



# HOUSTON COMMUNITY COLLEGE SOUTHWEST COLLEGE

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Department of Mathematics  
COURSE SYLLABUS

## **MATH 0308: Fundamentals of Math II**

Fall 2008 / M W 8:00 am – 9:30 am / Stafford, Room # T-1 /CRN# 56269

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INSTRUCTOR: Adnan Ulhaque  
CONFERENCE TIMES: Tu&Th 8:00 am–11:00 am @ A120  
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MYMATHLAB COURSE ID: **ulhaque10864**

### **Textbook:**

Prealgebra and Introductory Algebra, 2<sup>nd</sup> Edition. Bittinger, Marvin L. & Ellenbogen, David J.  
Pearson /Addison Wesley: Boston, 2008.

### **Catalog Description:**

Topics include real numbers, basic geometry, polynomials, factoring, linear equations, inequalities, and rational expressions. A departmental final examination must be passed with a score of 60% or higher in order to pass the course.

**Prerequisites:** Math 0306 or MATH 0106: Pass with “C” or better  
Or  
Suitable placement test score.

**Credits:** 3 credit hours (3 Lecture).

### **Course Intent:**

This course is intended for students who have never been exposed to algebra or who have been away from the subject for quite some time. In particular, this course is intended to prepare students for the study of Intermediate Algebra, a course that builds the foundation for the study of College Algebra.

### **Audience:**

This course is intended for students who require state mandated remediation.

### **Testing policy:**

There will be three major exams and a departmental final exam. All exams will be graded and returned within a week. All students are responsible for knowing the material that will be on a test. If you do not understand the material then ask for help.

**Make-up policy:**

There will be no make-up exams. If you miss one exam, your final exam grade will be used as your grade for the missed exam. If another exam is missed, then the grade for that exam is zero.

**Grading policy:**

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

FINAL AVERAGE	FINAL COURSE GRADE
$90 \leq \text{Average} \leq 100\%$	A
$80 \leq \text{Average} < 90\%$	B
$70 \leq \text{Average} < 80\%$	C
$60 \leq \text{Average} < 70\%$	D
Average < 60% or Final Exam Grade < 60	F

**A grade of “IP” (In Progress) will not be given.** A grade of “F” is given if the final average is below 60 or the final exam grade is below 60.

For your course grade, the scores from your homework, three major tests, and the final examination will be taken into consideration as shown in the following formula.

$$\text{Final Average} = ((T1+T2+T3)/3) (0.60) + (\text{HW})(0.10) + (\text{Final})(0.3)$$

**Final Examination:**

The final examination is departmental and consists of 33 multiple-choice problems. The problems cover all the material required in the course. If you score lower than 60% on the final exam, you automatically are given a course grade of F, as noted under the grading policy. If your score on the final exam is 60% or higher, then your grades are averaged using the formula specified under grading policy. You **MUST** pass the final exam in order to pass the course.

**Attendance policy & Tardiness policy:**

Attendance is checked during every class. When you have accumulated 12.5 % or 6 hours of absences, the instructor is obligated by law to drop you from the class.

If you are tardy for a class, you are responsible for ensuring that you are marked present.

Three occasions of being tardy or leaving early will count as one absence. Two occasions of being tardy or leaving early for 25 minutes or more will be counted as one absence.

**Withdrawal policy:**

**If you wish to drop the class, then it is your responsibility to do that before the final drop date. If your name is on the roll at the end of the term, you WILL receive a grade.** Neither you nor your instructor will be able to perform the drop after the final drop date. Please refer to the following notice before dropping the class.

NOTICE: Students who take a course three or more times will face significant tuition or fee increases at HCC and other Texas public colleges and universities. In addition, state law allows students a maximum of 6 course withdrawals during their entire college career. Students with more than 6 drops will be required to pay additional fees. Prior to course withdrawal, you must confer with your professor or counselor about your study habits, homework, test-taking skills, attendance, course participation, and tutoring or other assistance that is available.

**Homework policy:**

All homework must be completed online using MYMATHLAB. Homework will be assigned regularly through the MyMathLab system which is available online at [www.mymathlab.com](http://www.mymathlab.com) or [www.coursecompass.com](http://www.coursecompass.com). Use the following course ID: **ulhaque10864**, and the school zip code is 77477.

**Calculators:**

Scientific Calculators are recommended. Graphing Calculators are not allowed on tests or quizzes. Cell phones may not be used as calculators.

**Student conduct:**

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.

