I. CATALOG INFORMATION
   A. Discipline: MATHEMATICS
   B. Subject Code and Number: MATH M05
   C. Course Title: College Algebra
   D. Credit Course units:
      Units: 4
      Lecture Hours per week: 4
      Lab Hours per week: 0
      Variable Units: No
   E. Student Learning Hours:
      Lecture Hours:
      Classroom hours: 70 - 70
      Laboratory/Activity Hours:
      Laboratory/Activity Hours 0 - 0
      Total Combined Hours in a 17.5 week term: 70 - 70
   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:
      Covers quadratic equations, linear and non-linear inequalities, absolute value
      equations and inequalities, complex numbers, functions, polynomial functions,
      rational functions, exponential functions, logarithmic functions, and systems of
      equations. Includes the theory of polynomial equations and analytic geometry,
      conic sections, sequences and series.
   J. Entrance Skills
      *Prerequisite: No X Yes Course(s)
      MATH M03 or MATH M03B or High School Algebra II or placement as
determined by the college's multiple measures assessment process
      *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:

Course Credit Limitation:

1. MC and CSU - completing MATH M05 and MATH M06 is equivalent to completing MATH M07. Students completing MATH M05, M06, and M07 receive maximum credit of 7 units for MC and CSU.

2. UC - MATH M05 and MATH M06 combined: maximum credit one course no more than 5 semester units or 7.5 quarter units.

3. UC - MATH M07: maximum credit one course no more than 5 semester units or 7.5 quarter units.

C-ID: MATH 151

II. COURSE OBJECTIVES

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

<table>
<thead>
<tr>
<th></th>
<th>Methods of evaluation will be consistent with, but not limited by, the following types or examples.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>state and apply the definition of a function and use the vertical line test.</td>
</tr>
<tr>
<td>2</td>
<td>evaluate functions at both numerical and algebraic domain values.</td>
</tr>
<tr>
<td>3</td>
<td>determine the domain and range of a relation or function given its equation or its graph.</td>
</tr>
<tr>
<td>4</td>
<td>form a new function from original functions using the functional operations of addition, subtraction, multiplication, division, and composition.</td>
</tr>
<tr>
<td>5</td>
<td>use the horizontal line test and the definition of an inverse function to determine whether a pair of functions are inverses.</td>
</tr>
<tr>
<td>6</td>
<td>graph the functions which yield the parabola, the absolute value, the cubic, the square root, the cube root, and ones defined piecewise; solve linear and radical equations, and absolute value equalities and inequalities.</td>
</tr>
<tr>
<td>7</td>
<td>test equations of graphs for symmetries about the x-axis, the y-axis, and the origin.</td>
</tr>
<tr>
<td>8</td>
<td>graph a function whose equation yields a translation and/or reflection of a known graph.</td>
</tr>
<tr>
<td></td>
<td>Topic</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>graph a parabola given by a quadratic function.</td>
</tr>
<tr>
<td>10</td>
<td>give a rough sketch of the graph of a polynomial function of degree three or larger given its factored form.</td>
</tr>
<tr>
<td>11</td>
<td>determine the domain and range as well as the horizontal and vertical asymptotes of a rational function and use that information to graph it; be able to solve rational equations.</td>
</tr>
<tr>
<td>12</td>
<td>graph exponential and logarithmic functions.</td>
</tr>
<tr>
<td>13</td>
<td>convert equations back and forth from exponential to logarithmic form.</td>
</tr>
<tr>
<td>14</td>
<td>apply the rules of logarithms involving logarithms of products, quotients, powers, and change of base and solve logarithmic functions.</td>
</tr>
<tr>
<td>15</td>
<td>solve exponential equations which have the same base on both sides and ones that do not have the same base on both sides of the equation by using logarithms.</td>
</tr>
<tr>
<td>16</td>
<td>use the following theorems (over the complex numbers): Remainder, Factor, Fundamental Theorem of Algebra, Rational Roots (with synthetic division), and Conjugate Roots to solve polynomial equations.</td>
</tr>
<tr>
<td>17</td>
<td>solve systems of linear equations using substitution and addition (elimination) with two and three variables and determine consistency and dependency as germane.</td>
</tr>
<tr>
<td>18</td>
<td>solve systems of nonlinear equations and linear and non-linear systems of inequalities.</td>
</tr>
<tr>
<td>19</td>
<td>identify and determine the properties of conic sections and sketch their graphs, including circles, ellipses and hyperbolas.</td>
</tr>
<tr>
<td>20</td>
<td>determine and identify terms for sequences and series.</td>
</tr>
</tbody>
</table>

