Mathematics
Southeast Campus
Math 0409: Foundations of Mathematics (Hybrid Course)

CRN 60438 Spring 2018
FM 123 9:00 AM – 12:50 PM / FRIDAYS
4 hour lecture course +0 hour lab / 64 hours per semester/8 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: Access through Canvas https://eagleonline.hccs.edu/login/ldap
ATTENDANCE IS MANDATORY

Instructor: Kevaughn Jeffery

Instructor Contact Information: Email: kevaughn.jeffery@hccs.edu , Office: 713-718-7056

Type of Instruction: Hybrid (50% face-to-face and 50% online) Online portion is accessed through Canvas

Office location and hours: Please make an appointment

Preferred Method of Contact: I would prefer that you reach me through email.

Class Cancellation: The department secretary will call the students in case of cancellation

Course Description
Foundations of Mathematics: Topics include real numbers, proportions, descriptive statistics, basic geometry, polynomials, factoring, linear equations, inequalities, linear models, percentage models, order of operations, set operations, and an introduction to other models which may include exponential, quadratic and/or rational models. quadratic equations and rational expressions. A departmental final examination must be passed with a score of 60% or more in order to pas s the course. Prerequisite: MATH 0306 or equivalent test score.

Prerequisites

TSIA Reading Score above 341 or GUST 0339 with a grade of C or higher; 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, triangles and circles.
5. Demonstrate the ability to classify, add, subtract, multiply, divide, simplify, and factor polynomials
6. Apply "Proportional Reasoning" to solve related problems including ratios, rates, proportion, percent and conversions of units.
7. Recognize, examine, and interpret the linear, quadratic, exponential, and/or rational models of equations and evaluate the square roots of perfect square numbers.

Learning objectives
Students will:
1.1 add, subtract, multiply and divide real numbers and manipulate certain expressions.
1.2 solve problems using scientific notation.
1.3 simplify algebraic expressions
2.1 solve linear equations and inequalities in one variable
2.2 solve problems using equations and inequalities.
3.1 plot ordered pairs and graph linear equations.

3.2 find the rate of change of a line and write its equation
3.3 graph linear inequalities in two variables
4.1 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.
5.1 Recognize polynomials, add, subtract, multiply, and divide polynomials
5.2 factor polynomials using the techniques of the greatest common factor, grouping, difference of two squares, and trinomials of the form $x^2 + bx + c$
6.1 multiply and divide, and simplify rational expressions
6.2 find ratios and solve rational equations and proportions
7.1 model situations with linear, quadratic, or exponential functions.
7.2 find square roots of perfect square numbers

Core Objectives

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication.

Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

CALENDAR

	UNIT I: CHAPTER 8 GEOMETRY	
O	**8.2 Perimeter**	
O	**8.3 Area**	**WEEK 1**
O	**8.4 Circles**	
O	**Appendix D: Introduction to Set Operations**	
	UNIT II: CHAPTER 1 REAL NUMBERS	
	1.1 Introduction to Algebra	
	1.2 The Real Numbers	**WEEK 1**
	1.3 Addition of Real Numbers	
O	**1.4 Subtraction of Real Numbers**	
O	**1.5 Multiplication of Real Numbers**	
O	**1.6 Division of Real Numbers**	**WEEK 2**
	1.7 Properties of Real Numbers	
	1.8 Simplifying Expressions; Order of Operations	
	EXAM 1: UNITS I AND II	

	UNIT III: CHAPTER 2 EQUATIONS AND INEQUALITIES	**WEEK 2**
O	**2.1 Solving Equations: The Addition Principle**	
O	**2.2 Solving Equations: The Multiplication Principle**	
	2.3 Using the Principles Together	
	2.4 Formulas	

