I.   COURSE DESCRIPTION:
MAC 1140: Pre-Calculus Algebra, 3 lecture hours, and 3 credit hours.
Prerequisite: "C" or higher in MAC 1105. Placement scores for the following tests; ACT requires a score of 23 – 27; SAT requires 480 – 509; PERT requires a score of 138 – 150 and 43 – 92 (CLM).
Topics included are properties and graphs of polynomial and rational functions, polynomial and rational inequalities, properties and graphs of exponential and logarithmic functions, piecewise defined functions, conic sections, matrices and determinants, sequences and series, mathematical induction, binomial theorem, and applications.

II.   TEXT: Precalculus, Bedford, Brinegar, 2016, Gulf Coast State College

       OTHER MATERIALS: A graphing calculator is required. Ti-83 or Ti-84

III.   STUDENT LEARNING OUTCOMES:
   1.   Students will factor and simplify polynomial expressions with fractional exponents and negative exponents with 70% or higher accuracy.
   2.   Students will use the polynomial theorems to determine the possible and real zeros of the polynomial function with 70% or higher accuracy.
   3.   Given the zeros, students will find a polynomial with 70% or higher accuracy.
   4.   Students will evaluate and graph piece-wise, polynomial, rational, exponential, and logarithmic functions and conic sections with 70% or higher accuracy.
   5.   Students will solve and illustrate the graphs of polynomial and rational inequalities with 70% or higher accuracy.
   6.   Students will solve real world applications using polynomials, rationals, exponentials, logarithms, conic sections, and sequences and series with 70% or higher accuracy.
   7.   Students will use the properties of logarithms to expand and condense logarithmic expressions with 70% or higher accuracy.
   8.   Students will use matrices to solve systems of equations with 70% or higher accuracy.
   9.   Students will find the partial fraction decomposition of a rational expression with 70% or higher accuracy.
   10.   Students will use mathematical induction to prove a given statement or inequality with 70% or higher accuracy.
   11.   Students will list the first 5 terms of arithmetic, geometric, and recursively defined sequences and find the general term of a given sequence with 70% or higher accuracy.
   12.   Students will evaluate a series and write a given series in summation notation including a binomial expression using the Binomial Theorem with 70% or higher accuracy.

IV.   COURSE OUTLINE: See the attached daily class schedule for a detailed outline.

V.   ATTENDANCE-WITHDRAWAL-GRADE FORGIVENESS-ATTEMPS:

   A.   Attendance Policy:
         Students who are absent from class more than one eighth of a course without the instructor's permission shall be withdrawn. Students who never attend during the first two weeks of class shall be classified as "no show" and withdrawn from the course.

B. **Withdrawal Policy:**
Two withdrawals are permitted per course. After that, a grade will be assigned. Please be concerned about withdrawals. When admitting students into certain programs, universities may calculate withdrawals as grades. There are two kinds of withdrawals, student and administrative. Please see the manual of policy for detailed withdrawal policies.
1. Student Withdrawal
Student completes a withdrawal form and submits the form to the Office of Admissions and Records before the withdraw deadline.
2. Administrative Withdrawal
This withdrawal is done online by an instructor for excess absences Withdrawals initiated prior to midterm will be recorded as "W". There are no withdrawals initiated after the deadline. After this date, students will receive a grade.

C. **Grade Forgiveness:**
A student may repeat a course when a grade of "D" or "F" has been earned. The last grade counts. However, universities may count forgiven grades in calculating the grade point average. Forgiven grades may also be calculated in determining financial aid eligibility.

D. **Attempts:**
This course, which is a college credit course, may be attempted three times. On the third attempt, 100% of the full cost of instruction will be charged. Students with major extenuating circumstances may submit a letter of appeal stating the circumstances to the dean of students. All grades from the third and subsequent attempts will be calculated in the grade point average

VI. **HOMEWORK:** Homework will be assigned daily. The daily completion of all homework is essential for learning the material in the course and as preparation for the unit tests and final exam.

VII. **TESTING:**
There will be five unit tests given. The unit tests will be announced in advance, will count equally, and will be returned. The final exam **will not** be returned. There are **no exemptions** from the final exam. At the option of the instructor, "pop-quizzes" may be given almost daily and/or group activities and/or a homework notebook. The average of the daily grades will count as an additional unit test. Therefore, the number of grades counted as a unit test may be six. The student is expected to keep up daily with the assigned work.