### III. COURSE CONTENT

<table>
<thead>
<tr>
<th>Estimated %</th>
<th>Topic</th>
<th>Learning</th>
</tr>
</thead>
</table>
file:///E/Courses/MATH%20M05%205514%20(Substantial%20Course%20Revision,%20Fall%202019).htm[4/23/2019 1:46:37 PM]
<table>
<thead>
<tr>
<th>Lecture (must total 100%)</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Relations and Functions</strong></td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td>20.00%</td>
<td></td>
</tr>
<tr>
<td>1. Definition of a relation and of a function</td>
<td></td>
</tr>
<tr>
<td>2. Function notation</td>
<td></td>
</tr>
<tr>
<td>3. Domain and range determined from an equation or graph</td>
<td></td>
</tr>
<tr>
<td>4. Combining functions: addition, subtraction, multiplication, division and composition</td>
<td></td>
</tr>
<tr>
<td>5. One-to-one functions</td>
<td></td>
</tr>
<tr>
<td>6. Inverse functions</td>
<td></td>
</tr>
<tr>
<td>7. Solving linear and radical equations.</td>
<td></td>
</tr>
<tr>
<td>8. Solving absolute value equalities and inequalities.</td>
<td></td>
</tr>
<tr>
<td><strong>B. Graphing Non-linear Equations and Functions</strong></td>
<td>6, 7, 8, 9, 10, 11, 19</td>
</tr>
<tr>
<td>20.00%</td>
<td></td>
</tr>
<tr>
<td>1. Graphs of basic non-linear functions</td>
<td></td>
</tr>
<tr>
<td>2. Piecewise defined functions and graphs</td>
<td></td>
</tr>
<tr>
<td>3. Graph symmetry</td>
<td></td>
</tr>
<tr>
<td>4. Translation and reflection of graphs</td>
<td></td>
</tr>
<tr>
<td>5. Graphing parabolas</td>
<td></td>
</tr>
<tr>
<td>6. Graphing circles</td>
<td></td>
</tr>
<tr>
<td>7. Graphing polynomial functions of degree 3 or higher</td>
<td></td>
</tr>
<tr>
<td>8. Graphing rational functions</td>
<td></td>
</tr>
<tr>
<td>9. Graphing ellipses and hyperbolas</td>
<td></td>
</tr>
<tr>
<td><strong>C. Exponential and Logarithmic Functions</strong></td>
<td>12, 13, 14, 15</td>
</tr>
<tr>
<td>20.00%</td>
<td></td>
</tr>
<tr>
<td>1. Solving exponential equations with the same base</td>
<td></td>
</tr>
<tr>
<td>2. Exponential functions and graphs</td>
<td></td>
</tr>
<tr>
<td>3. The natural exponential function and e</td>
<td></td>
</tr>
<tr>
<td>4. Definition of logarithms</td>
<td></td>
</tr>
<tr>
<td>5. Logarithmic functions and graphs</td>
<td></td>
</tr>
<tr>
<td>6. Rules of logarithms</td>
<td></td>
</tr>
<tr>
<td>7. Solving exponential equations using logarithms</td>
<td></td>
</tr>
<tr>
<td>8. Solving logarithmic equations</td>
<td></td>
</tr>
<tr>
<td><strong>D. Theory of Equations</strong></td>
<td>11, 16</td>
</tr>
<tr>
<td>20.00%</td>
<td></td>
</tr>
<tr>
<td>1. Solving rational equations</td>
<td></td>
</tr>
<tr>
<td>2. Synthetic division</td>
<td></td>
</tr>
<tr>
<td>3. Remainder Theorem, Factor Theorem, the Fundamental Theorem of Algebra, and Conjugate Roots Theorem (over the complex numbers)</td>
<td></td>
</tr>
<tr>
<td>4. Partial Fraction Decomposition</td>
<td></td>
</tr>
<tr>
<td>5. Binomial Theorem</td>
<td></td>
</tr>
<tr>
<td>6. Upper and Lower Bound Theorem, the Location Theorem, and Descartes’ Rules of Signs (optional*)</td>
<td></td>
</tr>
<tr>
<td><strong>E. System of Equations</strong></td>
<td>17, 18</td>
</tr>
<tr>
<td>15.00%</td>
<td></td>
</tr>
<tr>
<td>1. Solving systems of linear equations and inequalities</td>
<td></td>
</tr>
<tr>
<td>2. Classifying the consistency of the systems and the dependency of the equations</td>
<td></td>
</tr>
<tr>
<td>3. Gaussian elimination and Cramer's Rule</td>
<td></td>
</tr>
<tr>
<td>4. Solving systems of nonlinear equations and inequalities</td>
<td></td>
</tr>
<tr>
<td><strong>F. Sequences and Series.</strong></td>
<td>20</td>
</tr>
<tr>
<td>5.00%</td>
<td></td>
</tr>
<tr>
<td>1. Sequences</td>
<td></td>
</tr>
<tr>
<td>2. Series</td>
<td></td>
</tr>
</tbody>
</table>

