

Mathematics Central College

IF YOU HAVE NOT READ THE PROFESSOR'S GREETING, DO SO NOW BEFORE PROCEEDING ANY FURTHER. YOU ARE RESPONSIBLE FOR THE INFORMATION ABOUT THE CLASS IN THE PROFESSOR'S GREETING DOCUMENT. Go to the Orientation

Page on HCC's Distance Education site and click on Professor's Greeting.

Math 0312-0028: Intermediate Algebra
CRN 85810 – Summer II 2011
Central Campus
3 hour lecture course +1hour lab / 64 hours per semester
Textbook: Lial, Hornsby, and McGinnis: Intermediate Algebra
MyMathLab Course ID: ferguson10496

Instructor: Mary Jane Ferguson

Instructor Contact Information: mary.ferguson@hccs.edu; 713-718-6441

Calculator Policy: Calculators are not permitted in this course. They cannot be used on the Homework, Tests, or Final Exam.

Office location and hours: JDB 310 Hours to be announced

Please feel free to contact me. You should not to wait until you have received a poor grade before asking for assistance. I am available to hear your concerns and just to discuss course topics. Feel free to come by my office anytime during these hours.

Course Description

Intermediate Algebra: Topics include factoring techniques, radicals, algebraic fractions, 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. A Departmental Final examination must be passed with a score of 60% or more in order to pass this course.

Prerequisites

ASSET: Elementary Algebra Raw Score: 14-25; Scaled Score: 45-55; ASSET: Intermediate Algebra Raw Score: 0-15; Scaled Score: 23-45; Math 0308: Pass with "C" or better

Learning objectives

Students will:

- add, subtract, multiply and divide polynomials
- factor polynomials
- add, subtract, multiply and divide rational expressions
- simplify complex fractions
- solving equations involving rational expressions
- graph linear equations & linear inequalities in two variables
- find the slope of a line & write its equation
- simplify equations involving rational exponents and simplify radicals
- add, subtract, multiply, divide expressions involving radicals and solve radical equations
- add, subtract, multiply and divide complex numbers
- solve quadratic equations by factoring, completing the square, use of the quadratic formula and the square root property
- graph quadratic functions and inequalities
- solve systems of linear equations in two variables
- solve word problems
- recognize functional notation & evaluate functions

List of Topics

A day-by-day schedule with deadlines is in the Course Materials section of MyMathLab in the COURSE DEADLINES document.

The sections to be covered in this course are:

- 2.1 Linear Equations in One Variable
- 2.2 Formulas
- 2.3 Applications of Linear Equations
- 2.5 Linear Inequalities in One Variable
- 2.7 Absolute Value Equations and Inequalities
- 3.1 The Rectangular Coordinate System
- 3.2 The Slope of a Line
- 3.3 Linear Equations in Two Variables
- 3.4 Linear Equations in Two Variables
- 3.5 Introduction to Functions
- 4.1 Systems of Linear Equations in Two Variables
- 5.1 Integer Exponents and Scientific Notation
- 5.3 Polynomial Functions, Graphs and Composition
- 5.4 Multiplying Polynomials
- 5.5 Dividing Polynomials
- 6.1 Greatest Common Factors; Factoring by Grouping
- 6.2 Factoring Trinomials
- 6.3 Special Factoring
- 6.4 A General Approach to Factoring
- 6.5 Solving Equations by Factoring
- 7.1 Rational Expressions and Functions; Multiplying and Dividing
- 7.2 Adding and Subtracting Rational Expressions
- 7.3 Complex Fractions
- 7.4 Equations with Rational Expressions and Graphs
- 7.5 Applications of Rational Expressions
- 8.1 Rational Expressions and Graphs
- 8.2 Rational Exponents
- 8.3 Simplifying Radical Expressions
- 8.4 Adding and Subtracting Radical Expressions
- 8.5 Multiplying and Dividing Radical Expressions

- 8.6 Solving Equations with Radicals
- 8.7 Complex Numbers
- 9.1 The Square Root Property and Completing the Square
- 9.2 The Quadratic Formula
- 9.6 More About Parabolas and Their Applications
- 9.7 Quadratic and Rational Inequalities

Instructional Methods

The class is conducted through MyMathLab. Students are given assignments and deadlines in MyMathLab throughout the semester. There are Power Point presentations, videos, online tutoring, phone tutoring, and step-by-step examples of homework problems provided by MyMathLab and Pearson Publishing. In addition, students can email questions directly to me. Tests are online. The final exam is written by the Mathematics Discipline Committee and is given district-wide.

