Instructor: E. A. Smith, Jr.
Instructor Voice Mail/Office Phone: 713-718-5847
Office Hours (Room AD5): MW 12:30PM – 1:30PM ← preferred methods of contact → E-mail: edgar.smith@hccs.edu
Computer Lab Hours (Room 110): MW 8:30AM – 9:30AM

Catalog Description: Topics include factoring techniques, radicals, algebraic fractions, absolute values, complex numbers, graphing linear equations and inequalities, quadratic equations, systems of equations, graphing quadratic equations and an introduction to functions. Emphasis is placed on algebraic techniques, in order to successfully complete Math 1314 College Algebra, Math 1324 Mathematics for Business & Social Sciences, Math 1342 Statistics, or Math 1332 Mathematics for Liberal Arts. A Departmental Final examination must be passed with a score of 60% or more in order to pass this course.

Prerequisites: MATH 0409: Pass with “C” or better; or equivalent score on the placement exam.

Course Goal: This is the final course in the developmental mathematics sequence and its purpose is to prepare students for entry level college math.

Course Student Learning Outcomes:
1. Solve algebraic equations and inequalities involving rational expressions, radicals, quadratics, absolute values, or linear expressions.
2. Examine and interpret the linear and quadratic graphs of equations and inequalities.
3. Solve application problems.
4. Use and interpret function notation in both algebraic and graphical contexts.

Learning Objectives (these are tied to the Student Learning Outcomes):

Upon completion of this course, a student should be able to perform the following mathematical skills:

1.1 add, subtract, multiply and divide polynomials
1.2 factor polynomials
1.3 add, subtract, multiply and divide rational expressions
1.4 simplify complex fractions
1.5 solving equations involving rational expressions
1.6 simplify equations involving rational exponents and simplify radicals
1.7 add, subtract, multiply, divide expressions involving radicals and solve radical equations
1.8 add, subtract, multiply and divide complex numbers
1.9 solve quadratic equations by factoring, completing the square, use of the quadratic formula and the square root property
1.10 solve systems of linear equations in two variables
2.1 graph linear equations & linear inequalities in two variables
2.2 find the slope of a line & write its equation
2.3 graph quadratic functions and inequalities
3.1 solve word problems
4.1 recognize functional notation & evaluate functions.

Core objectives: 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), and Empirical & Quantitative Skills (to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions). More details are below.
Course calendar (general - may be adjusted at the instructor’s discretion):

<table>
<thead>
<tr>
<th>Week 1 – Week 5</th>
<th>Unit 1</th>
<th>Linear Equations and Inequalities, Absolute Value, Graphs</th>
<th>Sections 1.1 - 1.5, 1.7, 2.1 - 2.4</th>
<th>Assignments given online</th>
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<tr>
<td>Week 5 – Week 9</td>
<td>Unit 2</td>
<td>Systems of Linear Equations, Exponents, Polynomials</td>
<td>Sections 3.1, 4.1, 4.2, 4.4, 4.5, Chapter 5</td>
<td>Assignments given online</td>
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<tr>
<td>Week 9 – Week 13</td>
<td>Unit 3</td>
<td>Rational Expressions, Rational Exponents, Radicals, Complex Numbers</td>
<td>Sections 6.1 - 6.5, Chapter 7</td>
<td>Assignments given online</td>
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<tr>
<td>Week 13 – Week 15</td>
<td>Unit 4</td>
<td>Quadratic Equations, Relations, Functions, Parabolas, Quadratic Inequalities</td>
<td>Sections 8.1, 8.2, 2.5, 2.6, 4.3, 8.6, Appendix</td>
<td>Assignments given online</td>
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<tr>
<td>Week 16</td>
<td>Final Exam</td>
<td>Comprehensive</td>
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A regular exam will be given after each unit, excluding Unit 4. Due date for online homework: **Friday, December 4, 2015**. Online quizzes will be due regularly.

