

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	MAT 0002
COURSE TITLE:	Basic Mathematics
PREREQUISITE(S):	None
COREQUISITE(S):	None
CREDIT HOURS:	4
CONTACT HOURS/WEEK:	4
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	4
Laboratory:	
Other _____:	
FACULTY WORKLOAD POINTS:	4
STANDARDIZED CLASS SIZE ALLOCATION:	20

CATALOG COURSE DESCRIPTION:

(This course does not apply toward the associate's degree)

This course is designed for students who lack the basic skills necessary for success in MAT 0024, Elementary Algebra. The major topics in the course are operations with whole numbers, fractions, and decimals, as well as ratios and proportions, percents, signed numbers and geometry. An introduction to Algebra will also be discussed. Satisfactory completion of this course requires passing the course and the Exit Examination. Eligibility to sit for the Exit Examination is determined by the student having a qualifying grade of "C" or better at the time of the examination. The final course grade is determined by the qualifying course grade and affirmed by a passing score on the Exit Examination.

GRADING METHOD:

Student must have a grade of A, B, C, to be eligible to take the exit examination. The exit examination either affirms the passing grade (A, B,C) or denies it with an "F" grade. After remediation, a student is allowed one retake of the exit examination.

NUMBER OF COURSE ATTEMPTS:

State statute limits a student's enrollment in this course to three attempts. Unless a student officially withdraws before the drop deadline, each registration in this course will count as a semester of enrollment regardless of the grade received. Students may have only two attempts at a college preparatory studies course and pay the in-state tuition rate. After two attempts, students must pay the out-of-state tuition rate or may enroll in adult education courses that provide an alternative to traditional college preparatory instruction.

COLLEGE PREPARATORY ATTENDANCE POLICY:

College Preparatory Studies faculty are required to institute an attendance policy for all college preparatory courses. Faculty has two options:

One: As the minimum, faculty should use the following policy:

"College Preparatory Studies (CPS) students are required to attend classes on a regular basis. Students who miss 9 contact hours or the equivalent of 15% of the CPS will receive failing grade. (at the discretion of the instructor)."

OR

Two: Faculty who prefer a stricter attendance policy may institute their own.

The following guidelines will be used for the implementation of the policy. They are for your information and are not to be listed on your course syllabus:

1. Faculty will include CPS Attendance Policy on all college preparatory syllabi.
2. Faculty will keep an attendance record of all students enrolled in college preparatory courses.
3. Faculty will record absences for students who level change based on the students' first day of enrollment in the new class.
4. Faculty should inform students when they are close to violating the attendance policy.
5. For purposes of the minimum policy, faculty may excuse (or not count) student absences for personal illness requiring hospitalization, death in the family (parent, spouse, children, brothers, or sisters), jury duty, or military duty. Exceptions to this rule should be handled by the faculty on a case-by-case basis with the appropriate dean of liberal arts.
6. Refer to guidelines for sending out attendance warning letters for CPS courses.

SUGGESTED TEXT(S):

Basic College Mathematics, current edition, Tobey, Slater;
Prentice-Hall

Basic College Mathematics, current edition, Martin-Gay;
Prentice-Hall

Basic Mathematics, current edition, Bittinger; Addison-
Wesley

Basic College Mathematics, current edition, Aufmann, Barker,
Lockwood; Houghton Mifflin

Fundamentals of Mathematics, current edition, Van Dyke,
Rogers, Adas; Brooks/Cole

SUGGESTED ELECTRONIC DELIVERY SYSTEM(S): MathZone/ALEKS, McGraw-Hill

My MathLab, Pearson Education (Prentice Hall and Addison Wesley)

IMPLEMENTATION DATE:

Fall Term, 1986 (871)

REVIEW OR MODIFICATION DATE:

Fall Term, 2000 (20011)

Fall Term, 2002 (20031)

Fall Term, 2004 (20051)

Summer Term, 2007 (20073)

Fall Term, 2008 (20091) - Outline Review 2007

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. Operations with Whole Numbers	5
A. Place Value	
1. Reading and Writing Number Statements	
2. Rounding Whole Numbers	
3. Number Properties	
B. Fundamental Operations	
1. Addition	
2. Subtraction	
3. Multiplication	
4. Division	
C. Exponents	
D. Order of Operations	
E. Applications	
II. Operating with Fractions	11
A. Introduction	
B. LCD and Order Relations	
C. Equivalence and Simplification	
D. Fundamental Operations	
1. Addition	
2. Subtraction	
3. Multiplication	
4. Division	
F. Applications	
III. Operating with Decimals	8
A. Place Value	
1. Reading and Writing Number Statements	
2. Rounding Decimals	
3. Decimals to Fractions	
4. Comparing Decimals	
B. Fundamental Operations	
1. Addition	
2. Subtraction	
3. Multiplication	
4. Division	
C. Applications	
IV. Ratios and Proportions	4
A. Simplification of Ratios and Rates	
B. Unit Rates	
C. Solving Proportions	