VIII. **GRADING:**
The average of the five or six unit tests will count 75% of your grade. A comprehensive departmental final exam (no exemptions) will count 25% of your grade. The grading scale is A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0).

IX. **MAKE UP WORK:**
No daily quizzes will be made up. If you miss a unit test and you have a valid excuse, your final exam grade may count as the first missing unit test grade. If you miss more than one unit test, you may take a makeup test at the discretion of the instructor. If you have not missed any unit tests, the instructor has the option of allowing the final exam to be used to replace the lowest unit test grade. The quiz average will not be replaced.

X. <u>OTHER</u>:

A. Studying requires discipline, tenacity, and hard work. View this course as a job. Attendance is absolutely necessary, as well as attentiveness to detail and alertness. You must earn a "C" in this course in order to advance to MAC 2311, Calculus with Analytic Geometry I.

B. The Pay4Print system is installed in all computer labs and in the library. The logon to the system can be found by going to www.gulfcoast.edu and clicking on Student Resources and then on Pay4Print. The logon will be the same logon ID as the student email, using only the initials and randomly generated number. Students will be required to add money to their print accounts before they are able to print. Money can be added to student print accounts by credit or debit card with a minimum of $5.00 or at patron kiosks or bill acceptors.

C. Available Help Outside of Class:
    1. Your Instructor
        Full time faculty has posted ten (10) hours per week on their schedule. Their offices are located on the second floor of the Student Union West Building. Adjunct faculty is available for assistance 30 minutes before or after class. Students having difficulty are strongly encouraged to see the instructor for additional help.

    2. Student Learning Outcomes
        Student Learning Outcomes are available upon request. These outcomes are posted on the Mathematics' Web Site.

    3. Course Videos
        Course Videos on this course are available online at http://guides.gulfcoast.edu/math/coursevideos.

    4. Other
        Any student who feels she or he may need an accommodation based on the impact of a disability should contact the Office of Disability Support Services at 850-872-3834 or in the Student Union East room 59. The Office of Disability Support Services will coordinate reasonable accommodations for all students with documented disabilities.

CLASSROOM CONDUCT POLICY
OF THE
DIVISION OF MATHEMATICS
GULF COAST STATE COLLEGE

In order to promote a learning environment, in which you as a student may receive the greatest consideration, we will do all we can to prevent unnecessary interruptions and class disruptions. To this end, it is the stated policy of the Division of Mathematics that disruptions, absolutely and unequivocally, will not be tolerated in the classrooms administered by this division. To this end, we remind you that the **instructors are obligated** to adhere strictly to the following policies:

1. <u>Everyone is required to be in class on time.</u>
   Anyone entering the classroom after the instructor has begun class is late and is a disruption to the class. The instructor must implement an appropriate policy to discourage late arrivals.

2. <u>Disciplinary action in the case of cheating will be administered in accordance with college policy.</u>

3. <u>The student must have prior consent of the instructor before leaving the class early</u>.
   If you must leave class early, notify the instructor before the beginning of class. We do not conduct "open" classrooms where individuals may arrive and exit at their discretion. This activity is disruptive to those trying to learn and will not be allowed. If you leave early without prior notification to the instructor, you will not be allowed back in the classroom without first obtaining permission from Mrs. Reynolds, Division of Mathematics Chair.

4. The instructor is not to allow talking or other distractions to occur at inappropriate times. **<u>Use of electronic communication devices</u>** (including, but not limited to, cell phones, Ipods, PDA's, MP3/Music players, Blackberries, etc) are allowed in the classroom only at the discretion of the instructor and must be used only as they directly relate to the class. Talking or other disruptive behavior (including ringing cell phones) are distractions to other students and have no place in a college environment. Students who engage in such behavior will be asked to stop. If the behavior continues, the student(s) will be asked to leave and confer with Mrs. Reynolds, Division of Mathematics Chair, concerning the nature of the behavior before being allowed back in the classroom. **<u>NO</u>** electronic devices will be allowed in the classroom on test days with the exception of an approved calculator.

5. **No food or drink** <u>is allowed in the classroom</u>.

6. <u>Infractions of discipline may be handled by the instructor as final authority</u>.
   The student has a right to appeal.