# Proposal to Initiate, Modify or Delete a Course

## 1. Type of Action

<table>
<thead>
<tr>
<th>Type</th>
<th>Action</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Addition</td>
<td>Regular</td>
<td></td>
</tr>
<tr>
<td>B. Deletion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Modification</td>
<td>in credits</td>
<td>in title</td>
</tr>
</tbody>
</table>

## 2. New Alpha, Number and Title

| Math 22: Pre-Algebra Mathematics |

## 3. Credits

- 3

## 4. Old Alpha, Number and Title

## 5. Credits

## 6. New Catalog Description

This course prepares students who want to strengthen computation and problem-solving skills before proceeding to an elementary algebra course. Includes a brief review of arithmetic, the concept of variables, using rational numbers, solving simple equations in one variable, percent, measure, ratio and proportion, geometry formulas, square roots and word problems.

## 7. Prerequisites

Satisfactory math placement test score or consent of instructor.

## 8. Student Contact Hours Per Week

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lecture/Lab</th>
<th>Lab</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

## 9. Proposed Date of First Offering

- Fall 1997

## 10. This Course

- Is Required
- Is an Elective for the WCC Program/Core

(Please Specify)

(Circle Approp.)

Can Fulfill

(Please Specify)

## 11. This Course

- Increases
- Decreases
- Makes No Change in Number of Credits Required for the Program/Core

## 12. Similar Courses Offered Else Where

- College(s): HAWAI CC
- Alpha, Number, Title: Math 22: Pre-Algebra Mathematics

- College(s): MAUI CC
- Alpha, Number, Title: Math 22: Pre-Algebra Mathematics

## 13. This Course Is

- Already Articulated
- Appropriate for Articulation
- Not Yet Appropriate for Articulation

(Provide details of existing or desired articulation (date, college(s), purposes, pre-major or major, etc.)

## 14. Reason for Initiating, Modifying or Deleting Course or Other Pertinent Comment:

To provide a developmental course to prepare students for elementary algebra.

## Requested By:

- Clay Aiken

## Approved By:

- David Repec
- Paul R. Jones
- Michael Jones
- Karl Jones

## Date

- 2-11-97
- 3-4-97
- 6-12-97
- 3-17-97
- 3-19-97

## Change Recorded by Catalog Preparer:

- AM
# Levels of Review of Course Proposals at WCC

<table>
<thead>
<tr>
<th>Signatures</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td><strong>1. Subject Area</strong> (one or more instructors in the area)</td>
<td></td>
</tr>
<tr>
<td>Jean Okumura</td>
<td>2/11/97</td>
</tr>
<tr>
<td>Lee Lewis</td>
<td>2/11/97</td>
</tr>
<tr>
<td>Kaylee</td>
<td>2/11/97</td>
</tr>
<tr>
<td></td>
<td>2/11/97</td>
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</table>

<table>
<thead>
<tr>
<th><strong>2. Department</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles K. Hiest</td>
<td>2-11-97</td>
</tr>
<tr>
<td>Department Chairperson</td>
<td></td>
</tr>
<tr>
<td>Was this course discussed in a dept. mtn.?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>2-11-97</td>
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</table>

<table>
<thead>
<tr>
<th><strong>3. Division</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Dean of Instruction</td>
<td>2-13-97</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>4. Curriculum Committee Review</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>X</td>
</tr>
<tr>
<td>Disapproved</td>
<td></td>
</tr>
<tr>
<td>Reason:</td>
<td></td>
</tr>
<tr>
<td>David DeVincent</td>
<td>3/14/97</td>
</tr>
<tr>
<td>Curriculum Committee Chairperson</td>
<td></td>
</tr>
</tbody>
</table>

WCC FORM FOR NEW COURSE PROPOSALS

Course: Math 22

Submitted by: Clayton Akatsuka & Jean Okumura

Date: Feb. 10, 1997

1. How is this course related to the educational needs and goals of the College/Department/Community as reflected in the EDP?

   The Academic Development Plan recognizes that with the open-door policy, the College must continue to offer developmental courses to serve high risk students and enhance their chances of success in college.

2. Provide details of any additional staff, equipment, facilities, library/media material, faculty preparation and other financial support that would be required to implement this course. (Include an estimate of the actual cost of supplies and equipment.) What has been done to provide for these additional costs for the proposed date of offering? Who will teach the course?

   No additional staff is needed. Current math faculty can teach the course.

