

Updated: August 13, 2009

## ARAPAHOE COMMUNITY COLLEGE SYLLABUS

**Course Number:** MAT 030

**Title:** Fundamentals of Mathematics

**Credits:** 2

**Instructor:**

**Phone:**

**E-mail:**

**Office Location (if applicable):**

**Office Hours (if applicable):**

**Important Dates:**

Last day to drop with refund (include date):

Last day to withdraw without refund (include date):

**Catalog Description:**

This course includes the vocabulary, operations on and applications of whole numbers, decimals, and basic fractions and mixed numbers. Optional topics include integers, multiplication and division of fractions and mixed numbers, an introduction to areas, perimeters, and U.S. and metric measurement.

**Prerequisite:** Math Assessment CPT score of 24-56 in the Arithmetic area.

**Co-requisite:** None

**Text:** *Basic College Mathematics, A Real-World Approach*, 3rd edition, by Ignacio Bello, McGraw-Hill

**Required Course Materials:** Text . MathZone software may be required by your instructor.

**Optional Course Materials:** Videotapes for this course are available in the library.

**Calculator:** Calculators are not allowed for this course. Students must be able to perform all related mathematical skills by hand.

**Grading Criteria:**

**Makeup Policy:**

**Attendance Policy:**

**Student Success Center for all ACC students:** Peer and professional tutoring in Room M2720 now includes student tutors, math support, and the Writing Center in one location to provide academic assistance for all your classes.

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ACC math instructors provide help with concepts, homework, online resources and graphing calculator workshops. Students may watch course related videos and DVDs in the library. For information, contact the Student Success Center at 303-797-5669 or email [Mathhelp@arapahoe.edu](mailto:Mathhelp@arapahoe.edu)

Arapahoe Community College provides accommodations to qualified students with disabilities. To request accommodation, contact Disability Services in M2710 or call (303) 797-5937 v/tty.

### **Academic Honesty Statement**

Arapahoe Community College is committed to academic honesty and scholarly integrity. The College can best function and accomplish its mission in an atmosphere of the highest ethical standards.

All members of the College community are expected and encouraged to contribute to such an environment by observing all accepted principles of academic honesty.

Academic dishonesty includes but is not limited to: plagiarism, cheating, fabrication, grade tampering, misuse of computers and other electronic technology, and facilitating academic dishonesty. Those found in violation may also be subject to potential disciplinary sanctions under the

Arapahoe Community College Code of Conduct. **OR “Those found in violation of academic honesty will be subject to the following disciplinary actions: \_(teacher discretion)\_\_\_\_\_.”**

**The safety and security of all our students, faculty, staff and visitors is of the utmost importance to the Campus Police Department. We rely on each of you to be an additional set of ears and eyes to help maintain campus safety. Please be diligent in your efforts to report suspicious or unusual behavior or circumstances to the Campus Police Department. Trust your instincts when something doesn't look, seem or feel right and tell someone. The Campus Police can be reached at 303-797-5800 or in M2600 on the second floor behind Information Central. Additional safety information can be found on the website at <http://www.arapahoe.edu/studentsvcs/campuspolice/index.html>**

**Online Course Evaluations:** As this course nears completion, you will have the opportunity to complete a confidential evaluation of the class online. Login instructions will be sent to your 'student.cccs.edu' e-mail address. Your feedback is important, and ensures that ACC continues to offer quality instruction that meets your needs. Please take time to complete the survey – I appreciate your feedback.

**E-mail Communication:** Effective 1/20/09 electronic correspondence from ACC employees will go to your student email account *only*. When you activate your account you can forward emails to an e-mail account that you already have. To activate your student e-mail account, go to <http://www.arapahoe.edu> and click on the “Activate Student E-mail” link. Questions? Please call 303-797-5621.

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**Contact Information for Learning Support Services**

<b>Library</b>	<b>M2500 303-797-5090</b>
<b>Technical Support</b>	<b>797-5700 x3199</b>
<b>Writing Center</b>	<b>M2855 303-797-5830</b>
<b>Advising/Counseling</b>	<b>M2010 303-797-5651</b>
<b>Instructional Testing Center</b>	<b>M2280 303-797-5993</b>
<b>Bookstore</b>	<b>M1200 303-797-5676</b>
<b>Computer Lab</b>	<b>M1650 303-797-5907</b>
<b>Tutorial Services</b>	<b>M2710 303.797.5669</b>
<b>Career Center</b>	<b>M2025 303-797-5805</b>
<b>eLearning</b>	<b>303-797-5700 x6700</b>