	2.5 Applications of Percent	**WEEK 3**
O	2.6 Applications and Problem Solving	
O	2.7 Solving Inequalities	
	2.8 Applications and Problem Solving with Inequalities	
	UNIT IV: CHAPTER 3 GRAPHS OF LINEAR EQUATIONS	**WEEK 3**
	3.1 Graphs and Applications	
	3.2 Graphing Linear Equations	
	3.3 Slope and Applications	
O	**3.5 Graphing Using Slope and the Y-Intercept**	
O	**3.7 Graph Linear Inequalities in Two Variables**	
	EXAM 2: UNITS III AND IV	

	UNIT V: CHAPTER 4 POLYNOMIALS	**WEEK 4**
	4.1 Integers as Exponents	
	4.2 Exponents and Scientific Notation	
O	**4.3 Introduction to Polynomials**	**WEEK 4**
O	**4.4 Addition and Subtraction of Polynomials**	
	4.5 Multiplication of Polynomials	
	4.6 Special Products	
	4.7 Operations with Polynomials in Several Variables	**WEEK 5**
O	4.8 Division of Polynomials (monomial divisors only)	
	UNIT VI: CHAPTER 5 FACTORING POLYNOMIALS	
O	**5.1 Introduction to Factoring**	
	5.2 Factoring Trinomials of the Type $x^2 + bx + c$	
	5.5 Factoring Trinomial Squares and Differences of Squares	**WEEK 6**
	5.6 Factoring: A General Strategy (omit $ax^2 + bx + c$)	
	EXAM 3: UNITS V AND VI	

	UNIT VII: CHAPTER 6 RATIONAL EXPRESSIONS	**WEEK 6**
O	6.1 Multiplying and Simplifying Rational Expressions (omit $ax^2 + bx + c$, $a \neq 1$)	
O	6.2 Division and Reciprocals (omit $ax^2 + bx + c$, $a \neq 1$)	
	6.7 Rational Equations and Applications (proportions only)	
	6.8 Applications Using Rational Equations and Proportions (proportions only)	
		WEEK 7
	UNIT VIII: RADICAL EXPRESSIONS & EQUATIONS and MODELING	
O	**7.1 Introduction to Radical Expressions (include Perfect Square Radicands only)**	
	Linear Modeling	**WEEK 7**
	Quadratic Modeling	
	Exponential Modeling	
	REVIEW FOR FINAL EXAM – Available Online	**WEEK 8**
	FINAL EXAM – WORTH 30%	**WEEK 8**

NOTE: The above test dates for Tests 1-4 are subject to change at the discretion of the instructor.

Instructional Methods

This is a hybrid class. You will attend class one day per week and you will be responsible for approximately three sections of material to be completed outside of the designated face-to-face class time.

While you will be logging into Eagle Online for notes, announcements and other important information on a weekly basis, most of the instruction will come from a homework management system called MyMathLab, which must be purchased for this class.
MyMathLab can accessed through Canvas at https://eagleonline.hccs.edu/login/ldap

Student Assignments

Homework and quizzes will be submitted online through MyMathLab. Three (at least) major exams and the final exam will be proctored and taken in class. No calculators or formula sheets will be allowed on any proctored exam, except for the Geometric Formula sheet. Final Exam Policy in Developmental Mathematics

Assessments The assessments weights are as follows: Homework-10%, Quizzes-10%, Tests-50%, Final Exam-30%.

Classroom Behavior

Food/Children Policy

Absolutely no food or drinks are allowed in the classroom. If you bring food or drinks to class you will be asked to dispose of it. HCCS policy forbids children in classrooms and lab facilities.

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 below).

Calculator Policy: As with all developmental mathematics courses at HCC, **the use of a calculator during any exam, including the final exam, is prohibited** and will be considered cheating (see academic honesty section below).

Laptops

Laptops are not allowed in the classroom.

Final Exam: A comprehensive departmental final exam constructed by the mathematics department will be given. A Final Exam Review will be posted online prior to the final exam. You should work on the final exam review so as to better prepare you for the final exam. Three major exams and the final exam will be proctored and taken in class. **No calculators or formula** sheets will be allowed on any proctored exam. **Only students who are withdrawn from the course before the official withdrawal date of April 23, 2018 by 4:30 pm will be eligible for a grade of "W."**

Final Exam Policy in Developmental Mathematics

The final letter grade will be determined accordingly:

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. **A student whose score is greater than or equal to 60% on the Final Examination 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
Final Average < 70%	IP or F

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.

