

# SYLLABUS College Algebra MAC 1105 / 3 credit hours FALL 2016

Instructor: Hady (Parham) Ahmady Phoulady

**Office Location:** BADM 217 **Course Meeting Days and Times:** T/TR 5:30 PM – 6:45 PM **Effective Dates:** Aug 22<sup>th</sup> – Dec 12<sup>th</sup> **Instructor's EMAIL:** <u>hahmadyphoulady@hccfl.edu</u> **Office hours:** T/TR 5:15 PM - 5:30 PM

For the slides, visit: http://www.cse.usf.edu/~hady/courses/mac1105/fa16/index.html

Course Objectives: Are attached

# MY MATH LAB COURSE ID: ahmadyphoulady19765

# **Course Description:**

Provides students with the opportunity to gain algebraic knowledge needed for many fields such as engineering, business, science, computer technology, and mathematics. Graphical and numerical methods support the study of functions and their corresponding equations and inequalities. Students will study linear, quadratic, polynomial, rational, exponential, logarithmic, inverse, composite, radical, and absolute value functions; systems of equations and inequalities; modeling applied problems; and curve fitting techniques. Previous credit in any MAC class precludes credit in MAC 1105.

# Note: Graphing calculators are required.

# **Prerequisite:**

MAT 1033 with a grade of at least "C" or a required score on the HCC Placement test.

# **Required Materials:**

MyMathLab Student Access Code which will include the following:

- Access to MyMathLab Homework
- E-book of *College Algebra eText Reference*, 3<sup>rd</sup> ed., by Kirk Trigsted

Optionally, the student may wish to purchase the bundled package which includes a MyMathLab access code and a physical copy of the textbook.

#### Additional materials needed:

- 1. Pencils (to be used on all tests and in class quizzes).
- Calculator Each student should have his or her own scientific or graphing calculator (no symbolic calculator, such as TI 89 or 92). Calculators may be used on all tests and quizzes. Students cannot use their cell phones as a calculator in class.

#### **GRADING SYSTEM:**

# **Testing:**

Four 100 point tests will be administered as outlined on the tentative class schedule. Tests 1-3 will be given in class. Test 4 will be given online in MyMathLab. Students will have two attempts at online Test 4 and 120 minutes to complete each attempt. The deadline for test 4 will be 11:59PM on the due date. A 100 point cumulative **mandatory** final will be given at the end of the term. If a student misses one test, the grade for that test will be the grade from the final exam. If a student takes all the tests and score higher on the final exam than on one or more of Lathe tests, the lowest test grade will be replaced by the final exam score. If a student misses more than one test, the first zero score will be replaced with the grade from the final exam and all other grades will remain zeros. <u>Tests will not be made – up.</u>

# NOTE: Students must finish online Test 4 two hours after starting. If your browser or computer crashes, log back in immediately because the test time continues to count down.

## Quizzes:

Eight online quizzes will be given throughout the term. They are designed to help students prepare for the tests. The 6 highest scores will be counted. <u>Quizzes will not be made-up</u>. The two quizzes missed will count as the quiz grades to be dropped. If more than two quizzes are missed, the first two zero scores will be dropped and all other zero scores will remain. Students will have two attempts at each online quiz and 90 minutes to complete each attempt. The deadline for each online quiz is at 11:59 pm of the due date.

# NOTE: Students must finish the quiz 90 minutes after starting. If your browser or computer crashes, log back in immediately because the quiz time continues to count down.

# Note: The students can not attempt to open any other windows or pages during their online quiz time. This action will end their attempt to complete the quiz and a zero will be issued for that quiz.

# Homework:

The homework consists of assignments on the MyMathLab website. All assignments will be graded by the computer for credit. If students miss a homework deadline, they can complete the late assignment up until 11:59 PM the night before TEST 4 is due for 75 percent credit.

# Every student gets a free 14 day grace period to use MyMathLab so it is very important that students register themselves in their MyMathLab course within the first 2 days of class. Refer to the last page for directions on how to register.

<u>Students should call the toll free Product Support services number (1-800-677-6337) if they have any questions or problems.</u> If any student has any difficulty with his or her home computer, he or she may go to any Brandon Campus computer lab, the Math Lab (BLRC 200) or Student Success Center (BACA 207) and use the school computers to do the online homework.

**SUGGESTION:** As the students work through the online homework questions, they should write down the directions and problems neatly and keep the work organized so they have this to refer to when studying for quizzes and tests.