3. Is a similar course taught elsewhere in the UH system? Yes

   If yes, provide details of how this course differs from existing similar courses.

   It is equivalent to Math 22 offered at Hawaii and Maui Community Colleges

4. Is this course experimental and/or unique to Windward Community College? No

   If yes, provide rationale and details of its impact on the College curriculum.

5. Is a similar course taught on the upper division level by a 4-year UH college? No

   If yes, explain why this course is appropriate at the lower division or how it differs from its upper division counterpart.

6. Please attach a complete course outline. Your course outline should address all the items listed in the Guidelines for Course Outlines.

7. If this course is numbered 100 or above or appropriate for transfer to a 4-year college, complete and attach WOC Form for Transfer Courses (blue). (See attached criteria for transfer courses.)

WCC 9/91
WINDWARD COMMUNITY COLLEGE
OUTLINE OF COURSE OBJECTIVES

COURSE NAME: PRE-ALGEBRA MATHEMATICS
COURSE NUMBER: MATH 22
COURSE CREDITS: 3 credits

CATALOG DESCRIPTION: This course prepares students who want to strengthen computation and problem-solving skills before proceeding to an elementary algebra course. Includes a brief review of arithmetic, the concept of variables, using rational numbers, solving simple equations in one variable, percent, measure, ratio and proportion, geometry formulas, square roots and word problems.

PREREQUISITES: Satisfactory math placement test score or consent of instructor.

REQUIREMENTS COURSE SATISFIES AT WCC: None.

POSSIBLE TEXT: Pre-Algebra by Bittinger & Ellenbogen
READING LEVEL OF TEXT: 13 (Approximately)

ACTIVITIES REQUIRED AT SCHEDULED TIMES OTHER THAN CLASS TIMES: Homework; Math Lab or TLC Activities as needed; Retesting as needed.

EFFECTIVE DATE: Fall 1997
Course Outline - Math 22

A. Goals of the Course

1. To provide the student with an appreciation and understanding of pre­
   mathematics and its structure and applications.

2. To develop the student’s mathematical skills required for everyday living, occup
   needs and for elementary algebra.

3. To develop the student’s ability to apply and utilize mathematical techniques and me
   for problem solving.

4. To develop a heightened awareness and appreciation of the usefulness of mathemat.
   a service tool in our contemporary society.

B. Objectives of the Course

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

1. Demonstrate proficiency in applying and performing operations with whole numb
   integers, rational numbers, and real numbers.

2. Translate word problems into mathematical expressions or equations.

3. Employ derived mathematical formulas to determine measurements of geometric figu
   both in English system and the metric system.

4. State and utilize fundamental concepts and properties of equations.

5. Apply the concepts and principles of the percent to obtain solutions to applied proble
   with percent, taxes, commission, and discount.

6. Utilize precise mathematical language and symbols.

C. Mode of Instruction

The mode of instruction is primarily 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 assignment, and the remaining portion is used to discuss and work on new
material. After the completion of each unit of instruction, a review and an exam will be
conducted.
Course Outline - Math 22

D. Method of Grading

The student will demonstrate competency in the objectives via assignments, unit exams and/or quizzes and a final exam over concepts and skills covered in the entire course. Exams and quizzes are to be taken within the classroom environment and without any references unless otherwise stipulated by the instructor.

It will be the student’s responsibility to obtain and complete all assignments which are given in any class meeting for which the student is unable to attend. Unless permission is granted by the instructor, assignments, tests and quizzes must be completed and submitted to the instructor at the specified date and time.

Points will be assigned to each exam, quiz and graded assignment. The student must achieve a minimum of 60% of the possible points for each unit exam. Furthermore, the student must achieve a minimum of 50% of the possible points for the final exam. Without these two minimum requirements, a passing grade for the course is not possible.

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>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>

Note: Cr/NC grades require written instructor consent. Students must apply for Cr/NC grading option at the Admissions Office by the 10th week of classes.

Note: W grade is given only when the student officially withdraws from the course at the Admissions Office by the 10th week of classes.
SYLLABUS FOR MATH 22

1. Solving Equations - 2 wks
2. Ratio & Proportions - 2 wks
3. Percents - 2.5 wks
4. Geometry and Measures - 2.5 wks
5. Working with Integers, Rational and Real Numbers in Algebraic Expressions and in Solving Equations - 3.5 wks
6. Translating to Algebraic Expressions or Equations - 2.5 wks