I. CATALOG INFORMATION

A. Discipline: MATHEMATICS

B. Subject Code and Number: MATH M903

C. Course Title: Bridge to Intermediate Algebra (Math M03)

D. Credit Course units:

Units: _____

Lecture Hours per week: 0

Lab Hours per week : 0.5

Variable Units : No

E. Student Learning Hours:

Lecture Hours:

Classroom hours: 0 - 0

Laboratory/Activity Hours:

Laboratory/Activity Hours 8.75 - 8.75

Total Combined Hours in a 17.5 week term: 8.75 - 8.75

F. Non-Credit Course hours per week _____

G. May be taken a total of: [X] 1 [ ] 2 [ ] 3 [ ] 4 time(s) for credit

H. Is the course co-designated (same as) another course: No [X] Yes [ ]
If YES, designate course Subject Code & Number: _____

I. Course Description:

Prepares student for the prerequisite materials necessary to be successful in Math M03. Includes linear equations, quadratic equations, factoring polynomials, quadratic, rational, exponential and logarithmic functions, and graphing.

J. Entrance Skills

*Prerequisite: No [X] Yes [ ] Course(s)

_____

*Corequisite: No [X] Yes [ ] Course(s)

_____

Limitation on Enrollment: No [X] Yes [ ]

_____

Recommended Preparation: No [X] Yes [ ] Course(s)

_____

Other: No [X] Yes [ ]

_____

K. Other Catalog Information:

II. COURSE OBJECTIVES

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

		Methods of evaluation will be consistent with, but not limited by, the following types or examples.
1	simplify and evaluate algebraic expressions.	Lecture discussions Problems Group work
2	solve first-degree equations in one variable and check the solution.	Lecture discussions Problems Group work
3	solve applied problems involving first-degree equations in one variable.	Lecture discussions Problems Group Work
4	solve first-degree inequalities in one variable.	Lecture discussions Problems Group Work
5	graph a linear equation.	Lecture discussions Prolems Group work
6	simplify expressions involving integer exponents using the properties and rules of exponents.	Lecture discussions Problems Group work
7	determine the degree of a polynomial and simplify, add, subtract, and multiply polynomials.	Lecture discussions Problems Group work
8	factor a polynomial using the greatest common factor and the grouping method, factor trinomials, and use the difference of squares.	Lecture discussions Problems Group work
9	solve quadratic equations by factoring.	Lecture discussions Problems Group work

III. COURSE CONTENT

Estimated %	Topic	Learning Outcomes
Lecture (must total 100%)		
20.00%	Review of Algebra 1. Review of arithmetic with emphasis on integers and fractions 2. Exponents and order of operations 3. Algebraic expressions 4. Evaluating algebraic expressions 5. Simplifying algebraic expressions	1
20.00%	First-Degree Equations and Inequalities 1. Basic properties of equalities 2. Solving first-degree equations in one variable 3. Applications of first-degree equations 4. Basic properties of inequalities 5. Solving first-degree inequalities in one variable	2, 3, 4
20.00%	Graphing Lines 1. The rectangular coordinate system 2. Graphing a linear equation in two variables 3. Intercepts 4. Slope-intercept form	5
20.00%	Polynomials 1. Terminology of polynomials and the degree of a polynomial 2. Simplification of polynomials 3. Addition and subtraction of polynomials 4. Multiplication of polynomials	1, 7
20.00%	Factoring 1. Factoring out the greatest common fact 2. Factoring a polynomial with four terms by grouping 3. Factoring trinomials 4. Factoring a difference of two squares 5. Solving quadratic equations by the factoring method	1, 2, 3, 4, 5, 6, 7, 8, 9

IV. TYPICAL ASSIGNMENTS

A. Writing assignments

Writing assignments are required. Possible assignments may include, but are not limited to:	
1	problems selected from the bridge packet where answers require a written explanation of the solution, such as solving an equation.
2	assignments requiring complete solutions using both written English and symbolic mathematical language, such solving application problems.

