Mathematics

West Loop

Math 0409: Foundations of Mathematics

CRN 16285 –Spring 2017

Room C 258| 5:30 -7:30p.m. | (Mon and Wed)

4 hour lecture course / 64 hours per semester/ # of weeks

Textbook: Introductory and Intermediate Algebra. Houston Community College Developmental Math Courses 0409/0312 (Custom Edition). Pearson Learning Solutions: Boston, 2015

ISBN 13: 978-1-323-15682-7.

MyMathLab Course ID abbasi20943

Instructor: Mohammad Abbasi

Instructor Contact Information: mohammad.abbasi@hccs.edu

Course Description

Foundations of Mathematics: Topics include real numbers, basic geometry, polynomials, factoring, linear equations, linear inequalities, set operations, rational expressions, and an introduction to modeling which may include exponential, quadratic and linear models. A departmental final examination must be passed with a score of 60% or more in order to pas s the course. Prerequisite: MATH 0106 or equivalent test score.

Prerequisites

TSIA Reading Score above 341 or GUST 0339 with a grade of C or higher; TSIA ABE level 5 or 6; TSIA Math Score 336 – 347 with Elementary Algebra Score 5 – 15 and Intermediate Algebra Score 0 – 6; Math 0106: Pass with "C" or better

Course Goal:

This course is intended for students who have either never been exposed to algebra or who have been away from the subject for quite some time. Particularly, this course is intended to prepare students for the study of Math 0312 or for a non−Calculus−based College Level Math course, specifically Math 1332 or Math 1333.

Course Student Learning Outcomes (SLO):

1. Identify and apply properties of real numbers, and perform accurate arithmetic operations with numbers in various formats.
2. Demonstrate the ability to manipulate/simplify algebraic expressions, & classify/solve algebraic equations with appropriate techniques.
3. Demonstrate the use of elementary graphing techniques.
4. Apply basic geometric theorems and formulas to rectangles, squares, parallelograms, triangles, parallelograms, trianglesApply "Proportional Reasoning" to solve related problems including ratios, rates, proportion, percent and conversions of units.
5. Recognize, examine, and interpret the linear, quadratic, exponential, and/or rational models of equations.

Learning objectives

Students will:

1. add, subtract, multiply and divide real numbers and manipulate certain expressions.
2. find the perimeter and area of rectangles, squares, parallelograms, triangles and circles.
3. solve problems using scientific notation.
4. simplify algebraic expressions.
5. solve problems using equations and inequalities.
6. factor polynomials using the techniques of the greatest common factor, grouping, difference of two squares and trinomials of the form $x^2 + bx + c$.
7. multiply and divide, and simplify rational expressions
8. plot ordered pairs and graph linear equations.
9. graph linear inequalities.
10. Find the rate of change of a line & write its equation.
11. Model situations with linear, quadratic, or exponential functions.

Assessment/Make-up and Grading

There are assigned homework problems after every section. It is crucial for you to succeed in this class that you do faithfully your homework every week on MyMathLab.

There will be 4 major Test, Homework and comprehensive departmental final exam.
One of the lowest grades in your major test will be drop.

There will be no makeup, since the lowest test grade will be drop.

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:

a. Students who score less than 60% on the Final Examination or who have an overall course average less than 70% will be awarded a grade of "IP" or "F." The "IP" grade will be awarded to those students who took Math 0409 for the 1st time. The "F" grade will be awarded to those students who are repeating Math 0409.

b. Students who score 60% or higher on the Final Examination and whose overall course average are equal to or greater than 70%, will have their grades averaged and awarded a grade based upon the standard 10 point scale.

AVERAGE	***GRADE***
90% ≤ Final Average ≤ 100%	***A***
80% ≤ Final Average < 90%	***B***
70% ≤ Final Average < 80%	***C***
0% ≤ Final Average < 70%	***IP or F***

Note: The grade of "FX" is given when a student fails due to lack of attendance. A grade of "W" may be given on or before the official withdrawal date but not at the time of final grade submission.

Note: The instructor cannot assign a grade of IP or W. The grade of "FX" is given when a student fails due to lack of attendance.

