



## Mathematics Northeast College

Math 0306: Fundamentals of Mathematics 1

CRN 75885 – Spring 2014

Northline Room 227 | 7:00-8:30 p.m. | T/Th

3 hour lecture course / 48 hours per semester/ 16 weeks

Textbook: Prealgebra and Introductory Algebra (3<sup>rd</sup> Ed) by Bittinger, Ellenbogen, Beecher and Johnson

ISBN-13: 9780321731715

MyMathLab Course ID: **afiesimama23045**

**Instructor:** Dr Boma T Afiesimama

**Instructor Contact Information:** [boma.afiesimama@hccs.edu](mailto:boma.afiesimama@hccs.edu); Department phone no. 713-718-8049

**Office location and hours:** Northline Room 323; by appointment only.

### Course Description

Topics include fundamental operations in whole numbers, fractions and decimals, percents, ratios, proportions, descriptive statistics, and an introduction to the real numbers. All students who enroll in this course are expected to complete MATH 0308 and MATH 0312 in the following consecutive semesters before attempting their first college-level mathematics course (usually MATH 1314 College Algebra). A comprehensive Departmental Final Exam will be given in this course.

### Prerequisites

SAT: Less than 450      ASSET: Scaled Score: Less than 41

COMPASS: Scaled Score: Less than 49      ACCUPLACER: Scaled Score: Less than 49

### Course Goal

This course provides students with the basic arithmetical skills enabling them to proceed to the next level mathematics course. It is also designed to strengthen many of the skills that an individual must demonstrate or master in order to achieve college readiness. It is also intended for those students who are reasonably adept at performing the simple mathematical operations needed in every day affairs, but become quite confused when confronted with the same operations in the context of a mathematics class.

### Course Student Learning Outcomes (SLO):

1. Correctly choose and apply the four basic arithmetic operations with whole numbers, decimals, fractions and signed numbers to estimate and solve application problems.
2. Apply “Proportional Reasoning” to solve related problems including ratios, rates, proportion, percent and conversions of units.
3. Interpret data from tables, pictographs, bar graphs, line graphs, and circle graphs.
4. Simplify algebraic expressions.

### Learning outcomes

Students will:

- 1.1 add, subtract, multiply and divide whole numbers, understand the order of operations, and solve problems involving exponential notations.
- 1.2 solve problems by estimating and rounding.
- 1.3 add, subtract, multiply and divide integers.
- 1.4 find the least common multiples of two or more integers.
- 1.5 add, subtract, multiply and divide fractions.
- 1.6 add, subtract, multiply and divide with decimals and percent.
- 2.1 solve problems involving ratio and proportion.
- 3.1 read and interpret data from tables, pictographs, bar graphs, line graphs, and circle graphs.
- 4.1 simplify algebraic expressions.

### Holidays

There will be no classes held on March 11 and 13 (Spring Break).

## CALENDAR

<u>Chapters and Sections</u>	<u>Approximate Time</u>
<b>Chapter 1 WHOLE NUMBERS</b>	5 class hr
1.1 Standard Notation	
1.2 Addition	
1.3 Subtraction	
1.4 Rounding and Estimating; Order	
1.5 Multiplication and Area	
1.6 Division	
1.7 Solving Equations	
1.8 Applications and Problem Solving	
1.9 Exponential Notation and Order of Operations	
<b>Chapter 2 INTRODUCTION TO INTEGERS &amp; ALGEBRAIC EXPRESSIONS</b>	5 class hr
2.1 Integers and the Number Line	
2.2 Addition of Integers	
2.3 Subtraction of Integers	
2.4 Multiplication of Integers	
2.5 Division of Integers and Order of Operations	
2.6 Introduction to Algebra and Expressions	
2.7 Like Terms and Perimeter	
2.8 Solving Equations	
<b>Chapter 3 FRACTION NOTATION: MULTIPLICATION &amp; DIVISION</b>	6 class hr
3.1 Multiples and Divisibility	
3.2 Factorizations	
3.3 Fractions and Fraction Notation	
3.4 Multiplication of Fractions	
3.5 Simplifying	
3.6 Multiplying, Simplifying, and More with Area	
3.7 Reciprocals and Division	
3.8 Solving Equations: The Multiplication Principle	
<b>Chapter 4 FRACTION NOTATION: ADDITION, SUBTRACTION, AND MIXED NUMBERS</b>	6 class hr
4.1 Least Common Multiples	
4.2 Addition, Order, and Applications	
4.3 Subtraction, Equations, and Applications	
4.4 Solving Equations: Using the Principles Together	
4.5 Mixed Numerals	
4.6 Addition and Subtraction of Mixed Numerals; Applications	
4.7 Multiplication and Division of Mixed Numerals; Applications	
<b>Chapter 5 DECIMAL NOTATION</b>	6 class hr
5.1 Decimal Notation	
5.2 Addition and Subtraction of Decimals	
5.3 Multiplication of Decimals	