Enrichment topics related to the study of MATH M05 also may be presented by the instructor if time allows, such as (1) matrices and determinants, (2) combinatorics and probability theory. Additional optional topics can be covered if time allows, but may be omitted without loss of continuity in the mathematics program.
IV. TYPICAL ASSIGNMENTS
A. Writing assignments

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

1. stating the answer to a mathematical problem in any of various forms, such as stating the answer to an inequality in interval notation or set builder notation.

2. writing the interpretation of an answer to a mathematical problem, such as the meaning of the solution to an exponential equation, with proper labeling of units.

3. writing a short answer explaining the meaning of mathematical terms, such as the difference between relation, function, and one-to-one function.

B. Appropriate outside assignments

Appropriate outside assignments are required. Possible assignments may include, but are not limited to:

1. individual or group assignments, such as viewing diagrams and graphs in textbooks illustrating the various shapes of graphs, such as those of exponential, logarithmic, polynomial or rational functions.

2. additional problem sets assigned as homework from the book, such as practice on finding roots and asymptotes of rational functions, or practice on determining all complex roots of a quadratic function.

3. graded assignments, such as problem sets on solving linear systems in two variables by elimination and substitution, or problem sets on determining all solutions to logarithmic equations and eliminating extraneous solutions.

C. Critical thinking assignments

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

1. compare and contrast methods of solving a mathematical problem, such as determining whether to factor, complete the square or apply the quadratic formula to solve a quadratic equation.

2. describe and analyze the steps in solving a problem, such as identifying and labeling the several steps in solving a linear system in three variables, using Gaussian elimination.

3. interpret and describe the meaning of the solution to a mathematical application problem, such as an answer representing either time, an amount of money, or an interest rate in a compound interest application problem solved by using logarithms.

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)

Review material from previous topics as related to the current topic; provide detailed step-by-step examples; provide practice problems to develop proper mathematical skills and techniques; provide opportunities for student interaction for questions and answers; use projects and/or group work to enhance student understanding of the concepts; and discuss application problems, such as use of logarithms and exponents applied to biological models or financial examples using exponential functions and logarithms.

Optional Field Trips

Required Field Trips

VI. METHODS OF EVALUATION

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

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

Quizzes and/or graded work will be used to evaluate students for the critical thinking skills needed to solve math problems.

Problems must require students to demonstrate analytic skills and the step-by-step details required for the solution.

VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS


VIII. STUDENT MATERIALS FEES

- No
- Yes
IX. PARALLEL COURSES

<table>
<thead>
<tr>
<th>College</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Santa Cruz</td>
<td>MATH 2</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>CSU Fullerton</td>
<td>Math 115</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>CSU San Bernardino</td>
<td>Math 110</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>Santa Monica College</td>
<td>MATH 4</td>
<td>College Algebra for STEM</td>
<td>4</td>
</tr>
<tr>
<td>Las Positas College</td>
<td>MATH 30</td>
<td>College Algebra for STEM</td>
<td>4</td>
</tr>
<tr>
<td>Ventura College</td>
<td>MATH V04</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>Oxnard College</td>
<td>MATH R115</td>
<td>College Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

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 OR the equivalent.

