

# Mathematics HCCS Central

Math 0312: Intermediate Algebra CRN 30101 – Spring/2013 JDB313| 12:00-3:00 pm | Mon-Thrs

3 hour lecture course +1hour lab / 64 hours per semester/ 8 weeks Textbook: Intermediate Algebra by Lial, Hornsby, and McGinnis (11 ed): ISBN-13: 9780321715418

MyMathLab Course ID: Calvillo70943

Instructor: Adrian Calvillo

**Instructor Contact Information**: Calvillo11@gmail.com

Office location and hours: Math Department - By appointment

## **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

#### **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.
- 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

## **Instructional Methods**

I believe in creating a comfortable classroom environment that is conductive to learning. I encourage students to participate and ask questions so that there is no misunderstanding. I believe in explaining the topic and illustrating how to approach the exercise. In this process I like to get my class familiar with the idea and technique and then set them on their own to work a few exercises on their own. I will supplement classroom learning with computer based exercises that can be worked on at home or at school and I will take questions at the beginning of class concerning any issues over said exercises. If you have any concerns regarding my instructions I ask that you hold them until after class and speak with me directly.

#### **Student Assignments**

The course will consist of homework/quizzes, 3 in class exams and a cumulative final exam. There will be no make-up exams. If a student were to miss an exam, the exam grade will be replaced with the final exam grade. If the student does not miss an exam and the final exam is better than the lowest exam grade I will replace the lowest test grade with the grade earned on the final exam.

### **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

Homework:	<b>7%</b>	of your final grade
Quizes:	8%	of your final grade
Exam 1:	20%	of your final grade
Exam 2:	20%	of your final grade
Exam 3:	20%	of your final grade
Final Exam:	25%	of your final grade

# **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.

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.

If you are caught cheating in any form, the result of the assignment will be a '0' with no chance of make up for the said assignment.

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.

<u>Plagiarism</u> means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

<u>Collusion</u> 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, <u>you are responsible for all material missed.</u> 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 4/22/2013** 

## 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. I expect students to be respectful to the instructor and to each other. Once a mutual respect is established a comfortable classroom environment will follow.

### 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
- Description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, 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:
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts and all assignments

# **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.

## **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.

# **Resources:**

Free tutoring is available in HCCS Central 3<sup>rd</sup> floor JDB building. 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 HCCS campus website.