Assessments (Break down of grade calculation by points or percentage – see sample below)

Homework	20%
Exams	55 %,
Final exam	25%.

Attendance

You benefit for attending class regularly. You earn rewards as follows:
Perfect attendance (0 absent and 0 tardy) = 5. The point will add to the final exam grade.
The students receive 10 points as extra credit assign to each test with perfect attendance between two tests and doing test review.
Any student who arrives 15 minutes after the class has begun or leaves before the class is dismissed without any prior approval of the instructor is considered absent.

CALENDAR

Jan 18	**Sec 8.2** Perimeter **Sec 8.3** Area
Jan 23	**Sec 8.4** Circles

Jan 25	**Sec 1.1** Introduction to Algebra
	Sec 1.2 the Real Numbers
Jan 30	**Sec 1.3** Addition of Real Numbers
	Sec 1.4 Subtractions of Real Numbers
Feb 1	**Sec 1.5** Multiplication of Real Numbers
	Sec 1.6 Divisions of Real Numbers
Feb 6	**Sec 1.7** Properties of Real Numbers
	Sec 1.8 Simplifying Expressions; Order of Operations
Feb 8	**Test One Review**
Feb 13	**Test # I**
Feb 15	**Sec 2.1** Solving Equations: The Addition Principle
	Sec 2.2 Solving Equations: The Multiplication Principle
Feb 20	***President day Holiday***
Feb22	**Sec 2.3** Using the Principles Together
	Sec 2.4 Formulas
Feb 27	**Sec 2.5** Applications of Percent
	Sec 2.6 Applications and Problem Solving
Mar 6	**Sec 2.7** Solving Inequalities
	Sec 2.8 Applications and Problem Solving with Inequalities
Mar 8	**Sec 3.1** Graphs Linear Equations
	Sec 3.2 More with Graphing and Intercepts

Mar13 – 19 Spring Brake Holiday

Mar 20 Test # 2

Mar 22 **Sec 3.7** Graph Linear Inequalities in Two Variables

Sec 4.1 Integers as Exponents

Mar 27 **Sec 4.1** Integers as Exponents

Sec 4.2 Exponents and Scientific Notation

Sec 4.3 Introduction to Polynomials

Mar 29 **Sec 4.4 Additions** and Subtraction of Polynomials

Sec 4.5 Multiplication of Polynomials

Apr 3 **Sec 4.6** Special Products

Apr 3 Last Day for Student Withdrawn

Apr 5 **Sec 4.7** Operations with Polynomials in Several Variables

Sec 4.8 Division of Polynomials (Monomials Divisors Only)

Apr 10 Test # 3

Apr 12 **Sec 5.1** Introduction to Factoring (GCF and Grouping)

Sec 5.2 Factoring Trinomials (of the type $x^2 + bx + c$ only)

Apr 17 **Sec 5.5** Factoring Trinomial Squares and Differences of Squares

Sec 5.6 Factoring: A General Strategy (Omit $ax^2 + bx + c$, $a \neq 1$)

Apr 19 **Sec 6.1** Multiplication and Simplifying Rational Expressions (Omit $ax^2 + bx + c$, $a \neq$

Sec 6.2 Division and Reciprocals (Omit $ax^2 + bx + c$, $a \neq 1$)

Apr 24 **Sec 6.7** Rational Equations and applications (Proportions only)

5.8 Applications Using Rational Equations and Proportions (proportions Only)

Sec 7.1 Introduction to Radical Expressions (Include Perfect Square Radicands Only

Apr 26 Modeling, Quadratic Modeling, and Exponential Modeling

May 1 Test # 4

May 3 Final Exam Review

May 8 comprehensive Final Exam 5:30 PM – 7:30PM

Student will get $ 90 Credit for online porches

Pearson's MyLab & Mastering

MyMathLab®

Student Registration Instructions

PEARSON ALWAYS LEARNING

To register for Math 0409 Spring 17

1. Go to www.pearsonmylabandmastering.com.
2. Under Register, select **Student**.
3. Confirm you have the information needed, then select **OK! Register now**.
4. Enter your instructor's course abbasi20943 and **Continue**.
5. Enter your existing Pearson account **username** and **password** to **Sign In**.