B. Appropriate outside assignments

Appropriate outside assignments are required. Possible assignments may include, but are not limited to:	
1	assigned reading from bridge packet on such topics as factoring polynomials.
2	problems selected from the bridge packet where answers require a written explanation of the solution, such as solving an equation.

C. Critical thinking assignments

Critical thinking assignments are required. Possible assignments may include, but are not limited to:

1	apply analytic techniques for solving mathematical and application problems.
2	compare and contrast methods of solution to mathematical problems.
3	describe and apply the algorithmic steps for obtaining the solution to a mathematical problem.

V. METHODS OF INSTRUCTION

Methods of instruction may include, but are not limited to:

☐ Distance Education – When any portion of class contact hours is replaced by distance education delivery mode (Complete DE Addendum, Section XV)

☒ Lecture/Discussion

☐ Laboratory/Activity

☒ Other (Specify)
Analyze mathematical topics
Provide detailed step-by-step examples
Provide practice problems to develop proper mathematical skills and techniques
Provide student interaction for questions and answers
Using projects and/or group work to enhance student understanding of the concepts
Discuss application problems

☐ Optional Field Trips

☐ Required Field Trips

VI. METHODS OF EVALUATION

Methods of evaluation may include, but are not limited to:

☐ Essay Exam	☒ Classroom Discussion	☒ Skill Demonstration
☐ Problem Solving Exam	☐ Reports/Papers/ Journals	☐ Participation
☐ Objective Exams	☐ Projects	☒ Other (specify)

Group work

Board work

VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS

Martin-Gay, Elayn. Beginning Algebra. 7th ed. Pearson, 2017.

Tussy, Alan S., and R. David Gustafson. Elementary Algebra. 5th ed. Brooks Cole, 2013.

Bridge to Math M03 Workbook by Tom Ogimachi
Unpublished

VIII. STUDENT MATERIALS FEES

[X] No [ ] Yes

IX. PARALLEL COURSES

College	*Course Number*	*Course Title*	*Units*
College of the Redwoods	MATH-276	MATH-276 - Pre-Algebra for College Preparation	0

X. MINIMUM QUALIFICATIONS

Courses Requiring a Masters Degree:
Master's in mathematics or applied mathematics OR Bachelor's in either of the above AND Master's in statistics, physics, or mathematics education

XI. ARTICULATION INFORMATION

A. Title V Course Classification:

1. This course is designed to be taken either:

   [X] Pass/No Pass only (no letter grade possible); or
   [ ] Letter grade (P/NP possible at student option)

2. Degree status:
   Either [ ] Associate Degree Applicable; or [X] Non-associate Degree Applicable

B. Moorpark College General Education:

1. Do you recommend this course for inclusion on the Associate Degree General Education list?
   Yes: [ ] No: [X] If YES, what section(s)?

   [ ] A1 - Natural Sciences - Biological Science
   [ ] A2 - Natural Sciences - Physical Science
   [ ] B1 - Social and Behavioral Sciences - American History/Institutions
   [ ] B2 - Social and Behavioral Sciences - Other Social Behavioral Science
   [ ] C1 - Humanities - Fine or Performing Arts
   [ ] C2 - Humanities - Other Humanities
   [ ] D1 - Language and Rationality - English Composition
   [ ] D2 - Language and Rationality - Communication and Analytical Thinking
   [ ] E1 - Health/Physical Education
   [ ] E2 - PE or Dance
   [ ] F - Ethnic/Gender Studies

C. California State University(CSU) Articulation:

1. Do you recommend this course for transfer credit to CSU? Yes: [ ] No: [X]

2. If YES do you recommend this course for inclusion on the CSU General Education list?
   Yes: [ ] No: [X] If YES, which area(s)?