- 5.4 Division of Decimals
- 5.5 More with Fraction Notation and Decimal Notation
- 5.6 Estimating
- 5.7 Solving Equations
- 5.8 Applications and Problem Solving

**Chapter 6 PERCENT NOTATION**

6 class hr

- 6.1 Ratio and Proportion
- 6.2 Percent Notation
- 6.3 Percent and Fraction Notation
- 6.4 Solving Percent Problems Using Percent Equations
- 6.5 Solving Percent Problems Using Proportions
- 6.6 Applications of Percent
- 6.7 Sales Tax, Commission, Discount, and Interest
- 6.8 Simple Interest and Compound Interest; Credit Cards

**Chapter 7 DATA, GRAPHS, AND STATISTICS**

5 class hr

- 7.1 Averages, Medians, and Modes
- 7.2 Tables and Pictographs
- 7.3 Bar Graphs and Line Graphs
- 7.4 Circle Graphs

**REVIEWS, TESTS AND FINAL EXAM**

9 class hr

**Test Schedule:**

Test	Chapters Covered on Test	Date
Test #1	Chapters 1 and 2	Thursday, February 6
Test #2	Chapters 3 and 4	Thursday, March 6
Test #3	Chapters 5 and 6	Thursday, April 17
Final Exam	Chapters 1 - 7	May 05-10. Exact day will be announced in class.

**Instructional Methods**

Math0306 is a lecture class. Instructor will solve many exercise problems to demonstrate concepts presented in class. The adage "practice makes perfect" is particularly true for mathematics. So students are encouraged to solve all chapter review and chapter test questions in the textbook for practice. This is the only way to build confidence in your understanding of the material and maximize your chances to excel in the course.

**Student Assignments**

Homework will be assigned in MyMathLab for each section in the course schedule and must be completed by the due date indicated. (MYMATHLAB COURSE ID: **afiesimama23045**) A total of three tests will be taken in class during the semester. Practice tests will be posted on MyMathLab and reviewed in class. No make-up tests will be given except for College excused absences, emergency illness or death in the family with proper doctor's papers, or official College events with proper excuse from appropriate official. The final examination is departmental and consists of 40-50 multiple-choice problems. The problems cover all the material in the course outline.

### Final Exam Policy in Developmental Mathematics:

The following policy was adopted by Houston Community College regarding the system-wide Final Examinations in developmental mathematics courses:

If a student scores less than a 50 on the Final Exam, then the student receives an **F** in the course. If a student scores at least 50 but less than 60 on the Final Exam, then the student earns a **D** or an **F** in the course (depending on the course average). If a student scores at least a 60 on the Final Exam, then the grades will be averaged in accordance with the grade calculation formula as stated below; i.e., the student earns an **A, B, C, D, or F** in the course.

### Assessments

For students scoring a 60 or above on the Final Exam, course average will be based on the following formula: Homework Assignments (30%), 3 tests (45%), Final Examination (25%). The final course grade will be based on the standard HCC grading scale.

### Grading Scale:

Your final course grade is based on the following standard HCCS scale.

Course Average (Av)	$90 \leq Av \leq 100\%$	$80 \leq Av < 90\%$	$70 \leq Av < 80\%$	$60 \leq Av < 70\%$	$Av < 60\%$
Final Course Grade	A	B	C	D	F

Note: The instructor cannot assign a grade of IP or W.

### HCC Policy Statement - ADA

#### Services to Students with Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at his or her respective college at the beginning of each semester. Faculty members are authorized to provide only the accommodations requested by the Disability Support Services Office. Persons needing accommodations due to a documented disability should contact the ADA counselor for their college as soon as possible. For questions, please contact Donna Price at 713.718.5165. To visit the ADA Web site, please visit [www.hccs.edu](http://www.hccs.edu) then click Future students, scroll down the page and click on the words Disability Information.

### HCC Policy Statement: Academic Honesty

Note: As with all developmental mathematics courses at HCC, **the use of a calculator during an exam is prohibited** and will be considered cheating.

A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the instructor has teaching, grading, and enforcement roles. You are expected to be familiar with the University's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion.