   You have an account if you have used a Pearson product, for example: MyMathLab, MyITLab, MyPsychLab, MySpanishLab or Mastering, such as MasteringBiology.

- If you don't have an account, select **Create** and complete the required fields.

6. Select an access option.

- Use the access code that came with your textbook or that you purchased separately from the bookstore.
- Buy access using a credit card or PayPal account.
- If available, get 14 days temporary access. (The link is near the bottom of the screen.)

7. From the confirmation page, select **Go To My Courses**.

8. On the My Courses page, select the course tile **Math 0409 Spring 17** to start your work.

To sign in later:

1. Go to www.pearsonmylabandmastering.com.
2. Select **Sign In**.
3. Enter your Pearson account **username** and **password,** and **Sign In**.
4. Select the course tile **Math 0409 Spring 17** to start your work.

To upgrade temporary access to full access:

1. Go to www.pearsonmylabandmastering.com.
2. Select **Sign In**.
3. Enter your Pearson account **username** and **password,** and **Sign In**.
4. Select **Upgrade access** from the course tile **Math 0409 Spring 17**.
5. Enter an access code or purchase access with a credit card or PayPal account.

For a registration overview, go to www.pearsonmylabandmastering.com/students/get-registered. Scroll down to **Need a little help?** and select a video.

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 then click Future students, scroll down the page and click on the words Disability Information.

HCC Policy Statement: Title IX

HCC is committed to provide a learning and working environment that is free from discrimination on the basis of sex which includes all forms of sexual misconduct. Title IX of the Education Amendments of 1972 requires that when a complaint is filed, a prompt and thorough investigation is initiated. Complaints may be filed with the HCC Title IX Coordinator available at 713 718-8271 or email at oie@hccs.edu.

Title IX of the Education Amendments of 1972 requires that institutions have policies and procedures that protect students' rights with regard to sex/gender discrimination.

Information regarding these rights are on the HCC website under Students-Anti-discrimination. Students who are pregnant and require accommodations should contact any of the ADA Counselors for assistance.

It is important that every student understands and conforms to respectful behavior while at HCC.

Sexual misconduct is not condoned and will be addressed promptly. Know your rights and how to avoid these difficult situations.

Log in to www.edurisksolutions.org. Sign in using your HCC student email account, then go to the button at the top right that says Login and enter your student number.

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.

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

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).

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:

Free tutoring is available The Learning Emporium at the Central Campus is available to all HCC students for tutoring in Mathematics, among other subjects. You may visit them in SJAC 384 or contact them at 713-714-6356 Additional help is also available through Student Support Services. Students can get free assistance, 24 hours a day, 7 days a week, in Math, English and other subjects, at www.hccs.askonline.net. Typically, posted questions are answered by an HCC tutor or faculty within 24 hours (usually under 6 hours). 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$_3$ -- 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. Visit www.hccs.edu/EGLS3 for more information.

Administration contact information

College - Level Math Courses

Chair of Math	Jaime Hernandez	SW Campus	713-718-2477	Stafford, Scarcella, N108
- Secretary	Tiffany Pham	SW Campus	713-718-7770	Stafford, Scarcella, N108
Math Assoc. Chair	Clen Vance	CE Campus	713-718-6421	San Jacinto Building, Rm 369
Math Assoc. Chair	Ernest Lowery	NW Campu	713-718-5512	Katy Campus Building, Rm 112
Math Assoc. Chair	Mahmoud Basharat	NE Campus	713-718-2438	Codwell Hall Rm 105

Developmental Math Courses

Chair of Dev. Math	Susan Fife	SE Campus	713-718-7241	Felix Morales Building, Rm 124
- Secretary	Carmen Vasquez	SE Campus	713-718-7056	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Marisol Montemayo	SE Campus	713-718-7153	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Jack Hatton	NE Campus	713-718-2434	Northline Building, Room 321
Technical Support Speci	Hien Nguyen	NE Campus	713-718-2440	Northline Building, Rm 321

For issues related to your class, please first contact your instructor.

If you need to contact departmental administration, then contact the appropriate Associate Chair.

If further administrative contact is necessary, then contact the appropriate Department Chair.