**Academic dishonesty:**

All students are required to exercise academic honesty in completion of all tests and assignments. Penalties for academic dishonesty (cheating on a test, collusion on an assignment, etc.) include, but are not limited to, a reduced grade, a “0” on that test or assignment, a “W” in the course, or an “F” in the course. The use of recording devices, including camera phones and tape recorders, is prohibited in all locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Disability Services Office for information.

**Resources and supplemental instruction:**

Any student enrolled in Math 0308 at HCC has access to the tutoring labs where one-on-one help is available. The math tutoring labs are staffed with student assistants who can aid students with math problems and offer help with MYMATHLAB. Please check with your instructor for the hours of the tutoring labs. In addition, free online tutoring is provided. For information, go to the math department

web page and select the online tutoring link. Another resource is the student solutions manual that may be obtained from the bookstore.

**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 Support Services Office at this college at the beginning of the semester. To make an appointment, please call 713-718-7910. Professors are authorized to provide only the accommodations requested by the Disability Support Office.

**Course Schedule:**

<u>Chapters and Sections</u>	<u>Approximate Time</u>
<b>Chapter 8 Geometry</b>	<b>5 Days</b>
8.1 Basic Geometric Figures	
8.2 Perimeter	
8.3 Area	
8.4 Circles	
8.5 Volume and Surface Area	
8.6 Relationships Between Angle Measures	
8.7 Congruent Triangles and Properties of Parallelograms	
8.8 Similar Triangles	
<b>Chapter 9 Introduction to Real Numbers and Algebraic Expressions</b>	<b>4 Days</b>
9.1 Introduction to Algebra	
9.2 The Real Numbers	
9.3 Addition of Real Numbers	
9.4 Subtraction of Real Numbers	
9.5 Multiplication of Real Numbers	
9.6 Division of Real Numbers	
9.7 Properties of Real Numbers	
9.8 Simplifying Expressions; Order of Operations	
<b>Chapter 10 Solving Equations and Inequalities</b>	<b>4 Days</b>
10.1 Solving Equations: The Addition Principle	
10.2 Solving Equations: The Multiplication Principle	

- 10.3 Using the Principles Together
- 10.4 Formulas
- 10.5 Applications of Percent
- 10.6 Applications and Problem Solving
- 10.7 Solving Inequalities
- 10.8 Applications and Problem Solving with Inequalities

**Chapter 11 Graphs of Linear Equations** 1 Day

- 11.1 Graphs and Applications (Omit applications.)

**Chapter 12 Polynomials: Operations** 5 Days

- 12.1 Integers as Exponents
- 12.2 Exponents and Scientific Notation
- 12.3 Introduction to Polynomials
- 12.4 Addition and Subtraction of Polynomials
- 12.5 Multiplication of Polynomials
- 12.6 Special Products
- 12.7 Operations with Polynomials in Several Variables
- 12.8 Division of Polynomials (monomial divisors only)

**Chapter 13 Polynomials: Factoring** 4 Days

- 13.1 Introduction to Factoring
- 13.2 Factoring Trinomials of the Type  $x^2 + bx + c$
- 13.3 Factoring  $ax^2 + bx + c$ ,  $a \neq 1$ : The Foil Method
- 13.4 Factoring  $ax^2 + bx + c$ ,  $a \neq 1$ : The  $ac -$  Method
- 13.5 Factoring Trinomial Squares and Differences of Squares
- 13.6 Factoring: A General Strategy

## Chapter 14 Rational Expressions and Equations

2 Days

14.1 Multiplication and Simplifying Rational Expressions

14.2 Division and Reciprocals

### Test Schedule:

Test	Chapters Covered on Test	Date
Test #1	Chapters 8-9	Wednesday Oct 01,2008
Test #2	Chapters 10 and 12	Monday Nov 3,2008
Test #3	Chapters 11, 13, and 14	Monday Dec 1,2008
<b>Final Exam</b>	Chapters 8 - 14	<b>Wednesday Dec 10, 2008</b> <b>at 8:00 am – 10:00 am</b>

### Important Dates:

**Last Day to Drop: 11/06/08**

### Course Objectives:

Upon completion of this course, a student should be able to:

1. find the perimeter and area of rectangles, squares, parallelograms, triangles, trapezoids and circles; volume and surface area, relations between angle measures, congruent and similar triangles, and properties of parallelograms.
2. add, subtract, multiply and divide real numbers, and manipulate certain expressions.
3. solve problems using equations and inequalities.
4. solve problems using scientific notation.
5. factor polynomials using the techniques of the greatest common factor, difference of two squares, special trinomials, and grouping.
6. simplify, multiply, and divide rational expressions.
7. plot ordered pairs and graph linear equations.