

COURSE IMPLEMENTATION DATE:	March 1992
COURSE REVISED IMPLEMENTATION DATE:	January 2002
COURSE TO BE REVIEWED:	January 2006
(Four years after implementation date)	(MONTH YEAR format)

OFFICIAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.

Shaded headings are subject to change at the discretion of the department and the material will vary - see course syllabus available from instructor

FACULTY/DEPARTMENT:	MATHEMATICS & STATISTICS	
MATH 105		4
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
MATH FOR THE ELEMENTARY SCHOOL TEACHER		
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

It has been recognized by various study groups that if teachers are not at ease with mathematics, their resulting fears and prejudices are communicated to the students. This course is designed to provide a direct experience of mathematics and to allow the students to explore their reasoning strategies and gain greater confidence in their mathematical abilities. Understanding of the pertinent subject material is essential to effective teaching. It must be stressed that MATH 105 is a mathematics course aimed at developing mathematical ability and is not a course in the methods of teaching. Topics include strategies in problem solving, sets and their applications, numeration systems, properties of real numbers and their subsets, number theory and plane geometry.

PREREQUISITES: Principles of Math 11 with at least a C, or MATH 085 with at least a C, or Applications of Math 11 with at least a C+.

COREQUISITES: None

SYNONYMOUS COURSE(S)	SERVICE COURSE TO:
(a) Replaces: N/A <i>(Course #)</i>	<i>(Department/Program)</i>
(b) Cannot take: N/A for further credit. <i>(Course #)</i>	<i>(Department/Program)</i>

TOTAL HOURS PER TERM: 75	TRAINING DAY-BASED INSTRUCTION	
STRUCTURE OF HOURS:	LENGTH OF COURSE:	
Lectures: 75 Hrs	HOURS PER DAY:	
Seminar: Hrs		
Laboratory: Hrs		
Field Experience: Hrs		
Student Directed Learning: Hrs		
Other (Specify): Hrs		

MAXIMUM ENROLLMENT:	36
EXPECTED FREQUENCY OF COURSE OFFERINGS:	Fall and Winter semesters
WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	<input type="checkbox"/> Yes <input type="checkbox"/> No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

AUTHORIZATION SIGNATURES:

Course Designer(s): L. Riva/ J. Cannon	Chairperson: N/A (<i>Curriculum Committee</i>)
Department Head: Greg Schlitt	Dean: J. Snodgrass
PAC Approval in Principle Date:	PAC Final Approval Date: November 28, 2001

LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:

The successful student will be able to:

1. Perform the necessary computations in order to demonstrate an understanding of the basic laws of arithmetic and the properties of geometry
2. Use appropriate problem-solving strategies in order to structure clear and concise solutions to problems related to the elementary school curriculum
3. Evaluate mathematical materials related to the elementary school curriculum

This course is intended to prepare students for the PDP program.

METHODS:

Lectures are balanced with problem sessions and group activities. Evaluation will include tests, quizzes, assignments, and a three-hour comprehensive exam.

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check :) Yes No

METHODS OF OBTAINING PLAR:

Course Challenge

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

The text is chosen by a departmental curriculum committee.

Recent text:

Musser, Burger, Peterson, *Mathematics for Elementary Teachers*, 5th Ed., Wiley, 2000

SUPPLIES / MATERIALS:

Compass and Protractor

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Assignments, Quizzes, Projects	20%
Tests	40%
Final Exam	40%

A student must achieve at least 40% on the final exam in order to receive credit for this course.

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

Patters and Problem Solving Strategies
Sets and Venn Diagrams
Whole Number Operations
Numeration Systems
Algorithms in other Bases
Primes, Composites
Fractions, Decimals, Ratio and Proportion and Percent
Operations with Integers, Rational Numbers and Irrational Numbers
Geometric Properties
Measurement including Perimeter and Area

Congruence and Similarity
Transformations and Tessellations