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

An introduction to quantitative and logical reasoning for the nonscience/nonmathematics major. The question, “What is mathematics?” is explored, while focusing on mathematical systems or models, cultivating an appreciation for mathematics as an aesthetic art, and developing skills in problem solving and analysis.
(3 hrs lecture)

PREREQUISITES: Grade of “C” or better in MATH 25 or equivalent, satisfactory math placement test score.

WCC: FS

Learning Resources and Materials


Optional: Extra problems with learning aids will be available in MyMathLab: use the course ID chasse77567

MATH LAB: Manaopono 113

THE TESTING CENTER (WCC): Alakai’ 106 – phone number 235-7498
FOUNDATION HALLMARKS

Math 100 fulfills 3 credits of the General Education requirements (Foundations: Symbolic) for both an A.A. degree at WCC and a Bachelor's degree at UH Manoa. 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.

STUDENT LEARNING OUTCOMES

1. Construct diagrams that will facilitate the visual conception of a phenomenon or problem.

2. Utilize basic properties and/or operations related to Set Theory, Logic, Statistics, Linear and Quadratic functions and Counting methods.

3. Employ symbolic/mathematical techniques to solve applied problems.

4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

Note: All SLO assessments are embedded in homework, quizzes, class activities, or exams.
<table>
<thead>
<tr>
<th>COURSE CONTENT</th>
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<tbody>
<tr>
<td>Concepts or Topics</td>
</tr>
<tr>
<td>• Linear Functions</td>
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<tr>
<td>• Quadratic Functions</td>
</tr>
<tr>
<td>• Set theory ( universal, union, compliment, intersection, and empty set)</td>
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<tr>
<td>• Logic ( negation, conjunction, disjunction, and conditional statements, truth table, valid statement, Euler’s diagram)</td>
</tr>
<tr>
<td>• Counting theory and probability ( counting principle, permutation, combination, odds )</td>
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<tr>
<td>• Statistics ( Normal distribution, standard normal distribution, percentile , z-score)</td>
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**Activities Required at Scheduled Times Other Than Class Times**

Homework; quizzes; exams; consultation with instructor.

It is expected that students spend at least 9 hours per week outside of class time to read, study and do homework; to organize and summarize all course materials; and prepare well for this class.

**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 carefully cogitating the course material;

3. Reading the text carefully and making use of other learning materials whenever necessary;

4. Seeking assistance from the instructor and the SI leader, or tutors of 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.

Course Tasks and Grading Information

Grades for this course are based on the following course tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>3 exams</td>
<td>55%</td>
</tr>
<tr>
<td>Homework and Activities</td>
<td>18%</td>
</tr>
<tr>
<td>Participation in SI sessions</td>
<td>2%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
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Not doing recommended assignments in a timely manner generally results in poor exam results and a lack of success in this course.

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>
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<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>N or 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 failed to complete a SMALL part of the course due to circumstances beyond his/her control.</td>
</tr>
</tbody>
</table>

“the N grade indicates that the student 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: 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 April 2, 2012 and if s/he does not withdraw, a letter grade (A, B, C, D, F) will be assigned for the course.

Note: W grade is given only when the student officially withdraws from the
Additional Information

1. **ABSENCES:**

   It is your responsibility to attend class. If you are absent, borrow a classmate's notes and copy them for the day you were absent. 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.

2. **MAKE-UP POLICY:**

   There are no make-up opportunities for any quizzes, graded assignments, or graded in-class activities that you miss due to absences or tardiness. Some extra credit opportunities are available for the course activities portion of your grade.

   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 THE INSTRUCTOR AT LEAST ONE HOUR PRIOR TO THE EXAM TIME. THE BEST WAY IS SENDING ME AN EMAIL. 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 "0" for that exam and no make-up will be allowed. If notification is received and the reason is justifiable then a make-up exam will be scheduled. You must take the make-up exam as soon as possible after you return to school. The instructor has the right to request documentation of the student’s absence and determine if the reason for the absence is justified. **FOR EACH STUDENT, NOT MORE THAN ONE MAKE-UP EXAM MAY BE TAKEN.**

3. There is NO RETEST for this course.

4. **FINAL EXAM:** The final exam is cumulative.

5. **HOMEWORK, ACTIVITIES and EXAMS:**

   Homework will be assigned from the book as per the homework schedule. Activities include things like quizzes and participation in SI instruction. Exams and some short quizzes will be written on paper in class.

6. **HELP:**

   Your instructor is your primary human resource for help when you are lost or having trouble. Seek help immediately if you are encountering problems even after reading and re-reading the text section(s) and listening to/thinking about the
discussion in class on that section(s). See the instructor during office hours, make an appointment, email or call. Don’t wait too long to get help!! The Math Lab is also available for drop-in assistance on the course material.

If a crisis comes up that interferes with the class, communicate with your instructor in a timely manner. Too many students wait too late to inform their instructor about their crisis and that reduces the options that students may have to complete the course with a grade of C or better.

7. GRADING ON HOMEWORK, QUIZZES, OR EXAMS:

To receive full credit for problems done on exams, you must show sufficient work in a clear, logical, and organized manner. Homework will be collected at the beginning of class. A random subset of problems will be graded out of 20 points. 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.

8. 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 catch up. It requires constant work to keep on top of the material.

9. Email

Check your email frequently for important information.

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.