CMI COURSE CURRICULUM
COURSE ACTION

Course Title: <u>Introductory Algebra</u>   **Alpha Number:** <u>Math 088</u>   **CIP No.** <u>33.0101</u>

Type of Action:

_____New Course (attach narrative justification for course creation)

_____Substantive Revision (attach narrative justification for changes, including assessment and/or achievement data and feedback from the advisory committee if relevant)

       Select all that apply:
       _____Change in number of credit hours
       _____Change in prerequisite
       _____Substantive change in course content
       _____Change to SLOs _____Other:

__x___Non-substantive Revision
       Select all that apply:
       _____Change in Alpha Number or Title (unless letter abbreviation has not previously been used)
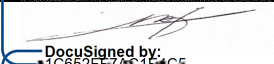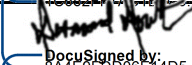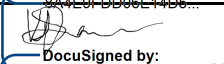   _____Edit to course description that does not alter the substance of the course
       _____Change to recommended texts
       ___x__Other: Change in number of contact hours from 64 to 60

_____ Reinstitution of Archived Course (attach narrative justification for reinstitution, including evidence of demand, evidence of capacity, feedback from the advisory committee if relevant, and commentary that speaks directly to the reasons the course was initially archived)

_____ Reaffirmation of Course (only allowable if course completion rate exceeds ISS, the benchmark has been met for the majority of SLO assessments, and there is no evidence of inequitable levels of achievement across subpopulations; attach evidence)

Approvals:

	Name	Signature	Date
Department Chair	Edward Alfonso	*DocuSigned by:*	6/6/2024
Curriculum Committee Chair	Desmond Doulatram	*DocuSigned by:*	6/5/2024
Dean	Vasemaca Savu	*DocuSigned by:*	6/5/2024
VPASA	Dr. Elizabeth Switaj	*DocuSigned by:*	6/10/2024

CMI COURSE OUTLINE

CIP No. 33.0101   **Version No.** 004

Math 088   Introductory Algebra
Alpha Number   **Course Title**
Previous Alpha Number:
Course Description: Establishes a foundation in algebraic concepts with a focus on simplifying expressions, solving linear equations and inequalities, graphing linear equations in two variables, exponents, introduction to planar geometry, polynomial operations, factoring and solving quadratic equations by factoring.

Course originally prepared by: Math Curriculum Committee   STeM   March/2010
Most recent revision by: Edward Alfonso   STeM   June/2024

Course mode(s): __x__ Face to Face (including Zoom)   ____ Hybrid   ____ Distance Education

Credits calculated by: __x__ Credit Hour   ____ Clock Hour

Contact Hours: __60____

Type	No. of Hours	No. of Credits	Maximum No. of Hours Online
Lecture/Seminar/Workshop	60	4	
Clinical			
Practicum			
Lab			
Fieldwork			
Studio Time			
Total	60	4	

Purpose(s) of Course: Degree Requirement _____
                          Degree Elective   _____
                          General Education   _____
                          Credit Certification _____
                          Developmental   _____x_____
                          CTE/TVET   _____ _____
                          ABE/Adult HS   _____

Distribution Area: Humanities   _____
                           Social Sciences   _____
                           Mathematics (Credit) _____
                           Science   _____

Prerequisite: Math Placement

Student Learning Outcomes: Upon completion of this course, students will be able to:
1. Solve linear equations and inequalities with one variable.
2. Perform basic operations involving polynomials.
3. Graph linear equations in two variables.
4. Factor polynomials and solve quadratic equations by factoring.
5. Solve application problems involving linear and quadratic equations.

SLO Mapping:

Prerequisite Course SLO	Linked SLO from this Course	Explanation
None	None	

Links to Program Learning Outcomes:

SLO	Linked PLO	I/P/M	Explanation of Link
1	PLO01 – Equations and Inequalities DEV Algebraic Reasoning DEV Algebraic Reasoning	I	Students will be exposed to linear equations and inequalities with one variable.
2	PLO03 – Quantitative Problems DEV Algebraic Reasoning	I	Students will be exposed to the operations on polynomials and properties of exponents.
3	PLO02 – Graphs DEV Algebraic Reasoning	I	Students will be exposed to factoring polynomials through the use of varied techniques and solving quadratic equations.
4	PLO03 – Quantitative Problems DEV Algebraic Reasoning	I	Students will be exposed to factoring polynomials through the use of varied techniques and solving quadratic equations.
5	PLO04 – Word Problems DEV Solving Word Problems	I	Students will be exposed to solving real – life problems as an application to linear equations in one variable and quadratic equations in one variable and quadratic equations using POLYA's four – steps in solving word problems.

