

MATH 02

Basic Arithmetic

I. Course Description

Math 02 covers arithmetical principles and computations including whole numbers, fractions, decimals, percents, measurement, graph interpretation, geometric forms, and applications. The course develops the mathematical proficiency necessary for selected curriculum entrance Credits not applicable toward graduation. Lecture 4 hours per week.

II. Prerequisite:

Mathematical Placement Test.

III. Instructional Materials:

Textbook: Basic College Mathematics by Tobey and Slater; 6th edition, 2009.

IV. Overall objectives:

1. Perform operations with whole numbers.
2. Introduce order of operations.
3. Perform operations with signed numbers.
4. Perform operations with rational numbers.
5. Solve proportion and percent problems.
6. Solve word problems.
7. Read and interpret graphs and tables.
8. Introduce square roots.
9. Find area and perimeter of plane figures.

V. Attendance Policy:

You are expected to attend every class section. Mathematics is a comprehensive subject and builds on itself. If you are unable to attend a session, contact the instructor or a classmate to find out what was missed. You are responsible for reading the sections covered that day and completing the assignments as listed on the syllabus.

VI. Supplements

1. Videotapes of lectures of each section in the book are available in the Learning Lab.
2. Computer tutorial and drill software of each section in the book are available in the Math Lab.

VII. Disability Services Policy:

Reasonable accommodations will be made for students with disabilities provided those students have registered with the Office of Disability Services. Present your teacher with the documentation.

**TIDEWATER COMMUNITY COLLEGE
CLASSROOM AND LABORATORY
EMERGENCY PROCEDURES FOR FACULTY**

In the event of a bomb threat, tornado, or fire, students and staff may be asked to evacuate the building or move to a secure location within the building. Evacuation routes for movement to an external location or to a shelter within the building are posted at the front of the room. Students should review the maps and make sure that the exit route and assembly location for the building are clearly understood. If you have a disability that may require assistance during an evacuation, please let your faculty know at the end of the first class.

Math 02: Basic Arithmetic

Text: Basic College Mathematics by Tobey and Slater; 6th edition.

Chapter 1: Whole Numbers

- 1.1 Understanding Whole Numbers
- 1.2 Adding Whole Numbers
- 1.3 Subtracting Whole Numbers
- 1.4 Multiplying Whole Numbers
- 1.5 Dividing Whole Numbers
- 1.6 Exponents and Order of Operations
- 1.7 Rounding and Estimation
- 1.8 Solving Applied Problems Involving Whole Numbers

Chapter 2: Fractions

- 2.1 Understanding Fractions
- 2.2 Simplifying Fractions
- 2.3 Converting between Improper Fractions and Mixed Numbers
- 2.4 Multiplying Fractions and Mixed Numbers
- 2.5 Dividing Fractions and Mixed Numbers
- 2.6 The Least Common Denominator and Creating Equivalent Fractions
- 2.7 Adding and Subtracting Fractions
- 2.8 Adding and Subtracting Mixed Numbers and Order of Operations
- 2.9 Solving Applied Problems Involving Fractions

Chapter 3: Decimals

- 3.1 Using Decimal Notation
- 3.2 Comparing, Ordering, and Rounding Decimals
- 3.3 Adding and Subtracting Decimals
- 3.4 Multiplying Decimals
- 3.5 Dividing Decimals
- 3.6 Converting Fractions to Decimals and Order of Operations
- 3.7 Estimating and Solving Applied Problems Using Decimals

Chapter 4: Ratio and Proportion

- 4.1 Ratios and Rates
- 4.2 The Concept of Proportions
- 4.3 Solving Proportions
- 4.4 Solving Applied Problems Involving Proportions

Chapter 5: Percent

- 5.1 Understanding Percent
- 5.2 Changing Between Percent, Decimals and Fractions
- 5.3a Solving Percent Problems Using Equations
- 5.3b Solving Percent Problems Using Proportions
- 5.4 Solving Applied Percent Problems

Chapter 7: Geometry

- 7.1 Angles
- 7.2 Rectangles and Squares
- 7.3 Parallelograms, Trapezoids, and Rhombuses
- 7.4 Triangles
- 7.5 Square Roots
- 7.6 Pythagorean Theorem
- 7.7 Circles
- 7.8 Volume

Chapter 9: Signed Numbers

- 9.1 Adding Signed Numbers
- 9.2 Subtracting Signed Numbers
- 9.3 Multiplying and Dividing Signed Numbers
- 9.4 Order of Operations with Signed Numbers
- 9.5 Scientific Notation

Math 02 Syllabus

Week	Section	Page	Assignment
1	1.1	9	1-53 every other odd (eoo)
	1.2	20	1-57 eoo
	1.3	31	1-89 eoo
	1.4	45	1-89 eoo
2	1.5	56	1-85 eoo
	1.6	65	1-97 eoo
	1.7	75	1-85 eoo
	1.8	90	1-35 odds
3	Review Test #1		
	2.1	110	1-53 eoo
	2.2	118	1-65 eoo, 85, 87
4	2.3	125	1-73 eoo
	2.4	131	1-33 eoo, 45-55 odd
	2.5	139	1-61 eoo, 69-77 odd
	2.6	152	1-71 eoo
5	2.7	160	1-47 eoo, 55-63 odd
	2.8	168	1-41 eoo, 45-51 odd, 57-69 eoo
	2.9	179	1-21 odd
6	Review Test #2		
	3.1	199	1-57 eoo
	3.2	205	1-61 eoo
7	3.3	212	1-67 eoo
	3.4	221	1-49 eoo
	3.5	231	1-51 eoo
	3.6	240	1-65 eoo
8	3.7	248	1-35 odd
	4.1	265	1-65 eoo, 68
	4.2	272	1-49 eoo, 53
	4.3	282	1-53 eoo
9	4.4	289	1-25 odd
	Review Test #3		
	5.1	307	1-79 eoo

Week	Section	Page	Assignment
10	5.2	316	1-69 eoo, 73-81 odd
	5.3A	324	1-53 eoo
	5.3B	332	1-43 eoo
11	5.4	341	1-29 odd
	7.1	419	1-43 odd
	7.2	429	1-35 odd
	7.3	438	1-29 odd
12	7.4	445	1-37 eoo
	7.5	452	1-29 odd
	7.6	461	1-29 odd
	7.7	471	1-47 eoo
13	7.8	479	1-29 odd
	Review Test #4		
14	9.1	572	1-43 odd, 59-71 odd
	9.2	579	1-53 eoo
	9.3	585	1-63 eoo
	9.4	592	1-35 odd
15	Review for Exam		