

**BOROUGH OF MANHATTAN COMMUNITY COLLEGE**

City University of New York

**Department of Mathematics****Basic Mathematics II****Class hours: 3****MAT 011****Semester:****Credits: 0****Instructor Information:****Name:****Email:****Phone:****Office:****Course Description:**

This is a course in arithmetic skills and the rudiments of algebra. Topics covered include whole numbers, fractions, decimals, percents, proportions, signed numbers, and solving simple linear equations.

**Pre/Co-Requisites:**

Pre-Requisite: ESL 062. Students who score 24 up to 29 on the COMPASS Pre-algebra exam are eligible to take MAT 011.

**Student Learning Outcomes and Assessment:**

<b>Course Student Learning Outcomes</b>	<b>Measurements</b>
1. Students should be able to correctly compute a variety of operations involving real numbers in a number of different formats, including the correct usage of the order of operations.	1. Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.
2. Students should be able to correctly convert between a variety of real number types and formats.	2. Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.
3. Students should be able to make estimates and to check the reasonableness of solutions to calculations and problems involving real numbers.	3. Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.
4. Students should be able to solve applied word problems, including correctly setting up problems and translating between words and algebraic expressions and equations.	4. Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.

**General Education Outcomes and Assessment:**

<b>General Education Learning Outcomes</b>	<b>Measurements</b>
<b>Communication Skills-</b> Students will be able to write, read, listen and speak critically and effectively.	Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.
<b>Quantitative Reasoning-</b> Students will be able to use quantitative skills and the concepts and methods of mathematics to solve problems.	Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.
<b>Information &amp; Technology Literacy-</b> Students will be able to collect, evaluate and interpret information and effectively use information technologies.	Homework, quizzes, online problem assignments, midterm, COMPASS exam, final exam.

### Required Text and Readings:

Geoffrey Akst and Sadie Bragg, *Basic Mathematics through Applications, Third Custom Edition, book package with mymathlab access code*, Pearson Custom Publishing, 2008, ISBN 0558140785.

OR

Stand-alone mymathlab access code with eBook: Geoffrey Akst and Sadie Bragg, *Basic Mathematics through Applications, Third Custom Edition*, Pearson Custom Publishing, 2008, ISBN 032119991X.



**Math Lab Use:** The Math Lab is located in S511. It is dedicated to helping students improve their understanding of mathematics at any level. You will need a valid BMCC student ID to visit the Math Lab. Tutors are available in the Math Lab for free to all BMCC students. The Math Lab has worksheets with practice problems in stock, as well as computer- and video-based tutoring. Your instructor can require you to attend to tutoring in the Math Lab and they can also track how often you visit it and for how long. The Math Lab is typically open any day of the week when BMCC has classes in session; for current hours and more information about the Math Lab, see the webpage at <http://www.bmcc.cuny.edu/mathlab/>.

**Use of Technology:** All students are required to use the **MyMathLab** online courseware system. It contains videos, homework problems, chapter tests and quizzes, step-by-step help, an online version of the textbook, and more. Students can access the online courseware only by buying a **new textbook** that contains a student access card or by buying a **separate access code** from the bookstore or the publisher (at [www.coursecompass.com](http://www.coursecompass.com).) MyMathLab can be accessed on any computer that has internet access, on an iPod, and on some other PDAs/Smartphones.

To register once you have a student access card, or to buy access online:

1. Have your access code from the textbook ready or a credit card to pay for access on the website.
2. Make sure to get the **course ID** for your course from your instructor.
3. Go to [www.coursecompass.com](http://www.coursecompass.com).
4. Under the word “**Students**,” click on Register.



5. Choose “Get Access to a new course,” and hit the  button on the bottom right corner of the page -- you might have to scroll down to find it.
6. Type in the course ID that starts with your instructor’s last name. Click “Find course.”
7. When the new bottom part of the screen appears, if you already have an access code, choose “Access code.” Enter the access code **from your textbook** in the boxes that look like this  
\* Access Code  
 -  -  -  -  -  then click .