Course Content: Students in this course will be introduced to:
1. Real Numbers
2. Variables and Algebraic Expressions
3. Linear equations and inequalities in one variable
4. Exponents and polynomials
5. Factoring
6. Quadratic Equations

Higher Order Thinking Skills

__x__ Analyzing the basic elements of an idea, experience, or theory
__x__ Making judgements about the value or soundness of information, arguments, or methods
_____ Applying theories or concepts to practical or in new situations

Recommended Methods of Instruction

__x__ Demonstration
__x__ Lecture
__x__ Small group discussion
__x__ Class discussion
__x__ Audio-Visual Aids
_____ Laboratory
__x__ Supervised Practice
_____ Field Trips
_____ Other:

Recommended Assessment Tool Type(s):

_____ Case Study
_____ Critique of Performance
__x__ Exam/Quiz In-Course
_____ Exam/Quiz Standardized (attach narrative describing development and validation process)
_____ Focus Group
__x__ Group Project
__x__ Individual Project
_____ Observation
_____ Portfolio Review
_____ Presentation
_____ Simulation
_____ Skill Performance
_____ Supervisor Evaluation
_____ Survey
__x__ Written Assignment

Required Forms of Regular and Substantive Interaction for Hybrid or Distance Education Courses (Select at Least Two):

_____Direct instruction through:
     _____ Live video lectures
     _____ Live audio-only lectures
     _____ Live text chats
_____ Assessing or providing feedback on a student's coursework
_____ Providing information or responding to questions about the content of a course or competency through
     _____ Live video discussions
     _____ Live audio-only discussions
     _____ Live text chats
_____ Facilitating a group discussion regarding the content of a course or competency through:
     _____ Live video discussion
     _____ Live texts chats
     _____ Asynchronous message boards or text chats
_____ Other, specify:

Note: for distance education courses, if only two are selected, both must occur within the course on a weekly basis. If more than two are selected, the instructor may choose which two are used during each week.

Equipment and Materials:
1. Recommended texts: Karr M. Rosemary, Massey B. Marilyn, Gustafson R. David. Beginning and Intermediate Algebra (A Guided Approach), 7th Edition. Cengage Learning, 2014. ISBN – 13: 978 – 1435462533.
2. Equipment/Facilities: Laptop for Moodle, and Online Activities
3. Materials and Supplies: Rules, Graphing paper, manipulative learning materials

Connection to College Mission:
The College of the Marshall Islands will provide our community with access to quality, higher and further educational services, prioritize student success through engagement in relevant Academic, Career and Technical Education, and be a center for the study of Marshallese Culture. It will also provide intellectual resources and facilitate research specific to the needs of the nation. EC approved 4th Nov, 2020.BOR approved 1st December, 2020

This course provides students the essential tools in understanding the mathematical concepts that can be used as tools to a more critical and analytical thinking for a scientific understanding of events and phenomena to further develop the quest for more academic endeavors and to equip students with the numeracy skills needed for daily living.

Connection to Department Mission:

The mission of the Science, Technology, and Mathematics (STeM) Department is to provide science, technology and mathematics courses to support academic programs and prepare students seeking careers in marine science or an advanced education in a STeM discipline. Approved by CC on March 5, 2018. Approved by IEC on March 14, 2018.

This course provides students with the underpinning knowledge in the study of algebra that prepares students for taking higher level math. It provides background knowledge of elementary algebra required before taking further mathematics courses from intermediate algebra to credit bearing mathematics courses that support a marine science degree or an advanced education in a STeM discipline. The content of the course focuses on developing skills in solving linear and quadratic equations, graphing linear inequalities in one variable and linear equations in two variables, performing basic polynomial operations, factoring polynomials and solving real-life problems