Student Assignments

Graded homework sets have been designated for each section. Four online exams, online homework assignments, and a Cumulative Final Exam will be used to calculate the semester grade. Make-up exams will not be given. If ONE exam is missed, the grade from the final exam will be substituted for the missed exam. Any other missed exams will have a ZERO for their grade.

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 on the student syllabus; i.e., the student earns an **A**, **B**, **C**, **D**, or **F** in the course.

Assessments

MyMathLab online assignments
Four online tests
Online Final Exam
100 points
400 points
100 points

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 or the Central Campus Disability Counselors, Jaime Torres and Martha Scribner at 713.718.6164. 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.

At Central College, a student may contact John Reno by visiting his office located in SJAC 102, e-mail at john.reno@hccs.edu, or telephone at 713.718.6164. Also, interested students may wish to consult the **Disability Support Services Student Handbook** which may be found on-line.

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.

Any student found cheating in any way during this course will be immediately dropped from the course with the grade of F and a note of academic dishonesty will be noted on their transcript.

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 College'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.

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.

If you plan on withdrawing from your class, you MUST contact a HCC counselor 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 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.

Grading Scale

90 - 100 = A

80 - 89 = B

70 - 79 = C

60 - 69 = D

Below 60 = F

Personal Communication Device Policy:

Personal communication devices are to not be on the student desk and not in the students view 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 0312:

Any student who earns a grade of D in Math 0312 is qualified to enroll in the Bridge Course-Math 0112. Please visit with the instructor of your course 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:

Free tutoring is available in the Math Lab (JDB 300). Additional help is also available through the Learning Resource Center and 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). Students are STRONGLY encouraged to gain access to and do the practice problems online at http://interactmath.com, a website which offers free online exercises and step by step guides of the same types of problems found in the textbook.

Free phone tutoring is available through Pearson Publishing's help line. The number is in the folder that contained the MyMathLab access code.

DISTANCE EDUCATION SPRING 2011 SYLLABUS INCLUSIONS

BLACKBOARD STUDENT USER ID

Your Blackboard login user ID will be your HCC User ID (sometimes referred to as the "W" number). All HCC students have a unique User ID. If you do not know your User ID you can look it up by visiting the HCC home page:

- From www.hccs.edu, under the column "CONNECT", click on the "<u>Student System Sign In"</u> link
- o Then click on "Retrieve User ID" and follow the instructions.

Or use the direct link to access the Student Sign In page:

https://hccsaweb.hccs.edu:8080/psp/csprd/?cmd=login&languageCd=ENG

The default student password is "distance." Students will then be prompted to change

their password after their first login. Please visit the Distance Education Technical Support website if you need additional assistance with your login.

STUDENT SERVICES INFORMATION

The Distance Education Student Handbook contains policies and procedures unique to the DE student. Students should have reviewed the handbook as part of the mandatory orientation. It is the student's responsibility to be familiar with the handbook's contents. The handbook contains valuable information, answers, and resources, such as DE contacts, policies and procedures (how to drop, attendance requirements, etc.), student services (ADA, financial aid, degree planning, etc.), course information, testing procedures, technical support, and academic calendars. Refer to the DE Student Handbook by visiting this link: http://de.hccs.edu/de/de-student-handbook.

DISTANCE EDUCATION (DE) ADVISING AND COUNSELING SERVICES Much DE student information can be found on the DE Student Services website: de.hccs.edu. Advising or counseling can be accomplished through our online request form AskDECounseling. Counselors and Student Services Associates (SSA) can assist students with admissions, registration, entrance testing requirements, degree planning, transfer issues, and career counseling. In-person, confidential sessions can also be scheduled to provide brief counseling and community referrals to address personal concerns affecting academic success.

ASKDECOUNSELING FORM

<u>AskDECounseling</u> is a student services online help form. This is the best and quickest way for students to get accurate assistance with DE registration, enrollment, advising, and counseling. The online help form is simple to fill out, convenient, and readily accessible through the internet. Students do not have to travel to campus sites, leave work, or wait in an office or lobby to receive assistance. Upon submission, student requests are answered in the order they are received.

EARLY ALERT

HCC has instituted an Early Alert process by which your professor may "alert" you and DE counselors that you might fail a class because of excessive absences and/or poor academic performance. A counselor will then reach out to you to discuss your progress and offer any relevant resources. This initiative is designed to provide students with support services and resources to assist them in successfully completing their course.