If you want to purchase an access code, click “Buy now” and follow the instructions on the screen to complete your purchase.

8. On the next page, choose “I accept,” and on the page after, select, “No, I am a new user.”
9. Enter information about yourself and BMCC (the zip code for BMCC is 10007). Enter the email address you use regularly (it does not have to be your BMCC email address).

Create your own password and username. **It can be any username and password that you want.** Write this username and password in a safe place. **From now on, you will get in by going to [www.coursecompass.com](http://www.coursecompass.com) and clicking on LOG IN under Returning Users.**

**Other Resources:** The following are weblinks to COMPASS materials:

A description of the COMPASS exam: <http://www.bmcc.cuny.edu/testing/CUNYskills/math.html>

Practice COMPASS problems: <http://www.bmcc.cuny.edu/math/studylinks.html>

Practice departmental midterm and final exams:

[http://www.bmcc.cuny.edu/math/instructional\\_materials.jsp](http://www.bmcc.cuny.edu/math/instructional_materials.jsp)

### **Evaluation and Requirements of Students:**

The final grade in this course will be a passing letter grade of C- or higher, or a failing grade of R. To pass the course, the student must pass the COMPASS Pre-Algebra examination with a score of at least 30, pass a departmental final examination with a grade of 70% or higher, and also satisfy any additional criteria stated by the instructor.

During the 7<sup>th</sup> week of classes, students will be required to take the departmental midterm examination. Those students who do not pass the midterm examination with a grade of 70% or better will be required to complete math intervention online before they will be permitted to take the final exam; in order to complete the intervention, students will be required to obtain a score of 75% or higher on all online Intervention Assignments (students may redo assignments until they obtain this score).

Students who qualify to take the final exam will take the test during the 14th week of classes. In order to qualify to take the COMPASS exam, students must pass the departmental final with a grade of 70% or better, and must not be absent for more than 15% of the total class meeting time during the semester (6 hours of class time). Students who do not pass the departmental final exam on their first try will be given a second chance to take the departmental final during the final exam period, and those students who pass the department final on their second try and also meet all attendance requirements will then be permitted to take the COMPASS exam toward the end of the final exam period.

### **College Attendance Policy:**

#### **1. Absences**

At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. For this course, you are allowed four hours of absence (not four days). In the case of excessive absence, the instructor has the option to lower the grade or assign an “F”, “R”, or “WU” grade.

#### **2. Class Attendance**

If you do not attend class at least once in the first three weeks of the course and once in the fourth or fifth weeks, the Office of the Registrar is required to assign a grade of “WU”. Attendance in both regular and remedial courses is mandated by policy of the City University of New York. Instructors are required by New York State law to keep an official record of class attendance.

#### **3. Lateness**

Classes begin promptly at the times indicated in the Schedule of Classes. Arrival in classes after the scheduled starting time constitutes a lateness. Latecomers may, at the discretion of the instructor, incur an official absence.

### **Academic Adjustments for Students with Disabilities:**

Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities. BMCC is committed to providing equal access to all programs and curricula to all students.

### **BMCC Policy on Plagiarism and Academic Integrity Statement:**

Plagiarism is the presentation of someone else’s ideas, words or artistic, scientific, or technical work as one’s own creation. Using the idea or work of another is permissible only when the original author is

identified. Paraphrasing and summarizing, as well as direct quotations require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism.

Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's web site, [www.bmcc.cuny.edu](http://www.bmcc.cuny.edu). For further information on integrity and behavior, please consult the college bulletin (also available online).