**Instructional Methods**

This course is mainly a traditional in-person lecture course but also contains a partly self-paced computer laboratory component. It will include discussion, question/answer, in-class practice, and review. Rather large sets of problems will be assigned to encourage regular practice.

**Student Assignments**

Regular Exams – There will be 3 regular in-class exams, all three of which count toward the regular exam average. **There are no make-up exams or exam retakes**; if one regular exam is missed, the final exam grade will be used in place of that grade. If more than one regular exam is missed, at least one grade of zero will count. Once an exam is seen, it cannot be considered “missed”. Dates for the regular exams will be given at least one week in advance.

Online Homework - Problem sets will be assigned online; all of these online sets will be due on **Friday, December 4, 2015** (turned in online), though they may be completed and submitted early. These sets may be completed in the Math Computer Lab (Room 110), the open lab (Room 705), at home, or at various locations where internet access is available. MyMathLab.com is the website where the online homework can be found.

Online Quizzes – Quizzes will be given online, also at MyMathLab.com. Unless otherwise stated, **there will be a quiz due every week**. Required laboratory time should be applied toward completing both the online homework sets and online quizzes.

In-Class Written Work – Certain in-class problems will be attempted and turned in at the end of most class periods on separate paper. These will be checked for effort and returned.

Class Participation – A grade will be given based on class participation (including any at-the-board work) and conduct.

Final Exam – There will be a comprehensive final exam. It is a multiple-choice, departmental exam that all students must take. See below for an important policy concerning the final exam.

**Student Assessments (Grading Formula)**

- Regular Exams – 35%
- Online Homework – 10%
- Online Quizzes – 20%
- In-Class Written Work – 5%
- Class Participation – 5%
- Final Exam – 25%

**Instructional Materials**


**HCC Policy Statement – ADA**

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 the respective college at the beginning of each semester. Faculty members are authorized to provide only the accommodations requested by the Disability Support Services Office. The Northwest College Spring Branch ADA Counselor is Lisa Parkinson. The office number is R14. Phone: 713-718-5422.
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.

HCC Policy Statement – Academic Honesty

All Houston Community College System students are required to exercise academic honesty in completion of all tests and assignments. Penalties for academic dishonesty (cheating on a test, plagiarism, collusion on an assignment, etc.) may include, but are not limited to, a reduced grade or a zero on that test or assignment, a W in the course, or an F in the course.

Other HCC Policies

Class attendance is most important. 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. Students can be dropped (withdrawn) if they miss over 12.5% of instructional time. For our purposes, if you miss five class periods, you can be administratively dropped. However, it is your responsibility to formally drop the class if you wish. You will not be automatically dropped if you stop attending the class. Attendance will be taken every 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. Everyone should make an effort to attend every class and to be on time, especially on exam days. It is the student’s responsibility to sign the class roll every class day.

Students who register for a course for a third or more times face significant tuition/fee increases at HCC and other Texas public colleges and universities. Also, in 2007, the Texas legislature passed a law limiting new students (those starting college in Fall 2007) to no more than six (6) total course withdrawals throughout their academic career in obtaining a baccalaureate degree. To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which the instructor will “alert” the student and HCC Student Services of the chance the student might fail a class because of excessive absences and/or poor academic performance. Please ask your instructor / counselor as early as possible about opportunities for tutoring / other assistance (help with study habits, test-taking skills, child care, financial aid, job placement, etc.) prior to considering course withdrawal if you are not receiving passing grades.

Resources are available if you need assistance with the class material. These include person-to-person help (instructor, tutors, fellow students, the Math Lab on campus) and online help at mymathlab.com. 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 HCC campus website. If you have any class related problems or concerns, please see the instructor first.

Please inform the instructor if you wish to withdraw from the course. It is suggested that students visit with a faculty advisor, a counselor or online student services prior to withdrawing (dropping) and this must be done before the withdrawal date and time below to receive a W.

Use of recording devices, including camera phones and sound or video 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.