HCC COURSE WITHDRAWAL POLICY

Beginning Fall 2007, the State of Texas imposes penalties on students who withdraw/drop courses excessively. Students are limited to no more than SIX total course withdrawals throughout their educational career at a Texas public college or university. Students are encouraged to review the HCC 6 Drop Policy. To help you avoid having to withdraw from any class, contact your DE professor regarding your academic performance. You may also want to contact your DE counselor to learn about helpful HCC resources (e.g. online tutoring, child care, financial

aid, job placement, etc.).

HOW TO DROP

- If a student decides to withdraw from a class upon careful review of other options, the student can withdraw online prior to the deadline through their HCC Student Center.
- HCC and/or professors may withdraw students for excessive absences without notification (see Class Attendance below).
- Students should check HCC's Academic Calendar by Term for withdrawal dates and deadlines. Classes of other duration (flex-entry, 8-weeks, etc.) may have different final withdrawal deadlines. Please contact the HCC Registrar's Office at 713.718.8500 to determine mini-term class withdrawal deadlines.

CLASS ATTENDANCE

As stated in the HCC Catalog, all students are expected to attend classes regularly. Students in DE courses must log into their Blackboard class or they will be counted as absent. Just like an on-campus class, your regular participation is required.

Although it is the responsibility of the student to withdraw officially from a course, the professor also has the authority to block a student from accessing Blackboard, and/or to withdraw a student for excessive absences or failure to participate regularly. DE students who do not log into their Blackboard class before the Official Day of Record will be automatically dropped for non-attendance. Completing the DE online orientation does not count as attendance.

DISABILITY SERVICES

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 the beginning of each semester. Professors are authorized to provide only the accommodations requested by the <u>Disability Support Services Office</u>.

DE students who are requesting special testing accommodations may choose the most convenient DSS office for assistance each semester:

District ADA Coordinator – Donna Price – 713.718.5165

Central ADA Counselors – Jaime Torres & Martha Scribner – 713.718.6164

Northeast ADA Counselor- Kim Ingram – 713.718.8420

Northwest ADA Counselor – Mahnaz Kolaini – 713.718.5422

Southeast ADA Counselor – Jette Lott - 713.718.7218

Southwest ADA Counselor – Dr. Becky Hauri – 713.718.7910

Coleman ADA Counselor - Dr. Raj Gupta - 713.718.7631

After student accommodation letters have been approved by the DSS office and

submitted to DE Counseling for processing, students will receive an email confirmation informing them of the Instructional Support Specialist (ISS) assigned to their professor.

LIBRARY RESOURCES

As a DE student you have the same access to first-rate information resources that the HCC Libraries make available to all HCC students. A special website pulls together all the tools DE students will need to complete research. Visit <u>Library Resources</u> specifically for Distance Education students.

Library services are available throughout HCC. Through a daily library delivery service and a listing of all materials belonging to HCC libraries, books may be requested from and delivered to any campus library. HCC also has cooperative borrowing agreements with the University of Houston libraries and provides a copy of the Houston Public library catalog at each library. These arrangements provide students with access to over 4 million volumes.

Special services provided by the library system include photocopying facilities; specialized equipment for disabled students; group and personalized instruction in library use, including a self-instructional media program to orient students to the use of the HCCS libraries; a "term paper" workshop; and online bibliographic search services.

ONLINE TUTORING

HCC provides free online tutoring in writing, math, science, and other subjects. Look for Ask Online on your Blackboard log-in page. This directs students to the HCC <u>AskOnline</u> Tutoring site: http://hccs.askonline.net/. Use your student ID or HCC e-mail address to create an account. Instructions, including a 5-minute video, are provided to make you familiar with the capabilities of this service.

SOCIAL NETWORKING

DE students are encouraged to become a fan of <u>DE on Facebook</u> and follow <u>DE on Twitter</u>. 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.

VIRTUAL CLASSROOM CONDUCT

As with on-campus classes, all students in HCC Distance Education courses are required to follow all HCC Policies & Procedures, the Student Code of Conduct, the Student Handbook, and relevant sections of the Texas Education Code when interacting and communicating in a virtual classroom with your professor and fellow students. Students who violate these policies and guidelines will be subject to disciplinary action that could include denial of access to course-related email, discussion groups, and chat rooms or even removal from the class.