XI. ARTICULATION INFORMATION

A. Title V Course Classification:
   1. This course is designed to be taken either:
      - [ ] Pass/No Pass only (no letter grade possible); or
      - [X] Letter grade (P/NP possible at student option)
   2. Degree status:
      - Either [X] Associate Degree Applicable; or [ ] 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: [X] No: [ ] 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
      - [X] 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: [X] No: [ ]
2. If YES do you recommend this course for inclusion on the CSU General Education list?
   Yes: [X] No: [ ] If YES, which area(s)?
   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: [X] No: [ ]

   2. If YES do you recommend this course for the Intersegmental General Education Transfer Curriculum (IGETC)? Yes: [X] No: [ ]

   IGETC Area 1: English Communication
   [ ] English Composition
   [ ] Critical Thinking-English Composition
   [ ] Oral Communication

   IGETC Area 2: Mathematical Concepts and Quantitative Reasoning
   [X] 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 (non-sequence)
   [ ] Physical Science Lecture only (non-sequence)
   [ ] Biological Science
A. Sequential course within a discipline.

B. Standard Prerequisite or Corequisite required by universities.
   - CSU Long Beach; CSU Stanislaus; CSU Bakersfield

C. Corequisite is linked to companion lecture course.

D. Prerequisite or Corequisite is authorized by legal statute or regulation.
   Code Section: ___________

E. Prerequisite or Corequisite is necessary to protect the students' health

IGETC Area 6: Language other than English

A. Languages other than English (UC Requirement Only)
B. U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)
C. 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:
   Use of textbooks on reserve. Use of the Library's print and online resources to supplement application problems by researching models in biology, economics, engineering, sociological studies, and other models that require use of algebraic computations, such as using exponents and logarithms.

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

Requisite Justification for MATH M03

A. Sequential course within a discipline.

X  B. Standard Prerequisite or Corequisite required by universities.
   - CSU Long Beach; CSU Stanislaus; CSU Bakersfield

C. Corequisite is linked to companion lecture course.

D. Prerequisite or Corequisite is authorized by legal statute or regulation.
   Code Section: ___________

E. Prerequisite or Corequisite is necessary to protect the students' health
- and safety.

☐ F. Computation or communication skill is needed.

☐ G. Performance courses: Audition, portfolio, tryouts, etc. needed.

or

Requisite Justification for MATH M03B

☐ A. Sequential course within a discipline.

☒ B. Standard Prerequisite or Corequisite required by universities.

   CSU Long Beach ; CSU Stanislaus ; CSU Bakersfield

☐ C. Corequisite is linked to companion lecture course.

☐ D. Prerequisite or Corequisite is authorized by legal statute or regulation.

   Code Section: __________

☐ E. Prerequisite or Corequisite is necessary to protect the students' health and safety.

☐ F. Computation or communication skill is needed.

☐ G. Performance courses: Audition, portfolio, tryouts, etc. needed.

or

Requisite Justification for High School Algebra II

☒ A. Sequential course within a discipline.

☐ B. Standard Prerequisite or Corequisite required by universities.

☐ C. Corequisite is linked to companion lecture course.

☐ D. Prerequisite or Corequisite is authorized by legal statute or regulation.

   Code Section: __________

☐ E. Prerequisite or Corequisite is necessary to protect the students' health and safety.
F. Computation or communication skill is needed.

G. Performance courses: Audition, portfolio, tryouts, etc. needed.

or

Requisite Justification for placement as determined by the college's multiple measures assessment process

A. Sequential course within a discipline.

B. Standard Prerequisite or Corequisite required by universities.

C. Corequisite is linked to companion lecture course.

D. Prerequisite or Corequisite is authorized by legal statute or regulation.
   Code Section: _________

E. Prerequisite or Corequisite is necessary to protect the students' health and safety.

F. Computation or communication skill is needed.

G. Performance courses: Audition, portfolio, tryouts, etc. needed.

XIV. WORKPLACE PREPARATION

MATH M05: Not Applicable

XV. DISTANCE LEARNING COURSE OUTLINE ADDENDUM

1. Mode of Delivery

   [ ] Online (course will be delivered 100% online)
   [X] Online with onsite examinations (100% of the instruction will occur online, but examinations and an orientation will be scheduled onsite)
   [X] Online/Hybrid (a percentage of instruction will be held online and the remaining percentage of instruction will be held onsite)