#### Cheating on a test includes:

- Copying from another students' test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test not yet administered;
- Bribing another person to obtain a test that is to be administered.
- Plagiarism means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

Collusion mean the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook)

### **HCC Policy Statements**

*Class Attendance - It is important that you come to class!* Attending class regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success is attendance. Simply put, going to class greatly increases your ability to succeed. You are expected to be on time at the beginning of each class period. For complete information regarding Houston Community College's policies on attendance, please refer to the Student Handbook. You are responsible for materials covered during your absences. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences.

If you are not attending class, you are not learning the information. As the information that is discussed in class is important for your career, **students may be dropped from a course after accumulating absences in excess of six (6) hours of instruction.** The six hours of class time would include any total classes missed or for excessive tardiness or leaving class early.

You may decide NOT to come to class for whatever reason. As an adult making the decision not to attend, you do not have to notify the instructor prior to missing a class. However, if this happens too many times, you may suddenly find that you have "lost" the class.

Poor attendance records tend to correlate with poor grades. If you miss any class, including the first week, you are responsible for all material missed. It is a good idea to find a friend or a buddy in class who would be willing to share class notes or discussion or be able to hand in your work if you unavoidably miss a class

### **HCC Course Withdrawal Policy**

If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of withdrawal. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than **SIX** total course withdrawals **throughout** their educational career in obtaining a certificate and/or degree.

To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor *may* "alert" you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

If you plan on withdrawing from your class, you **MUST** contact a HCC counselor or your professor prior to withdrawing (dropping) the class for approval and this must be done **PRIOR** to the withdrawal deadline to receive a "W" on your transcript. **\*\*Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal deadlines. Remember to allow a 24-hour response time when communicating via email and/or telephone with a professor and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline.** If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade. **The last day to withdraw is Friday, November 1, 2013; 4:30 p.m.**

### **Repeat Course Fee**

The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC will charge a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

### **Classroom Behavior**

Students should not engage in disruptive activities while in the classroom. Any conduct that is deemed detrimental to the academic atmosphere, such as cell phone use or consistently talking during instructional delivery, will not be tolerated. Any student found guilty of such conduct will be asked to leave the classroom until further notice.

### **Use of Camera and/or Recording Devices**

As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off your phone and other electronic devices, and will not use these devices in the classroom unless you receive permission from the instructor.

Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations

### **Personal Communication Device Policy:**

All personal communication devices (any device with communication capabilities including but not limited to cell phones, blackberries, pagers, cameras, palmtop computers, lap tops, PDA's, radios, headsets, portable fax machines, recorders, organizers, databanks, and electronic dictionaries or translators) must be muted or turned off during class. Such activity during class time is deemed to be disruptive to the academic process. Personal communication devices are to not be on the student desk during examinations. Usage of such devices during exams is expressly prohibited during examinations and will be considered cheating (see academic honesty section above).

### **Mathematics Bridge Course Statement for 0306:**

Any student who earns a grade of D in Math 0306 is required to enroll in the Bridge Course-Math 0106. Please contact the Math department for details.

### **Student Course Reinstatement Policy:**

Students have a responsibility to arrange payment for their classes when they register, either through cash, credit card, financial aid, or the installment plan. Faculty members have a responsibility to check their class rolls regularly, especially during the early weeks of a term, and reconcile the official class roll to ensure that no one is attending class whose name does not appear on it. Students who are dropped from their courses for nonpayment of tuition and fees who request reinstatement after the official date of record (OE Date) can be reinstated by making payment in full and paying an additional \$75 per course reinstatement fee. A student requesting reinstatement should present the registrar with a completed **Enrollment Authorization Form** with the signature of the instructor, department chair, or dean who should verify that the student has been attending class regularly. Students who are reinstated are responsible for all course policies and procedures, including attendance requirements.

### **Resources:**

Any student enrolled in Math 0306 at HCC has access to the math tutoring labs which are staffed with student assistants who can aid students with math problems and offer help with MYMATHLAB. In addition, students can get free assistance, 24 hours a day, 7 days a week, in Math, English and other subjects, at [www.hccs.askonline.net](http://www.hccs.askonline.net). With MyMathLab, the free Math Tutoring Center is also provided. For the NE campuses tutoring hours, please visit [http://nelc.hccs.edu/start\\_files/Page1092](http://nelc.hccs.edu/start_files/Page1092). Another helpful resource is the student solutions manual that may be obtained from the bookstore.

There are also several online math resources that you can find with an internet search. You may also find information on the Learning Web site accessible through your specific HCCS campus website.

### **EGLS<sub>3</sub> -- Evaluation for Greater Learning Student Survey System**

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.