

Course Outline of Record

1. Course Code: MATH-370D
2. a. Long Course Title: Arithmetic of Integers-Module 2
b. Short Course Title: Integers II
3. a. Catalog Course Description:
This is a course in the basic operations of arithmetic of integers. Topics include multiplying and dividing of integers; finding quotient and remainder in a division problem; and applying integers to real life situations. Additional emphasis includes order of operations on integers and natural number exponents with integer bases.
b. Class Schedule Course Description:
This course will focus on multiplying and dividing of integers with applications to real life situations.
c. Semester Cycle (if applicable): N/A
d. Name of Approved Program(s):
 - INTEGERS Certificate of Competency
4. Total Units: 0 Total Semester Hrs: 1.50-18.00
Lecture Units: 0 Semester Lecture Hrs: 0
Lab Units: 0 Semester Lab Hrs: 1.50-18.00
Class Size Maximum: 70 Allow Audit: No
Repeatability Noncredit - Unlimited
Justification 0
5. Prerequisite or Corequisite Courses or Advisories:
Course with requisite(s) and/or advisory is required to complete Content Review Matrix (CCForm I-A)
Advisory: MATH 370A with a minimum grade of P and
Advisory: MATH 370B with a minimum grade of P and
Advisory: MATH 370C with a minimum grade of P
6. Textbooks, Required Reading or Software: *(List in APA or MLA format.)*
 - a. Martin-Gay (2014). Basic College Mathematics with Early Integers (3rd/e). Pearson. ISBN: 9780321922342
College Level: No
Flesch-Kincaid reading level: N/A
 - b. Department of Math, College of the Redwoods (2013). Prealgebra Textbook Department of Math College of the Redwoods.
College Level: No
Flesch-Kincaid reading level: N/A
7. Entrance Skills: *Before entering the course students must be able:*
 - a.
Demonstrate proficiency in basic whole number facts such as addition, subtraction, multiplication and division of whole numbers.
 - MATH 370B - Demonstrate proficiency in basic whole number facts such as multiplication and division of whole numbers, multiplication table, division criteria, and prime factorization of whole numbers.
 - MATH 370A - Demonstrate proficiency in basic whole number facts such as addition and subtraction of whole numbers.
 - b.
Compute using the basic operations of addition, subtraction, multiplication and division on the whole numbers.

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- MATH 370B - Compute using the basic operations of multiplication and division on the whole numbers.
- MATH 370A - Compute using the basic operations of addition and subtraction on the whole numbers.

c.

Compute the value of expressions containing natural number exponents with whole number bases.

- MATH 370B - Compute the value of expressions containing natural number exponents with whole number bases.

d.

Apply the order of operations to simplify expressions involving whole numbers.

- MATH 370B - Apply the order of operations to simplify expressions involving whole numbers.

e.

Apply the basic operations to solve application problems including those involving perimeter, area and volume of basic geometric shapes.

- MATH 370B - Apply the basic operations to solve application problems including those involving area and volume of basic geometric shapes.
- MATH 370A - Apply the basic operations to solve application problems including those involving perimeter of basic geometric shapes.

f.

Demonstrate proficiency in basic number facts such as addition and subtraction of integers.

- MATH 370C - Demonstrate proficiency in basic number facts such as addition and subtraction of integers.

g.

Compute the distance between two integers using absolute value.

- MATH 370C - Compute the distance between two integers using absolute value.

8. Course Content and Scope:

Lecture:

none

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

1. Complete self-pace lab assignments at mastery level.
2. Participate in skill lab by working on either paper or web based worksheets to practice skills learned in textbook.
3. Receive academic assistant from instructor, ISAs and tutors on individual basis.
4. Complete and pass timed final exam.

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 integer number facts such as multiplication and division of integers.
- b. Compute using the basic operations of multiplication and division on the integers.

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- c. Compute the value of expressions containing natural number exponents with integer bases.
- d. Apply the order of operations to simplify expressions involving integers.
- e. Apply the basic operations of multiplication and division of integers to solve application problems including those involving area and volume of basic geometric shapes.

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

- a. Demonstration, Repetition/Practice
- b. Laboratory
- c. Technology-based instruction
- d. Tutorial

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: 18.00

Outside Class Hours: 9.00

a. In-class Assignments

1. Complete lab assignments,
2. Participate in discussion groups to review, analyze, diagnose, and evaluate various methods of solution,
3. 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 lab assignments.

b. Out-of-class Assignments

Read the textbook and any supplementary materials.

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

- Self-paced testing
- Computational/problem solving evaluations
- Mid-term and final evaluations

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)

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.

16. Comparable Transfer Course

University System	Campus	Course Number	Course Title	Catalog Year
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17. Special Materials and/or Equipment Required of Students:

A computer lab with 70 computers is needed.

18. Materials Fees: Required Material?

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Material or Item	Cost Per Unit	Total Cost
19. Provide Reasons for the Substantial Modifications or New Course:		
This course would address the students who place into the lower part of Math-70 and need more time to develop foundational numeracy skills in integers.		
20. a. Cross-Listed Course (Enter Course Code): <i>N/A</i> b. Replacement Course (Enter original Course Code): <i>N/A</i>		
21. Grading Method (choose one): <u>Pass/No Pass Only</u>		
22. MIS Course Data Elements		
a. Course Control Number [CB00]: <u>CCC000580310</u>		
b. T.O.P. Code [CB03]: <u>170100.00 - Mathematics, General</u>		
c. Credit Status [CB04]: <u>N - Noncredit</u>		
d. Course Transfer Status [CB05]: <u>C = Non-Transferable</u>		
e. Basic Skills Status [CB08]: <u>1B = Course is a basic skills course</u>		
f. Vocational Status [CB09]: <u>Not Occupational</u>		
g. Course Classification [CB11]: <u>K - Other Noncredit Enhanced Funding</u>		
h. Special Class Status [CB13]: <u>N - Not Special</u>		
i. Course CAN Code [CB14]: <i>N/A</i>		
j. Course Prior to College Level [CB21]: <u>E = 5 Levels Below</u>		
k. Course Noncredit Category [CB22]: <u>C - Elementary and Secondary Basic Skills</u>		
l. Funding Agency Category [CB23]: <u>Y = Not Applicable</u>		
m. Program Status [CB24]: <u>1 = Program Applicable</u>		
Name of Approved Program (if program-applicable): <u>INTEGERS</u>		
<i>Attach listings of Degree and/or Certificate Programs showing this course as a required or a restricted elective.)</i>		
23. Enrollment - Estimate Enrollment		
First Year: <u>450</u>		
Third Year: <u>450</u>		
24. Resources - Faculty - Discipline and Other Qualifications:		
a. Sufficient Faculty Resources: <u>Yes</u>		
b. If No, list number of FTE needed to offer this course: <i>N/A</i>		
25. Additional Equipment and/or Supplies Needed and Source of Funding.		
A computer lab with 70 computers is needed.		
26. Additional Construction or Modification of Existing Classroom Space Needed. (Explain:)		
<i>N/A</i>		
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: <u>Yes</u>		
28. Originator <u>Thang Le</u> Origination Date <u>08/25/16</u>		