



Course Syllabus Southwest College

Math 0312: Intermediate Algebra

CRN: 45680 – Spring 2015-Second Start

Stafford - Learning Hub, Room 220 – MoWe 7:00PM- 9:30PM

3 hour lecture course +1hour lab - 64 hours per semester/ 12 weeks

Textbook: Intermediate Algebra by Lial, Hornsby, and McGinnis (11 ed):

ISBN-13: 9780321715418

MyMathLab Course ID: osman04787

Instructor: Osman M. Osman

Instructor Contact Information: Osman.osman@hccs.edu

Course Description

Intermediate Algebra: 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 with a grade of C or better; or appropriate placement score.

Course Goal

This is the final course in the developmental mathematics sequence and its purpose is to prepare students for College Algebra.

Course Student Learning Outcomes (SLO)

1. Solve algebraic equations and inequalities involving rational expressions, radicals, quadratics, 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 outcomes

Students will:

- 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, quadratic formula and 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

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.

Students enrolled in this core curriculum course will complete a research project or case study designed to cultivate the following 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.

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

CALENDAR

Test	Chapters Covered on Test	Date
Test #1	Chapters 2,3 and 4	March 11, 2015
Test #2	Chapters 5 and 6	April 8, 2015
Test #3	Chapters 7, 8 and 9	May 4, 2015
Final Exam	Chapters 2 – 9	Date: May 13, 2015 Time : 7:30 PM – 9:30 PM

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

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. Students will be required to successfully complete the following:

Homework

All homework must be completed online using MYMATHLAB. The MyMathLab grade will be the equivalent of one test grade. The MyMathLab Course ID to be used for registration purposes is **osman04787**, and the school zip code is 77477. To register for MyMathLab and to access the homework, go to www.coursecompass.com

Exam Policy:

There will be 3 major exams (T1, T2, T3), and a 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.

Homework: 25% of the total grade
(T1+ T2+ T3) / 3: 50% of the total grade
Final: 25% of the total grade

Make-up

No make-up exams unless student has a legitimate reason.

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.

Course outline

- Chapter 2 Linear Equations, Inequalities, and Applications**
 - 2.5 Linear Inequalities in One Variable
 - 2.7 Absolute value equations and inequalities (Do examples 1, 4 and 7 only. omit inequalities)

- 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
 - 3.6 Function notation and linear 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 & 4th 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

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 oi@hccs.edu.

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. **The last day to withdraw is Tuesday, April 14, 2015**

EGLS3 -- 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.

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

As your Instructor, it is my responsibility to:

- 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

To be successful in this class, it is the student's responsibility to:

- 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

Your instructor 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.

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

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).

Mathematics Bridge Course Statement for 0312:

Any student who earns a grade of D in Math 0312 is required 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.

Grading Scale

90 - 100 = A

80 - 89 = B

70 - 79 = C

60 - 69 = D

00 - 59 = F

Note: The instructor cannot assign a grade of IP or W.

Grading Policy:

Final grade= 25% of Homework + 50% of Average in-class tests (T1, T2 and T3) + 25% of Final Examination