EVENT	PERCENTAGE
Three In-Class Tests and One Online	60%
Test	
Eight Quizzes	10%
( the two lowest scores will be dropped)	
Homework	10%
Attendance	5%
Final Exam	15%

GRADING SCALE	
90 - 100 %	А
80 - 89 %	В
70 – 79 %	С
60 - 69 %	D
0-59 %	F

#### Final grades may be viewed via WebAdvisor at the end of each term (www.facts.org).

#### **Class Attendance:**

Attendance will be taken every class. Four or more absences may result in a failing grade. Also, these absences will result in veterans being reported to the VA. It is extremely important to be on time to class. All early departures should be discussed and cleared with the instructor prior to class. Students are always responsible for letting the instructor know they are present if they arrive in the classroom after the instructor has taken the attendance.

#### **Religious Observances:**

HCC will reasonably accommodate the religious observances, practices, and beliefs of students in its admissions, class attendance and examination policies, and work assignments. Students must notify instructors in writing one week prior to a religious observance.

#### Withdrawal:

The last day for the students to withdraw from the course is <u>Saturday, October 29, 2016</u>. Additional information regarding the withdrawal policy can be found in the HCC Catalog, 2016 - 2017.

#### **Incomplete:**

Before an incomplete grade is give, all of the following requirements must be satisfied:

- 1. You must have completed more than two-third of the course.
- 2. You must have at least a "C" average.
- 3. You must provide written documentation justifying the request.

INCOMPLETE GRADES MUST BE APPROVED BY THE INSTRUCTOR AND CONFIRMED BY THE ACADEMIC DEAN. Additional information regarding the incomplete policy can be found in the HCC Catalog, 2016 - 2017.

#### Academic Success Center (Math Lab):

The Math Lab is located in BLRC 200. It is open Monday – Thursday from 9:00 AM to 7:30 PM and Friday from 9:00 AM to 1:00 PM. It will be closed on Saturday, Sunday and all college holidays. The phone number is 259-6598. All services are free to HCC students! The Math Lab will be open to all students on a walk-in basis, but each student will need to sign in every time they enter the lab. In order for students to receive consistent instruction, students need to bring their class notes with them when requesting assistance. For more information,

please see: http://www.hccfl.edu/br/student-services/academic-success-center/asc-frontpage.aspx

Also available to students is <u>SmarThinking</u>: a 24/7 online tutoring service provided free to students at Hillsborough Community College. For more information, go here: <u>https://smarthinking.hccfl.edu/index.php</u>

# Academic Dishonesty Policy:

Cheating is a serious offense. The cheating policy is described in the HCC Student Handbook. Anyone caught cheating on any work that contributes to the grade in this course will be given an automatic zero for that assignment. If cheating occurs on a test the grade of that test will not be replaced with a higher grade on the final exam and if cheating occurs on a quiz the grade of that quiz will not be dropped.

# **Request for accommodation:**

Any student whose disability falls within the American Disabilities Act (ADA) and requires accommodations should contact the Office of Services for Students with Disabilities. The Brandon office is located in the Student Service Building Room 109. You may also reach the office by phone at (813) 253-7914. Requests for accommodations should be submitted to the instructor within the first two weeks of the course. Accommodations cannot be applied retroactively. With that in mind, you are encouraged to seek assistance from the Disabilities Office as soon as possible, and to present the accommodations memo to your instructor immediately upon receiving it. Presenting a memo after the fact will not entitle you to redo work or retake exams with accommodations.

## **Test center information:**

After discussing testing in the test center with his/her instructor, a student must email the test center to make the appointment to test AT LEAST 24 HOURS in advance of taking the test. The Brandon Test Center email address is: <u>brtesting@hccfl.edu</u>. Within the message of the email, the student must provide the following information:

- 1. Student's name
- 2. Instructor's name
- 3. Course Name
- 4. Test Number
- 5. Date and time student wishes to take the test (Hours are: Monday & Tuesday 8:00 5:30, Wednesday & Thursday 8:30 3:00, and Friday 8:30 10:30)

The student will receive an Automatic reply: Appointment - APPROVAL confirmation. The Brandon test center is located in BSSB 203.

# STUDENTS WHO TEST IN THE TESTING CENTER MUST COMPLETE THE TEST ON OR BEFORE THE SCHEDULED IN CLASS TEST DAY.

# Email:

One of the personal tools offered to students is an official HCC student email address. Students are expected to use this email as the primary means of communicating with their instructor outside of class.

