Fond du Lac Tribal and Community College
COURSE OUTLINE FORM

Updated 11/25/14

Please return this form to the college vice president of academic affairs and the chairperson of the Academic Affairs and Standards Council (AASC)

1. Prepared by: _____

2. Date submitted: _____

3. Date approved: _____   Date revised ___02/25/15___

4. Department/discipline: ___Mathematics_____

5. Department(s) endorsement(s): _____
      (Signatures of the person(s) providing the endorsement are required.)

6. Course Title: ___Mathematics Concepts_____

   Abbreviated course title (25 characters or less): _____

7. Course Designator:__MATH_____   8. Course Level: 0010

9. Number of Credits: Lecture ____3_____ Lab _____

10. Control Number (on site) ___20_____   Control Number (online) _____

11. Catalog/Course description:

   In-depth study of basic mathematics and pre-algebra skills. Topics include operations and principles using whole numbers, fractions, decimals, percents, and integers; solutions of first degree equations; exponents, applications and graphing.

12. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses
   Prerequisite(s):
   Co-requisite:

13. **Course Materials** (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).

   1) Textbook: One suitable textbook is <u>Prealgebra</u>, 4th Edition, Aufmann/Barker/Lockwood
   2) scientific calculator. A graphing calculator may be useful for future courses, but it is not used in this course.

14. **Course Content** (Provide an outline of major topics covered in course)

1. Whole Numbers
     a. Operations
     b. Exponents
     c. Prime Numbers
     d. Application Problems
2. Fractions
     a. Least Common Multiple/Greatest Common Factor
     b. Operations

c. Exponents
d. Conversion
e. Application Problems
3. Decimals
    a. Operations
    b. Conversion/Comparison
    c. Application Problems
4. Ratio & Proportion
5. Percents
    a. Conversion
    b. Equations
    c. Application Problems
6. Rational Numbers
    a. Operations
    b. Absolute Value
    c. Application Problems
7. Pre-Algebra Topics
    a. Variable Expressions
    b. Equations
    c. Translating Verbal to Mathematical Expressions
    d. Application Problems
    e. Exponents

15. **Learning Goals, Outcomes, and Assessment**

At FDLTCC we have 4 Competencies Across the Curriculum (CAC) areas. They are as follows:

A. Information Literacy (the ability to use print and/or non-print tools effectively for the discovery, acquisition, and evaluation of information)

B. Ability to Communicate (the ability to listen, read, comprehend, and/or deliver information in a variety of formats.)

C. Problem Solving (the ability to conceptualize, apply, analyze, synthesize, and/or evaluate information to formulate and solve problems.)

D. Culture (knowledge of Anishinaabe traditions and culture, knowledge of one's own traditions and culture, knowledge of others' traditions and cultures, culture of work, culture of academic disciplines and/or respect for global diversity.)

Course learning outcomes will fulfill the identified competencies

Course Learning Outcomes:

Upon completion of this course, student will be able to:

1. Identify and use key terms, symbols, and properties of numbers. (B,C)

2. Apply, analyze, and evaluate information to solve problems using basic skills and operations with the real number system. (C)

3. Translate and solve application problems applying basic mathematics skills. (A,B,C)

4. Identify formulas and use equation solving process. (A, B,C)

16. **Minnesota Transfer Curriculum (MnTC):** If this course fulfills an MnTC goal area, state the goal area and list the goals and outcomes below:

See www.mntransfer.org

Goal Area(s): _____

Goal and Outcomes: