SOUTHWEST COLLEGE
Department of Mathematics

COURSE SYLLABUS

MATH 0312: Intermediate Algebra (8 weeks)

Spring2012 / CRN 82779 / T Th 10:00am 12:00pm / Stafford LUB Room#319

INSTRUCTOR:	Eunice Kallarackal
CONTACT INFORMATION:	Eunice.kallarackal@hccs.edu
MYMATHLAB COURSE ID:	**Kallarackal90906**

(The Mymathlab access code is included in the book package at the bookstores. It can also be purchased separately online or at the bookstore.)

Office location and hours: Stafford LUB Room # 303.2. MW 10am-12pm
Please feel free to contact me concerning any problems that you are experiencing in this course. You do not need to wait until you have received a poor grade before asking for my assistance. Your performance in my class is very important to me. 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
Topics include factoring techniques, radicals, algebraic fractions, complex numbers, graphing linear equations and inequalities, quadratic equations, system 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 in order to pass this course.

Prerequisites
Must be placed into MATH 0312 (or higher) or completion of MATH 0308.

Student Learning Outcomes	Course Objectives
1. Solve algebraic equations and inequalities involving rational expressions, radicals, quadratics, or linear expressions.	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. Examine and interpret the linear and quadratic graphs of equations and inequalities.	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. Solve application problems.	3.1 Solve word problems
4. Use and interpret function notation in both algebraic and graphical contexts.	4.1 Recognize functional notation & evaluate functions

Instructional Methods

As an instructor, I want my students to be successful. I feel that it is my responsibility to provide you with knowledge concerning the field of mathematics, modeling good analytical problem solving strategies, and organizing and monitoring the success of each student with homework that allows you to connect the information that you learn in this course to applications in other course work and life in the real world.

As a student wanting to learn about the field of mathematics, it is your responsibility to read the textbook, submit assignments on the due dates, study for the exams, participate in classroom activities, attend class, and enjoy yourself while experiencing the real world of mathematics**.**

As I believe that engaging the students in the learning is essential for teaching to be effective, you will spend a portion of class time involved in problem solving activities. You will be involved in discussions with your classmates and your instructor. As you will want to contribute to these discussions, you will need to come to class prepared to discuss, analyze and evaluate information from your text and other assigned readings.

Student Assignments
This is a hybrid class. Assignments have been developed that will enhance your learning. To better understand a topic, you will be given assignments on key information that you will need to remember for your success in your career. I will cover 2 or 3 sections per class period. Additional notes are given in blackboard.
Students are required to successfully complete the following:

Homework
All homework must be completed online using MYMATHLAB. The MyMathLab Course ID to be used for registration purposes is **kallarackal**,90906 and the school zip code is 77477.
To register for MyMathLab and to access the homework, go to
http://pearsonmylabandmastering.com/?cc

Quizzes : In addition to homework, there will be six timed quizzes in my mathlab. Each quiz is worth 20 points and can be attempted three times. Due dates will not be extended.

Exams.
There will be a midterm examination and final departmental exam. All exams will be graded and returned to students within a week. If you perform below your expectations or fail any test, please set-up a conference with the instructor as soon as possible.

Make-up
There is absolutely no makeup. I will drop your lowest quiz grade out of the six quizzes

Non graphing calculators are allowed on quizzes and tests

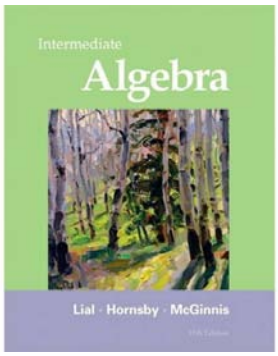
Final Examination:
The final examination is departmental and consists of 33 multiple-choice problems. The problems cover all the material required in the course. If you score lower than 60% on the final exam, you automatically are given a course grade of F, as noted under the grading policy. If your 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.

Tentative date
Midterm examination : 02/09/2012
Final Exam 03/08/2012

Instructional Materials

Textbook:

Intermediate Algebra
by Margaret L. Lial, John Hornsby, & Terry McGinnis; 11th Ed.
Publisher: Addison Wesley, 2011
ISBN-13: 9780321715418



Chapter 2 Linear Equations, Inequalities, and Applications

2.5 Linear Inequalities in One Variable

Chapter 3 Graphs, Linear Equations, and Functions

3.1 The Rectangular Coordinate System
3.2 The Slope of a Line
3.3 Linear Equations in Two Variables
3.4 Linear Inequalities in Two Variables (Omit compound inequalities.)
3.5 Introduction to Relations Functions

Chapter 4 Systems of Linear Equations

4.1 Systems of Linear Equations in Two Variables

Chapter 5 Exponents, Polynomials, and Polynomial Functions

5.4 Multiplying Polynomials
5.5 Dividing Polynomials

Chapter 6 Factoring

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

Chapter 7 Rational Expressions and Functions

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 (Omit graphs.)
7.5 Applications of Rational Expressions

Chapter 8 Roots, Radicals, and Root Functions

8.1 Radical Expressions and Graphs (Omit graphs and resonant frequency.)
8.2 Rational Exponents (Include a review of exponents.)

8.3 Simplifying Radical Expressions
8.4 Adding and Subtracting Radical Expressions
8.5 Multiplying & Dividing Radical Expressions (Omit rationalizing cube & 4^{th} roots.)
8.7 Complex Numbers

Chapter 9 Quadratic Equations, Inequalities, and Functions

9.1 The Square Root Property and Completing the Square
9.2 The Quadratic Formula

HCC Policy Statement - ADA

Services to Students with Disabilities

Students who require reasonable accommodations for disabilities are encouraged to report to Dr. Becky Hauri at 713-718-7910 to make necessary arrangements. Faculty is only authorized to provide accommodations by the Disability Support Service Office

HCC Policy Statement: Academic Honesty

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 that has not been 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 attend all lecture and labs regularly. 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 a paper if you unavoidably miss a class.

Class attendance equals class success.

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 day of withdrawal deadline for the first 8 weeks Spring 2012 February17, 4:30 PM. ***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
As your instructor and as a student in this class, it is our shared responsibility to develop and maintain a positive learning environment for everyone. Your instructor takes this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are asked to respect the learning needs of your classmates and assist your instructor to achieve this critical goal.

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

Instructor Requirements
<u>As your Instructor, it is my responsibility to</u>**:**

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through class activities, discussions, and lectures
- Describe the requirements of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness and make up
- Provide the course outline and class calendar which will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

<u>To be successful in this class, it is the student's responsibility to</u>**:**

- Attend class and participate in class discussions and activities
- Read and comprehend the textbook
- Complete the required assignments and exams:
- Chapter Exams, MyMathLab Homework, Final Exam

- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts and all assignments

Grading
I will conduct exams, and monitor your progress on homework assignments to determine how successful you are at achieving the course learning outcomes (mastery of course content and skills) outlined in the syllabus. If you find you are not mastering the material and skills, you are encouraged to reflect on how you study and prepare for each class. Your instructor welcomes a dialogue on what you discover and may be able to assist you in finding resources on campus that will improve your performance.

Online Homework	:	100points
Quizzes	:	100 points
Midterm	:	100 points
Final	:	100 points

Grading Scale
90 - 100 = A
80 - 89 = B
70 - 79 = C
60 - 69 = D
Below 60 = F

FINAL GRADE OF FX
Students who stop attending class and do not withdraw themselves prior to the withdrawal deadline may either be dropped by their professor for excessive absences or be assigned the final grade of "FX" at the end of the semester. Students who stop attending classes will receive a grade of "FX", compared to an earned grade of "F" which is due to poor performance. Logging into a DE course without active participation is seen as non-attending.

Please note that HCC will not disperse financial aid funding for students who have never attended class. Students who receive financial aid but fail to attend class will be reported to the Department of Education and may have to pay back their aid. A grade of "FX" is treated exactly the same as a grade of "F" in terms of GPA, probation, suspension, and satisfactory academic progress

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.