A1 ☐ A2 ☐ A3 ☐ B1 ☐ B2 ☐ B3 ☐ B4 ☐

C1 ☐ C2 ☐ D1 ☐ D2 ☐ D3 ☐ D4 ☐ D5 ☐

D6 ☐ D7 ☐ D8 ☐ D9 ☐ D10 ☐ E ☐

D. University of California (UC) Articulation:

1. Do you recommend this course for transfer to the UC? Yes: ☐ No: ☒
2. If YES do you recommend this course for the Intersegmental General Education Transfer Curriculum (IGETC)? Yes: ☐ No: ☒

IGETC Area 1: English Communication

- ☐ English Composition
- ☐ Critical Thinking-English Composition
- ☐ Oral Communication

IGETC Area 2: Mathematical Concepts and Quantitative Reasoning

- ☐ Mathematical Concepts

IGETC Area 3: Arts and Humanities

- ☐ Arts
- ☐ Humanities

IGETC Area 4: Social and Behavioral Sciences

- ☐ Anthropology and Archaeology
- ☐ Economics
- ☐ Ethnic Studies
- ☐ Gender Studies
- ☐ Geography
- ☐ History
- ☐ Interdisciplinary, Social & Behavioral Sciences
- ☐ Political Science, Government & Legal Institutions
- ☐ Psychology
- ☐ Sociology & Criminology

IGETC Area 5: Physical and Biological Sciences (mark all that apply)

- ☐ Physical Science Lab or Physical Science Lab only (none-sequence)
- ☐ Physical Science Lecture only (non-sequence)
- ☐ Biological Science
- ☐ Physical Science Courses
- ☐ Physical Science Lab or Biological Science Lab Only (non-sequence)
- ☐

- [ ] Biological Science Courses
- [ ] Biological Science Lab course
- [ ] First Science course in a Special sequence
- [ ] Second Science course in a Special Sequence
- [ ] Laboratory Activity
- [ ] Physical Sciences

IGETC Area 6: Language other than English

- [ ] Languages other than English (UC Requirement Only)
- [ ] U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)
- [ ] U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)

XII. REVIEW OF LIBRARY RESOURCES

A. What planned assignment(s) will require library resources and use?

The following assignments require library resources:
Using the Library's print and online resources to provide support material for algebraic content and real world applications. May want to make use of the math textbooks On Reserve in Circulation.

B. Are the currently held library resources sufficient to support the course assignment?

YES: [X] NO: [ ]

If NO, please list additional library resources needed to support this course.

XIII. PREREQUISITE AND/OR COREQUISITE JUSTIFICATION

MATH M903: Not Applicable

XIV. WORKPLACE PREPARATION

MATH M903: Not Applicable

XV. DISTANCE LEARNING COURSE OUTLINE ADDENDUM

MATH M903: Not Applicable

XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM

MATH M903: Not Applicable

XVII. STUDENT MATERIALS FEE ADDENDUM

MATH M903: Not Applicable

XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041

MATH M903: Not Applicable

XIX. CURRICULUM APPROVAL

Course Information:
Discipline: MATHEMATICS

Discipline Code and Number: MATH M903

Course Revision Category: New Course

Course Proposed By:

Originating Faculty Cindy Reed 06/22/2017

Faculty Peer: Christine Cole 06/24/2017

Curriculum Rep: Thanh Trinh 07/15/2017

Department Chair: Christine Cole 06/24/2017

Division Dean: Mary Rees 07/05/2017

Approved By:

Curriculum Chair: Jerry Mansfield 10/13/2017

Executive Vice President: Julius Sokenu 10/16/2017

Articulation Officer: Letrisha Mai 09/21/2017

Librarian: Mary LaBarge 09/20/2017

Implementation Term and Year: Fall 2018

Approval Dates:

Approved by Moorpark College Curriculum Committee: 10/03/2017

Approved by Board of Trustees (if applicable): 12/12/2017

Approved by State (if applicable): 04/27/2018