# **Recording of Class Sessions:**

It is not permissible to share class lectures or materials—electronically or otherwise—with anyone not registered for the same course section. Further, without express authorization, students shall not make or receive any recording of any class, co-curricular meeting, organizational meeting, or meeting with instructors.

# **Equity/Equal Access Policy:**

Hillsborough Community College is an equal access/equal opportunity employer that makes employment and education-related decisions without regard to race, color, gender, religion, national origin, age, disability, sexual orientation, marital status or any other bias that is or may be prohibited by laws. In addition, the college does not discriminate in employment practices or in the admission and treatment of students. HCC is committed to equitable treatment for all students and employees and to learning and working environment free of discrimination and harassment for current as well as future students and employees. The college provides equal educational opportunities for qualified individuals with disabilities and complies with, as well as, supports the Americans with Disabilities Act. HCC's Equity Officer ensures compliance with federal and state laws prohibiting discrimination and sexual harassment. Employees and students who believe they have been a victim of discrimination or sexual harassment should contact: Dr. Joan B. Holmes, Special Assistant to the President for Equity and Special Programs. Her telephone number and email are: 813-253-7043, jholmes16@hccfl.edu

#### Safety and Security:

Students who notice situations that represent potential or real safety or security problems should notify the local campus Public Safety Office:

• 253-7911 •

#### **Classroom Etiquette:**

- 1.) Please be on time to class and do not leave until the instructor is finished. It is very disruptive to the other students in the class when students are coming in and going out.
- 2.) If you do come in late or have to leave early sit near the door.
- 3.) Please <u>do not</u> come up to the desk to get any papers when you come in late. The instructor will give them to you at the end of the class.
- 4.) Please put all electronic equipment (cell phones, ipods, etc.) other than your calculator on vibrate mode or turned off completely. Laptops should be closed and put away. Ear phones should not be worn.
- 5.) Students are not allowed to receive or send text messages during class.
- 6.) Please do not bring food or drink into the room except for water.
- 7.) Keep talking to a minimum and only related to this class while the instructor is lecturing.

REMEMBE

REMIT R:



# MAC 1105 OBJECTIVES Kirk Trigsted/ Third edition (Fall 2016)

# 1. FUNCTIONS AND GRAPHS

- a. Find the distance between two points. (2.1)
- b. Define and identify relations and functions. (3.1)
- c. Find the domain and range of relations and functions. (3.1, 3.2)
- d. Use functional notation. (3.1)
- e. Evaluate and simplify the difference quotient of a function. (3.1)
- f. Identify linear functions and solve applied problems with linear functions. (1.1, 1.2)
- g. Perform operations with functions, including composition. (3.5)
- **h.** Understand characteristics and properties of the graphs of functions, including symmetry, extrema, and intervals of increasing, decreasing, constant. (3.2)
- i. Graph basic functions: y = c, y = x,  $y = x^2$ ,  $y = x^3$ ,  $y = \sqrt{x}$ , y = |x|,  $y = \frac{1}{x}$ . (3.3)
- j. Apply graphical transformations to functions. (3.4)
- k. Graph piecewise defined functions. (3.3)
- 1. Find the inverse of a function algebraically and graphically. (3.6)

# 2. POLYNOMIAL FUNCTIONS

- a. Graph quadratic functions and solve optimization problems involving quadratic functions. (4.1, 4.2)
- b. Use characteristics of polynomial functions to graph, including end behavior and multiplicity of zeros. (4.3)
- c. Solve polynomial inequalities. (1.9)

# 3. RATIONAL FUNCTIONS

- a. Graph rational functions including intercepts, vertical and horizontal asymptotes, and end behavior. (4.6)
- b. Solve rational inequalities. (1.9)
- c. Solve application problems involving rational functions. (4.6)

# 4. EXPONENTIAL AND LOGARITHMIC FUNCTIONS

- a. Convert between exponential and logarithmic form. (5.2)
- b. Evaluate logarithmic and exponential expressions. (5.1, 5.2)
- c. Use and apply the properties of logarithms, including change of base. (5.2, 5.3)
- d. Graph exponential and logarithmic functions. (5.1, 5.2)
- e. Solve exponential and logarithmic equations. (5.1, 5.4)
- f. Solve applications of exponential growth and decay. (5.5)

# 5. SYSTEMS OF EQUATIONS & INEQUALITIES

- a. Solve systems of linear equations in 3 variables by elimination/substitution. (7.2)
- b. Solve systems of non-linear equations in 2 variables. (7.5)
- c. Solve systems of non-linear inequalities graphically. (7.6)
- d. Solve application problems using systems of equations. (7.2)