All personal communication devices (any device with communication capabilities including but not limited to personal phones, laptops, PDA's, headphones/earphones, 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. Such electronic devices may not be used in the classroom unless you receive permission from the instructor, and these devices are NOT allowed on desks during examinations.

Instructor Requirements

Please respect others in the class. Policies concerning student misconduct will be followed and may be found in the HCCS Student Handbook.

If you need to leave class early, please inform the instructor before class begins and take a seat near the exit door, if available.

Core Objectives

Critical Thinking: There will be several application (“real world”) problems presented. We should be able to apply techniques and problem-solving skills learned in class to the solution of these problems, and, more importantly, to the solution of future problems of many sorts.

Communication Skills: Active participation in the learning process is encouraged.

Empirical & Quantitative Skills: Empirical research is a way of gaining knowledge by means of direct and indirect observation or experience. Quantitative research refers to the systematic empirical investigation of phenomena via statistical, mathematical, or numerical data or computational techniques. Through direct observation and practice, we should be able to solve quantitative problems using mathematical methods.

Program/Discipline Requirements

No calculators may be used on any graded assignment or exam, including the final exam.
A grade of 60% or better must be achieved on the final exam to proceed to the next math course. Anyone who achieves a grade of less than 60% on the final exam, or misses the final exam, must receive an “F”.

Houston Community College enforces developmental prerequisites and co-requisites of college-level courses. When a student enrolls in a college-level course that has developmental course co-requisites, he/she must also co-enroll in the developmental co-requisite course. If the student withdraws or is withdrawn for non-attendance from the co-requisite developmental course(s), the student must also be withdrawn from the college-level course. Override capability of this policy is reserved for developmental department chairs and deans only.

Additional Notes and Important Dates

Grading scale: 90-100 = A, 80-89 = B, 70-79 = C, below 70 = F. A grade of IP is no longer available, and grades of D or I are no longer offered in developmental mathematics courses. A grade of FX may be given if a student stops attending class without formally dropping. Example grade #1: Assume a student’s regular exam average is 92, his or her online quiz average is 91, his or her online homework average is 100, his or her in-class written work grade is 100, his or her participation grade is 95, and he or she earns a grade of 88 on the final exam. Then, .35(92) + .2(91) + .1(100) + .05(100) + .05(95) + .25(88) = 92 (rounded) = A. Example grade #2: Assume a student’s regular exam average is 92, his or her online quiz average is 91, his or her online homework average is 100, his or her in-class written work grade is 100, his or her participation grade is 95, and he or she earns a grade of 55 on the final exam. Then this student must receive an F based on the final exam grade policy given above. Grades of W can no longer be given after the official withdrawal date and time given below.

ELGS₃ – 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/ELGS3 for more information.

Administration contact information

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<tr>
<th>College - Level Math Courses</th>
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<tbody>
<tr>
<td>Chair of Math</td>
<td>Jaime Hernandez</td>
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<tr>
<td>- Secretary</td>
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<tr>
<td>Math Assoc. Chair</td>
<td>Roderick McBane</td>
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<tr>
<td>Math Assoc. Chair</td>
<td>Ernest Lowery</td>
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<td>Math Assoc. Chair</td>
<td>Mahmoud Basharat</td>
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<th>Developmental Math Courses</th>
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<tr>
<td>Chair of Dev. Math</td>
<td>Susan Fife</td>
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<tr>
<td>- Secretary</td>
<td>Carmen Vasquez</td>
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<tr>
<td>Dev. Math Assoc. Chair</td>
<td>Marisol Montemayor</td>
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<tr>
<td>Dev. Math Assoc. Chair</td>
<td>Jack Hatton</td>
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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.

MyMathLab Course ID – smith04776

Labor Day Holiday – September 7
Withdrawal Date – October 30, 4:30PM
Thanksgiving Holiday – November 26 through November 29
Final Exam – December 10, 12 Noon