COLLEGE OF THE MARSHALL ISLANDS

COURSE OUTLINE

CIP NO. 27.0102

MATH 110
Alpha Number

Course Number

Course Title

College Algebra

Course Description

Builds on the fundamentals of Algebra developed in basic and intermediate courses. Extends the students knowledge and skills in algebra through practical applications related to real world situations.

Course prepared by: Mathematics Department

January 2003

<table>
<thead>
<tr>
<th>Hours per Week</th>
<th>Number of Weeks</th>
<th>Total Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
<td>16</td>
<td>48</td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminar</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours: 3

Purpose of Course:
Degree Requirement: 
Degree Elective: x
Certification: 
Developmental: 
Other: 

Prerequisite: Math 095 or Placement into credit
Level math

******************************************************************************

[Signatures and dates]

Signature, Curriculum & Assessment Committee Chairperson
1-4-2012

Date

Signature, Dean of Academic Affairs
1-4-2012

Date

Signature, Vice-President for Academic and Student Affairs
1/5/12

Date

Last Date reviewed or revised: April 2009
I. **College Algebra**  
   **Course Title**

II. **Course Objectives**

A. **General Outcomes**
   
   Students who complete this course will:
   1. Simplify algebraic expressions and solve algebraic equations (GE 5) (LA 4)
   2. Model real world situations using a variety of algebraic relations (GE 5) (LA 4)
   3. Integrate graphing techniques in the discovery and interpretations of patterns and relationships (GE 5) (LA 4)
   4. Acquire the capability to use technology in solving problems (GE 5) (LA 5)
   5. Reflect on solutions and communicate their reasoning (GE 3) (LA 3).

B. **Student Learning Outcomes**
   
   Upon completion of this course, the students will be able to:
   1. Demonstrate proficiency in evaluating and solving equations that contain exponents and radicals by using factoring, graphing, substitution and elimination methods
   2. Solve real-world problems by utilizing quadratic, rational, radical, absolute value, linear, exponential and logarithmic functions
   3. Evaluate, solve and graph functions and relations
   4. Utilize appropriate technology to solve problems
   5. Verify and interpret the solutions of a problem and communicate the significance of the solution.

III. **Course Content**

   This course provides the student with practical applications and approaches to real world situations using algebra.

   1. Review exponents, radicals, factoring, systems of equations and linear equations
   2. Quadratic, Rational, Radical, Absolute Value Equations
   3. Functions, Relations and Graphs
   4. Exponential and Logarithmic Functions and their Graphs

IV. **Methods of Instruction**

   1. Lecture
   2. Cooperative group activities
   3. Whole-class activities
   4. Computer software programs and other technology
   5. Projects
V. Equipment and Materials

1. Rulers
2. Geometric tools
3. Scientific and graphing calculators
4. Math videos
5. TV and VCR
6. Computer lab

VI. Suggested Methods of Evaluation

1. Participation
2. Direct observation
3. Homework
4. Class work
5. Group work
6. Quizzes
7. Exams
8. Projects

Letter grades will be assigned per CMI Grading System