   [ ] Lab activities will be conducted onsite

   [ ] Televideo (Examinations and an orientation will be held onsite)

   [ ] Teleconference

   [ ] Other

2. Need/Justification
Improve general student access.

3. Describe how instructors teaching this course will ensure regular, effective contact with and among students.

Using the Course Management System (CMS) adopted by VCCCD, instructors may engage students using the following communication activities:

- Provide students with an opportunity to ask questions of fellow students and the instructor using the "discussion forum" tool provided by the CMS.
- Contact students via email within the CMS, by campus email, and/or MyVCCCD.
- Meet with students for study sessions and online office hours using an online communication tool like CCCConfer utilizing Blackboard, where instructors and students may speak with one another using VoIP or phone, and instructors may write the problems for all to see using an online whiteboard. These sessions may be archived so that students who were not able to attend may watch the session at a later time.
- Provide students with an online schedule of class events using the "calendar" tool in the online CMS.
- Use the "announcement" tool to remind students of important assignments and due dates.

4. Describe how instructors teaching this course will involve students in active learning.

Instructors may involve students in active learning in the following activities:

- Students may view video lessons and/or text-based lessons for each learning objective (created by an instructor or by a publishing company).
- Students may complete homework on paper and/or using an interactive online homework system provided by a publishing company.
- Students may test their knowledge with interactive online quizzes provided by a publishing company.
- Students may interact with the instructor and classmates using an online discussion forum to ask questions.
- Students may attend online study sessions using a communication tool through CCCConfer.
- Students may submit questions to the instructor by email.
- Instructor may create student groups or group activities using the CMS.

5. Explain how instructors teaching this course will provide multiple methods of content representation.

The following represent the methods by which content may be provided for learning:

- Live tutorials using a communication tool like CCCConfer.
- Instructional Videos
Textbook
Links to online resources that may include video, quizzes, interactive math games, text explanations, and more.

6. Describe how instructors teaching this course will evaluate student performance.

Students will take problem solving exams in a proctored on-ground environment.

Students may be required to do the following assignments:

- Complete practice problems on paper and/or in an online interactive homework system
- Complete regular online quizzes
- Participate in online discussion forums.

XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM

General Education Division of Learning [check all applicable boxes]:

- [ ] Natural Sciences
- [ ] Biological Science
- [ ] Physical Science
- [ ] Social and Behavioral Sciences
- [ ] American History/Institutions
- [ ] Other Social Science
- [ ] Humanities
- [ ] Fine or Performing Arts
- [ ] Other Humanities
- [x] Language and Rationality
- [ ] English Composition
- [x] Communication and Analytical Thinking
- [ ] Health/Physical Education
- [ ] Ethnic/Women's Studies

Check either Option 1 or Option 2

- [x] OPTION #1: Moorpark College has already received approval from the CSU and/or UC systems for this course to fulfill a GE requirement. Note: This option applies only to technical revisions and updated courses.
- [ ] OPTION #2: Moorpark College has not received approval from the CSU and/or UC systems for this course to fulfill a GE requirement. This option applies to all new and substantively revised courses.

XVII. STUDENT MATERIALS FEE ADDENDUM

MATH M05: Not Applicable
XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041
   MATH M05: Not Applicable

XIX. CURRICULUM APPROVAL
   Course Information:
      Discipline: MATHEMATICS
      Discipline Code and Number: MATH M05
      Course Revision Category: Substantial Course Revision

   Course Proposed By:
      Originating Faculty Phillip Abramoff 11/12/2018
      Faculty Peer: Rena Petrello 11/14/2018
      Curriculum Rep: Daniel Rubinstein 11/13/2018
      Department Chair: Phillip Abramoff 11/12/2018
      Division Dean: Lisa Putnam 11/15/2018

   Approved By:
      Curriculum Chair: Jerry Mansfield 12/17/2018
      Executive Vice President: __________
      Articulation Officer: Letrishia Mai 12/05/2018
      Librarian: Mary LaBarge 12/05/2018

   Implementation Term and Year: Fall 2019

   Approval Dates:
      Approved by Moorpark College Curriculum Committee: 12/11/2018
      Approved by Board of Trustees (if applicable): 02/19/2019
      Approved by State (if applicable): 02/22/2019