trio tutors (if you are a Trio client), however, the write up of the solution for each problem must be done on your individual effort unless otherwise specified by the instructor. Graded assignments are not group assignments where all members of the group write the same responses for each problem. Any evidence of plagiarism will result in a score of 0 for all parties involved. If plagiarism persists, then an “F” will be assigned to the students involved in plagiarism and will be reported to the Dean.

Disruptive Behavior

Disruptive Behavior leads to a loss of learning time. Examples are activated beepers and cell phones, texting messages, making offensive remarks, packing books before class is over, making noise, leaving class early, coming to class late, sleeping in class, prolonged chattering, reading other materials not relevant to this class, etc. If a student takes part in disruptive behavior, the instructor reserves the right to exclude the student immediately from the class meeting, and will be marked absent.

Please turn off your cell phone anytime in the class.

MyMathLab (MML)

This course will utilize MML for some assignments. The textbook purchased from the WCC bookstore is packaged with MML. If you purchase the textbook from elsewhere, be sure that it comes with the MML access code.

The MML access code also provides an e-book so if you prefer, you may purchase just the MML access code online for about $80.
Additional Information

1. **ABSENCE for lectures:**
   It is your responsibility to attend class. You are responsible for those topics and examples discussed on the day of your absence. Furthermore, you are responsible for any important announcements or homework assignments given during the class you missed. Frequent absences can negatively affect your grade. There is no make-up opportunity for any quiz, special assignment, or in-class activity that you miss due to your absences or tardiness. Three or more absences without notifying the instructor may result in an automatic F grade, especially if the student is not keeping up with his/her homework and study plan.

2. **ABSENCE ON TEST DAYS:**
   If you UNEXPECTEDLY MUST BE ABSENT ON AN EXAM DAY, notify the instructor AT LEAST ONE HOUR PRIOR TO that exam time. You can leave a voice message to me at 236-9283 or email at weiling@hawaii.edu. BE SURE TO STATE THE REASON for the absence. If no notification is received by the day of the exam or if the reason is not justifiable, then you will receive a zero “0” for that exam and no make-up will be allowed. If notification is received and the reason is justified then a make-up exam will be scheduled. You must take the make-up exam as soon as you make an arrangement with the instructor. The instructor has the right to request documentation of the student’s absence and determine if the reason for the absence is justifiable. ONLY ONE MAKE-UP EXAM may be granted to each student.

3. **HOMEWORK:**
   a) Before coming to a class, **Read** the sections to be covered and work on the problems in the lecture notes prior to that class, so you will get the most benefit from each lecture.

   b) After each class, **Read** the textbook, do the on-line assignment at [www.coursecompass.com](http://www.coursecompass.com).
   - **Step 1:** Do the media homework which is the pre-requisite of the pretest of each section.
   - **Step 2:** Do the pretest of each section to see how much concepts you have understood after you complete the media homework. Pretest is not counted into your grade.
   - **Step 3:** Do the homework assignment which is developed by the mastery level you have completed the pretest. All problems answered correctly in the pretest will be credited to homework, no need to repeat them. You just work on problems you have not mastered yet, practice more.
   - **Step 4:** Do the post-test that would be counted into your course grade.

   c) There are deadlines set for media homework, homework, pretest and post-test individually. You must finish each assignment in a timely manner. If you don’t complete each assignment in time, you will be blocked for the next assignment and lose those points. So, you must check the MML site frequently, also you can work on on-line assignment ahead of schedule to avoid block-out.

   d) Write step by step work of each problem in your notebook. You can appeal for points if you believe your work is right, but the MML marks you wrong. I will look at your work in your notebook to justify if you can earn some points back.
4. Special Assignments & LATE HOMEWORK POLICY:
Special assignments will be distributed in class in a timely manner. Any item collected for grading purpose is due at the BEGINNING OF CLASS unless otherwise specified by the instructor. It is zero point for a LATE homework. However, you can scan your homework as a PDF file and upload it to your folder in the drop box at Laulima site, then inform me by sending an email. I will check your mail box and look at your homework this way. You will earn the credit if it is turned in on-time.

