COLLEGE OF THE DESERT

Course Code MATH-070

Course Outline of Record

1. Course Code: MATH-070
2. a. Long Course Title: Arithmetic
   b. Short Course Title: ARITHMETIC
3. a. Catalog Course Description:
   This is a course in the basic operations of arithmetic. Topics include adding, subtracting, multiplying, and dividing rational numbers, with an emphasis on whole numbers, integers, and rational numbers written in fraction form. Additional emphasis includes memorization of the basic number facts.
   b. Class Schedule Course Description:
   This course covers adding, subtracting, multiplying, and dividing rational numbers.
   c. Semester Cycle (*if applicable*): N/A
   d. Name of Approved Program(s):
4. Total Units: 2.00 Total Semester Hrs: 54.00
   Lecture Units: 1.5 Semester Lecture Hrs: 27.00
   Lab Units: 0.5 Semester Lab Hrs: 27.00
   Class Size Maximum: 35 Allow Audit: No
   Repeatability No Repeats Allowed
   Justification 0
5. Prerequisite or Corequisite Courses or Advisories:
   Course with requisite(s) and/or advisory is required to complete Content Review Matrix (CCForm1-A)
   Advisory: ENG 061
6. Textbooks, Required Reading or Software: *(List in APA or MLA format.)*
   a. Martin-Gay (2012). *Basic College Mathematics with Early Integers* (2nd/e). Pearson.
   College Level: No
   Flesch-Kincaid reading level: 8.2
7. Entrance Skills: *Before entering the course students must be able:*

   a.
   Demonstrate an 8th grade vocabulary proficiency.

   - ENG 061 - Demonstrate the ability to read and respond in writing beyond the literal interpretation of the text.

   b.
   Read at an 8th grade level with 80% comprehension.

   - ENG 061 - Demonstrate the ability to read and respond in writing beyond the literal interpretation of the text.

8. Course Content and Scope:

   Lecture:

   1. Basic number facts.
   2. Addition, subtraction, multiplication, and division of whole numbers, integers, and rational numbers in fractional form.
   3. Natural number exponents and the order of operations.
   4. Rounding and estimation.
   5. Addition and subtraction of fractions including those with unlike denominators.
   6. Determine the perimeter, area, and volume of basic geometric shapes.
   7. Basic applications using these concepts and skills.

Lab: *(if the "Lab Hours" is greater than zero this is required)*

1. Participate in discussion of lectured material through question and answer format to improve understanding of new concepts.
2. Participate in skill lab by working on either paper or web based worksheets to practice skills learned in lectures.
3. Receive academic assistant from instructor, ISAs and tutors on individual basis.

9. Course Student Learning Outcomes:

1. Demonstrate number sense, which is characterized by the ability to judge relative sizes of numbers, perform computations with numbers in different representations, and assess the reasonableness of results.
2. Use the information contained in application problems to identify and execute methods of solution that involve arithmetic skills, and evaluate the reasonableness of the results obtained.

10. Course Objectives: *Upon completion of this course, students will be able to:*

a. Demonstrate proficiency in basic number facts (addition, subtraction, multiplication, division).
b. Compute using the four basic operations of addition, subtraction, multiplication, and division on the whole numbers, mixed numbers, integers, and fractions.
c. Compute the value of expressions containing natural number exponents.
d. Apply the basic operations to solve application problems including those involving perimeter and area of basic geometric shapes.
e. Apply the order of operations to simplify expressions.
f. Use rounding and estimation skills to solve problems.
g. Comprehend the concept of a fraction as a part of a whole.
h. Convert between improper fractions and mixed numbers.
i. Apply prime factorization to simplify fractions and find least common multiples.
j. Use the fundamental property of fractions and prime factorizations to write equivalent fractions.