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
D. Applications	
V. Percents	11
A. Percents to Fractions and Decimals	
B. Three Types of Percent Problems	
1. Percent of a Number when Base and Percentage are Known	
2. Base When Amount and Percentage are Known	
3. Compute Percentage when Base and Rate Are Known	
D. Applications to Percent	
VI. Introduction to Signed Numbers	14
A. Fundamental Operations with Integers	
B. Fundamental Operations with Rational Numbers	
C. Order of Operations	
VII. Introduction to Algebra	5
A. Combining Similar Terms and Order of Operations	
B. Evaluating Algebraic Expressions and Formulas	
C. Solving Simple Linear Equations in One Unknown	
VIII. Geometry (To be discussed with whole numbers, fractions, and decimals)	2
A. Perimeter of Rectangles, Squares, and Triangles	
B. Area of Rectangles, Squares, and Triangles	

*TOPICS NEED NOT BE COVERED IN THE SEQUENCE LISTED.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1	
COURSE PREFIX AND NUMBER: <u>MAT 0002</u>	SEMESTER CREDIT HOURS (CC): <u>4</u> CONTACT HOURS (NCC): _____
COURSE TITLE: <u>Basic Mathematics</u>	

Section 2		
TYPE OF COURSE: (Click on the box to check all that apply)		
<input type="checkbox"/> AA Elective	<input type="checkbox"/> AS Required Professional Course	<input checked="" type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____	<input type="checkbox"/> PSAV	<input type="checkbox"/> Apprenticeship
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

Section 3 (If applicable)		
INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:		
<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input checked="" type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

Section 4					
INTELLECTUAL COMPETENCIES:					
<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input checked="" type="checkbox"/> Quantitative Skills	<input type="checkbox"/> Scientific Method of Inquiry	
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input type="checkbox"/> Information Literacy	<input type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively	

Section 5		
LEARNING OUTCOMES		METHOD OF ASSESSMENT
•	The successful student should be able to:	
•	Appreciate basic mathematics and gain confidence in their ability to learn and use basic mathematics, appropriately	Demonstrated level of confidence and abilities to use basic mathematics while participating in a variety of individual and collaborative class activities, supplemental learning activities, outside assignments, quizzes and tests
•	Understand and perform mathematical operations with whole numbers relating to place value, fundamental operations, exponents, order of operations and applications	Accurate communication about whole numbers and demonstrated proficiency to solve problems using whole numbers
•	Understand and perform mathematical operations with fractions relating to LCD and order relations, equivalence and simplification, fundamental operations and applications	Accurate communication about fractions and demonstrated proficiency to solve problems using fractions
•	Understand and perform mathematical operations with decimals relating to place value, fundamental operations and applications	Accurate communication about decimals and demonstrated proficiency to solve problems using decimals
•	Simplify ratios and rates, determine unit rates, solve proportions and apply the knowledge of ratios and proportions	Accurate communication about proportions and ratios and demonstrated proficiency with related mathematical manipulations
•	Understand and perform mathematical operations with percents and the relationship to fractions and decimals	Accurate communication about percents and demonstrated proficiency solving problems using fractions and decimals

(Section 5 Continued)

Section 5		
LEARNING OUTCOMES		METHOD OF ASSESSMENT
•	Understand the basics of signed numbers and perform fundamental operations with integers and rational numbers and the order of operations	Accurate communication about signed numbers and demonstrated proficiency solving problems with signed numbers
•	Understand and perform mathematical operations related to introductory algebra	Accurate communication about introductory algebra and proficiency to solve simple linear equations
•	Understand geometry in the context of whole numbers, fractions and decimals	Accurate communication about the perimeter of rectangles, squares and triangles

Section 6

Name of Person Completing This Form: Donna Martin, Nancy Eschen, Judy Batson
11/19/2007

Date:

SECTION 7 MUST BE COMPLETED FOR ALL GENERAL EDUCATION COURSES ONLY (exclude AA electives)

Section 7								
	KNOWLEDGE	<i>Primary</i>	<i>Secondary</i>	<i>N/A</i>	VALUE	<i>Primary</i>	<i>Secondary</i>	<i>N/A</i>
A.	Global and Historical Knowledge & Understanding				Intellectual honesty	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Comprehends a general knowledge of the nature, origins and contributions of major civilizations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Curiosity and openness to new ideas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Comprehends the workings and interrelations of personal, business and government economies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Recognition of one's own creative potential	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	• Comprehends political, social and economic systems and their effects upon society	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acceptance of and respect for differences among people and cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.	Cultural and Aesthetic Knowledge and Understanding							
	• Comprehends the contributions of the arts and humanities to the human experience on a personal, national or global level	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Civic Engagement	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	• Comprehends the historical development of the arts and sciences	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lifelong Learning	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Comprehends religious and cultural systems and their effects upon society	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
C.	Human Awareness and Understanding							
	• Comprehends the dynamics of human behavior and the process of increasing self-awareness, growth and development	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	• Comprehends the stages of human development and the dynamics of human relationships in diverse cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	• Comprehends the factors that promote physical, mental and social well-being	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
D.	Mathematics, Science and Technology							
	• Comprehends the basic concepts and investigative processes of the natural sciences	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	• Comprehends the breadth, significance and development of the mathematical sciences	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	• Comprehends the ways science and technology have shaped and continue to reshape human cultures and the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				

Section 8

Name of Person Completing This Form: Donna Martin, Nancy Eschen, Judy Batson

Date: 11/19/2007