5. GRADING ON HOMEWORK, QUIZZES, OR EXAMS:
To receive full credit for problems done on exams, on quizzes, or special assignments, you must show sufficient work in a clear and organized manner. It helps me determine where your error is (hence, you might be able to obtain partial credit) and if you are logically applying the mathematical tools learned to solve the given problem. Your work must be neat and organized. "Messy" and/or disorganized work will not be accepted.

6. Don’t Procrastinate
Mathematics is not a subject that you can consistently be successful in by “cramming” a day or two before the test. By “cramming” you don’t develop proficiency in doing the problems, knowledge of what to do on a particular problem and long-term understanding of the process. Also, if you procrastinate, you may fall so hopelessly behind that it becomes impossible to complete the course by the end of the semester. It requires constant work to keep on top of the course material.

Help: Your instructor and SI leader are your primary resource for help when you are lost. Seek help immediately if you have problems. Don’t wait too long!
## TENTATIVE SCHEDULE – MATH 103 Fall 2012

**CRN 61057** MWF 0830 – 9:45am Classroom: Manao 114  
**CRN 61058** MWF 0100 – 0215pm Classroom: Manao 114  
Phone: (808) 236-9283     Email: weiling@hawaii.edu  
Fax: (808) 247-5362 attention: Weiling Landers  

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>WEDNESDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td><strong>AUG 20</strong></td>
<td>Syllabus, R.1 Real Numbers</td>
<td><strong>AUG 22</strong></td>
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<td><strong>AUG 27</strong></td>
<td>R.4, R.5 Factoring Polynomials</td>
<td><strong>AUG 29</strong></td>
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<tr>
<td><strong>SEP 3</strong></td>
<td>Holiday Labor Day</td>
<td><strong>SEP 5</strong></td>
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<tr>
<td><strong>SEP 10</strong></td>
<td>1.2 Quadratic Equations</td>
<td><strong>SEP 12</strong></td>
</tr>
<tr>
<td><strong>SEP 17</strong></td>
<td>1.3 Complex Numbers; 1.4 Radical Equations; Equations Quadratic Form; Factorable Equations</td>
<td><strong>SEP 19</strong></td>
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<tr>
<td><strong>SEP 24</strong></td>
<td>1.6 Equations and Inequalities Involving Absolute Value</td>
<td><strong>SEP 26</strong></td>
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<tr>
<td><strong>OCT 1</strong></td>
<td>2.3 Lines</td>
<td><strong>OCT 3</strong></td>
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<td><strong>OCT 8</strong></td>
<td>2.4 Circles</td>
<td><strong>OCT 10</strong></td>
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<tr>
<td><strong>OCT 15</strong></td>
<td>3.2 The Graph of a function</td>
<td><strong>OCT 17</strong></td>
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<td><strong>OCT 22</strong></td>
<td>4.5 Inequalities Involving Quadratic Functions</td>
<td><strong>OCT 24</strong></td>
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<td><strong>OCT 29</strong></td>
<td>6.1 Composition Functions</td>
<td><strong>OCT 31</strong></td>
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<td><strong>NOV 5</strong></td>
<td>6.3 Exponential Functions</td>
<td><strong>NOV 7</strong></td>
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<td><strong>NOV 12</strong></td>
<td>Holiday Veteran’s Day</td>
<td><strong>NOV 14</strong></td>
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<tr>
<td><strong>NOV 19</strong></td>
<td>8.1 Systems of Linear Equations</td>
<td><strong>NOV 21</strong></td>
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<td><strong>NOV 26</strong></td>
<td>8.7 Systems of Inequalities</td>
<td><strong>NOV 28</strong></td>
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<tr>
<td><strong>DEC 3</strong></td>
<td>Final Exam Review</td>
<td><strong>DEC 5</strong></td>
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<tr>
<td><strong>DEC 10</strong></td>
<td><strong>FINAL EXAM (CRN 61058) 12:00 – 2:00</strong></td>
<td><strong>DEC 12</strong></td>
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* Sept. 5, 2010: Last day of 50% refund  
* October 29, 2010: Last Day to withdraw or change to CR/NC option.  
* December 6, 2010: Last Day of Instruction.
Progress Report... What grade do you expect to get? Are you getting it?

<table>
<thead>
<tr>
<th>In – class</th>
<th>Homework</th>
<th>Quizzes</th>
<th>Exams</th>
<th>Course Grade</th>
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<tbody>
<tr>
<td>Date</td>
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