**Topical Outline:**

**I. Whole Numbers**

- 1.1 Standard Numerals
- 1.2 Ordering and Rounding Whole Numbers
- 1.3 Addition
- 1.4 Subtraction
- 1.5 Multiplication
- 1.6 Division
- 1.7 Primes, Factors, and Exponents
- 1.8 Order of Operations and Grouping Symbols
- 1.9 Equations and Problem Solving

**II. Fractions and Mixed Numbers**

- 2.1 Fractions and Mixed Numbers
- 2.2 Equivalent Fractions: Building and Reducing
- 2.3 Multiplication and Division of Fractions and Mixed Numbers
- 2.4 The Least Common Multiple (LCM)
- 2.5 Addition and Subtraction of Fractions
- 2.6 Addition and Subtraction of Mixed Numbers
- 2.7 Order of Operations and Grouping Symbols
  
- 2.8 Equations and Problem Solving

**III. Decimals**

- 3.1 Addition and Subtraction of Decimals
- 3.2 Multiplication and Division of Decimals
- 3.3 Fractions and Decimals

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### 3.4 Decimals, Fractions, and Order of Operations

### 3.5 Equations and Problem Solving

After successful completion of this course the student should be able to:			
No	Competency	Comp Code	Eval Code
1	Demonstrate knowledge and usage of whole numbers.	B	W
2	Demonstrate knowledge and usage of decimals.	B	W
3	Demonstrate knowledge and usage of measurement, area, and perimeter.	B	W
4	Demonstrate knowledge and usage of integers. (optional)	B	W
5	Demonstrate knowledge and usage of fractions and mixed numbers.	B	W

**Competency Code:**

**B = Basic Skill**

**G = General Occupational Skill**

**S = Specific Occupational Skill**

**Evaluation Code:**

**A = Authentic**

**W = Written**

**O = Oral**

**PF = Portfolio**

#### 15 week schedule

Day 1: Go over syllabus	Day 2: 1.1
Day 3: 1.2	Day 4: 1.3
Day 5: 1.4	Day 6: 1.5
Day 7: 1.6	Day 8: 1.7
Day 9: 1.8	Day 10: 1.9
Day 11: Review	Day 12: Chapter 1 Exam
Day 13: 2.1	Day 14: 2.2
Day 15: 2.3	Day 16: 2.4
Day 18: 2.5	Day 19: 2.5
Day 20: 2.6	Day 21: 2.7
Day 22: Review	Day 23: Chapter 2 Exam
Day 24: 3.1	Day 25: 3.2
Day 25: 3.3	Day 26: 3.4

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Day 27: 3.5	Day 28: Chapter 3 Exam
Day 29: Review	Day 30: Final Exam

10 week schedule

Day 1: Syllabus, 1.1	Day 2: 1.2, 1.3
Day 3: 1.4, 1.5	Day 4: 1.6, 1.7
Day 5: 1.8, 1.9	Day 6: Chapter 1 Exam
Day 7: 2.1	Day 8: 2.2
Day 9: 2.3	Day 10: 2.4
Day 11: 2.5	Day 12: 2.6
Day 13: 2.7	Day 14: Chapter 2 Exam
Day 15: 3.1, 3.2	Day 16: 3.3, 3.4
Day 17: 3.5	Day 18: Chapter 3 Exam
Day 19: Review	Day 20: Final Exam

5 week schedule

Day 1: Syllabus, Chapter 1	Day 2: 2.1
Day 3: 2.2, 2.3	Day 4: 2.4, 2.5
Day 5: Midterm Exam	Day 6: 2.6, 2.7
Day 7: 3.1, 3.2	Day 8: 3.3, 3.4
Day 9: 3.5, Review	Day 10: Final Exam

8 week schedule

Day 1: Syllabus, 1.1	Day 2: 1.2, 1.3, 1.4
Day 3: 1.5, 1.6, 1.7	Day 4: 1.8, 1.9
Day 5: Chapter 1 Exam	Day 6: 2.1, 2.2
Day 7: 2.3, 2.4	Day 8: 2.5, 2.6
Day 9: 2.7	Day 10: Chapter 2 Exam
Day 11: 3.1, 3.2	Day 12: 3.3, 3.4
Day 13: 3.5	Day 14: Chapter 3 Exam
Day 15: Review for final	Day 16: Final Exam