**Suggested Schedule:**

Week 1	Whole numbers: adding, subtracting, estimating, multiplying and dividing, area, more applications
Week 2	Exponents, averages, Order of Operations, begin word problems
Week 3	Word Problems; <b>Compass practice and review; Department Quiz 1 on chapter 1: whole numbers;</b> Factors and prime numbers, divisibility rules; Fractions: fraction bars, reducing, mixed numbers, comparing size
Week 4	Fractions: review, and finding an equivalent fraction with a certain denominator; adding and subtracting; adding and subtracting mixed numbers
Week 5	Fractions: review adding and subtracting; multiplying and dividing; multiplying and dividing mixed numbers
Week 6	Fraction Review; <b>Department Quiz 2 on fractions;</b> Decimals: intro, adding, subtracting, multiplying;
Week 7	Decimals: dividing decimals; <b>Department Quiz 3: Decimals;</b> Review for Departmental Midterm Exam; <b>Departmental Midterm Exam: Whole Numbers, Fractions, and Decimals</b>
Week 8	Basic Algebra; Ratio and Proportion
Week 9	Intro to Percents <b>Department Quiz 4: Algebra, Ratio and Proportion, applications of proportions;</b> Percent equations; Percent applications: tax, percent increase and decrease, commission, etc.
Week 10	<b>Compass practice,</b> percent review; Basic Statistics
Week 11	<b>Department Quiz 5: Percents and Basic Statistics</b> Signed Numbers: intro, addition, absolute value, subtraction; multiplication and division; review of order of operations
Week 12	Scientific Notation and integer review
Week 13	<b>Department Quiz 6: Signed Numbers and Scientific Notation;</b> Review and <b>practice exams</b>
Week 14	<b>Department Final Exam;</b> Exam review and results
Week 15	<b>COMPASS Exam; Second try for Dept. Final Exam</b>

<b>Outline of Topics</b>	<b>Pages in Text</b>
Whole Numbers	1 – 84
<ul style="list-style-type: none"> <li>• Writing, rounding, adding, subtracting, multiplying, and dividing whole numbers.</li> <li>• Estimating the sum, difference, products and quotients of whole numbers.</li> <li>• Problems involving exponents, simple averages, and order of operations.</li> <li>• Prime factorizations of whole numbers.</li> <li>• Applied problems and word problems.</li> </ul>	
Fractions	85 – 160
<ul style="list-style-type: none"> <li>• Forming, reducing, adding, subtracting, multiplying, dividing and comparing fractions.</li> <li>• Converting between mixed numbers and improper fractions.</li> <li>• Solving applied problems and word problems.</li> </ul>	
Decimals	161 – 218
<ul style="list-style-type: none"> <li>• Writing, rounding, adding, subtracting, multiplying, dividing and comparing decimals.</li> <li>• Converting between decimals and fractions.</li> <li>• Solve applied problems and word problems.</li> </ul>	
Basic Algebra	219 – 258
<ul style="list-style-type: none"> <li>• Translating between word statements and simple algebraic statements.</li> <li>• Evaluating simple algebraic expressions and solving simple linear equations.</li> <li>• Solving word problems.</li> </ul>	
Ratio and Proportion	259 – 286
<ul style="list-style-type: none"> <li>• Writing and simplifying ratios and rates as fractions.</li> <li>• Finding units rates and best buys.</li> <li>• Setting up and solving proportion problems.</li> <li>• Solving applied problems and word problems.</li> </ul>	
Percents	287 – 334
<ul style="list-style-type: none"> <li>• Converting between decimals, percent and fractions.</li> <li>• Setting up and solving percent problems, including application problems involving percent.</li> </ul>	
Signed numbers	335-380
<ul style="list-style-type: none"> <li>• Adding, subtracting, multiplying, dividing and comparing signed numbers.</li> <li>• Determining absolute value.</li> <li>• Completing word problems involving signed numbers.</li> </ul>	
Basic Statistics	381-417
<ul style="list-style-type: none"> <li>• Finding the mean median, mode, and range of a given set of numbers.</li> <li>• Reading and interpreting tables, line graphs, bar graphs and pie charts.</li> <li>• Solving applied problems and word problems involving basic statistics and bar graphs.</li> </ul>	
Scientific Notation	supplemental worksheet available in Math Lab
<ul style="list-style-type: none"> <li>• Converting numbers between standard form and scientific notation.</li> <li>• Adding, subtracting, multiplying, and dividing numbers in scientific notation.</li> <li>• Solving applied problems and word problems.</li> </ul>	

## The Remedial Course Exam Procedure Chart