11. Methods of Instruction: *(Integration: Elements should validate parallel course outline elements)*
    a. Laboratory
    b. Lecture

Other Methods:

Teamwork; Discussion, to review, analyze, and evaluate various methods of solution; Skills lab participation

12. Assignments: *(List samples of specific activities/assignments students are expected to complete both in and outside of class.)*

In Class Hours: 54.00

Outside Class Hours: 54.00

a. In-class Assignments

1. Attend classroom lectures and take notes,
2. Attend and participate in lab,
3. Participate in discussion groups to review, analyze, diagnose, and evaluate various methods of solution,
4. Complete examinations involving problems that require the application of studied principles and skills to new situations as well as problems that mimic those done on homework and in class.

b. Out-of-class Assignments

1. Read the textbook and any supplementary materials.
2. Complete daily assigned homework and complete pre-tests.
3. Participate in discussion groups to review, analyze, diagnose, and evaluate various methods of solution used on homework.

13. Methods of Evaluating Student Progress: *The student will demonstrate proficiency by:*

- Written homework
- Computational/problem solving evaluations
- Mid-term and final evaluations
- Student participation/contribution

14. Methods of Evaluating: Additional Assessment Information:

15. Need/Purpose/Rationale -- *All courses must meet one or more CCC missions.*
PO-GE C4.b - Language & Rationality (Communication & Analytical Thinking)
Gather, assess, and interpret relevant information.
Apply logical and critical thinking to solve problems; explain conclusions; and evaluate, support, or critique the thinking of others.
IO - Scientific Inquiry
Analyze quantitative and qualitative information to make decisions, judgments, and pose questions.
IO - Global Citizenship - Scientific & Technological Literacy
Utilize quantitative expression in a variety of contexts. These would include units of measurement, visual representations, and scales and distributions.
Synthesize, interpret, and infer, utilizing information, data, and experience to solve problems, innovate, and explore solutions.

16. Comparable Transfer Course

University System	Campus	Course Number	Course Title	Catalog Year

17. Special Materials and/or Equipment Required of Students:

18. Materials Fees: ☐ Required Material?

Material or Item	Cost Per Unit	Total Cost

19. Provide Reasons for the Substantial Modifications or New Course:

Modify English advisory

20. a. Cross-Listed Course *(Enter Course Code)*: *N/A*
b. Replacement Course *(Enter original Course Code)*: MATH-066,MATH-067

21. Grading Method *(choose one)*: Letter Grade Only

22. MIS Course Data Elements
a. Course Control Number [CB00]: CCC000517139
b. T.O.P. Code [CB03]: 170100.00 - Mathematics, General
c. Credit Status [CB04]: C - Credit - Not Degree Applicable
d. Course Transfer Status [CB05]: C = Non-Transferable
e. Basic Skills Status [CB08]: 1B = Course is a basic skills course
f. Vocational Status [CB09]: Not Occupational
g. Course Classification [CB11]: Y - Credit Course
h. Special Class Status [CB13]: N - Not Special
i. Course CAN Code [CB14]: *N/A*
j. Course Prior to College Level [CB21]: D = 4 Levels Below
k. Course Noncredit Category [CB22]: Y - Not Applicable
l. Funding Agency Category [CB23]: Y = Not Applicable
m. Program Status [CB24]: 2 = Stand-alone

Name of Approved Program *(if program-applicable)*: *N/A*
Attach listings of Degree and/or Certificate Programs showing this course as a required or a restricted elective.)

23. Enrollment - Estimate Enrollment
    First Year: 450
    Third Year: 450

24. Resources - Faculty - Discipline and Other Qualifications:
    a. Sufficient Faculty Resources: Yes
    b. If No, list number of FTE needed to offer this course: *N/A*
25. Additional Equipment and/or Supplies Needed and Source of Funding.
    N/A
26. Additional Construction or Modification of Existing Classroom Space Needed. *(Explain:)*
    N/A
27. FOR NEW OR SUBSTANTIALLY MODIFIED COURSES
    Library and/or Learning Resources Present in the Collection are Sufficient to Meet the Need of the Students Enrolled in the Course: Yes
28. Originator John Learned Origination Date 10/20/17