HCC Grading Scale:

A = 100 – 90.....4 points per semester hour
B = 89 – 80.....3 points per semester hour
C = 79 – 70.....2 points per semester hour
69 and below = F or IP.....0 points per semester hour
IP (In Progress).....0 points per semester hour
W(Withdrawn).....0 points per semester hour
I (Incomplete).....0 points per semester hour
AUD (Audit).....0 points per semester hour

IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses. To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.

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.

HCC Policy Statement – ADA

Access Student Services Policies on their Web site: http://www.hccs.edu/district/students/student-handbook/

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to http://www.hccs.edu/district/students/disability-services/

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 (equivalent to 4 absences)**. The six hours of class time would include any total classes missed or for excessive tardiness or leaving class early (3 tardies/left class early is equivalent to 1 absence). Role will be taken at the beginning and end of class. Students are expected to remain in class until the instructor dismisses the class. A tardy consists of arriving to class more than 5 minutes after class has started and **leaving early** consists of leaving more than 10 minutes before the end of class.

If you exceed four absences before the withdraw deadline (April 23, 2018), **YOU ARE AT RISK OF RECEIVING ONE OF THE FOLLOWING GRADES: W, F, OR FX. Three tardies will count as one absence. Arriving late or leaving early each count as one tardy.** So a student can receive more than one tardy if they arrive late or leave early. Arriving 45 minutes late for a class will count as an absence (one tardy for each 15 minutes late).

After the drop date, students who have excessive absences will no longer be allowed to drop. Zeros averaged in for required assignments/tests not submitted will lower your semester average significantly, most likely resulting in a grade of "F" or "FX".

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.

Campus Carry Policy: At HCC the safety of our students, staff, and faculty is our first priority. As of August 1, 2017, Houston Community College is subject to the Campus Carry Law (SB11 2015). For more information, visit the HCC Campus Carry web page at http://www.hccs.edu/district/departments/police/campus-carry/."

HCC Policy Statement: Sexual Misconduct
Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status-in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:
David Cross
Director EEO/Compliance
Office of Institutional Equity & Diversity
3100 Main
Houston, TX 77266-7517 or Institutional.Equity@hccs.edu

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.

Cell Phone Policy
All cell phones must be muted or turned off during class. Cell phone activity during class time is deemed to be disruptive to the academic process. Cell phones are not to be on student desks nor on students' laps during class time. Cell phone usage, of any

kind, is expressly prohibited during class. Text messaging is strictly prohibited during class time. Students who violate this cell phone policy will be told to leave class for the day and marked absent for the remainder of the class period.

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:
The HCC Tutoring Centers provide free tutoring for individual subjects offered at specific times throughout the week on various campuses. There is no need to make an appointment. If you need a tutor, visit: www.hccs.edu/findatutor for times and locations. For more information about tutoring at HCC, visit www.hccs.edu/district/students/tutoring.

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 https://hccs.upswing.io/. 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.

Any student that faces challenges securing their food or housing and believes this may affect their performance in the course are urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable us to provide any resources that HCC may possess

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www.harcourtcollege.com/math/nettutor/0030260264/ www.mhhe.com/barnett
Open Lab Hours: Students are welcome to stop by the Open Lab, located in room 210, to work on homework assignments outside of class. Please call (713) 718-7263 to find out the Open Lab hours for the semester.

Social Networking: DE students are encouraged to become a fan of DE on Facebook and follow DE on Twitter. These social networking sites can provide a sense of community for the online learner, as well as up-to-date information and announcements related to HCC and DE.

Basic Needs Security Statement
Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable us to provide any resources that HCC may possess.

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 Campus	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 Montemayor	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 Specialist	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.