

MAC1140-14891 PRE-CALCULUS ALGEBRA GENERAL EDUCATION CORE COURSE SYLLABUS.

Note: This syllabus is subject to change. The syllabus will be available in Canvas after the semester begin.

1. Semester Information

MAC 1140: Pre-Calculus Algebra, 3 lecture hours, and 3 credit hours.

Prerequisite: Minimum grade of “C” or higher in MAC 1105. Placement scores for the following ACT requires a score of 23 – 27; SAT requires 480 – 509; PERT requires a score of 138 – 150 (M) and 43 – 92 (CLM); New SAT requires 25.50
Current Semester: Spring 2023 CRN: 14891

2. Contact Information

Instructor: Donna Massey

Instructor Credentials BS Mathematics from Jacksonville State University, MS LD/EH from FSU, and Ed.S. Mathematics Education from FSU. Additional graduate math credits from FIT and Texas A&M. I currently teach dual enrolled mathematics at North Bay Haven Charter Academy.

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Division Chair contact information: Angelia Reynolds, areynolds@gulfcoast.edu; (850)872-3852

Division admin. Assistant contact information: Scott Spencer, sspencer@gulfcoast.edu; (850)747-3229

3. Approved Course Materials and Resources

- a. **Textbook** Precalculus, Bedford, 2017, Gulf Coast State College
- b. **Graphing Calculator:** A graphing calculator is required (TI-83 or TI-84). The problems in the text, software, and course videos are illustrated using the TI-84+. Students are expected to have their own calculators. If a student wishes to use any other calculator, they must see their instructor in advance for approval.

4. Curriculum

- a. **Course Description:** Prerequisite: “C” or higher in MAC 1105. A graphing calculator is required. The TI-83/84 are the only allowable calculators for test days. If a student wishes to use any other calculator they must see their instructor in advance for approval. 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.

b. **Methods of Instruction**

Traditional Class Room Setting: The course is conducted by the lecture-question-demonstration method. At the beginning of the period, questions are encouraged about the previous lecture, current reading, and problem assignment. All questions and problems are discussed as time permits. The instructor then lectures from current material from the text. Demonstrations of various sample problem-solving methods are presented thoroughly when not beyond the scope of the course and the background of the students. Formulas are proven, background is given (when possible), applications are mentioned, and procedures are outlined. Sample problems are worked. The students are encouraged to ask questions at any point in the lecture. A short summary is given and a problem assignment is made. Return unit tests and quizzes at the beginning of the period to allow ample time for discussion and questions. Unit tests and the final exam are announced in advance through the daily schedule. Unit tests are returned in a timely manner and any of the problems requested are fully explained. Problems frequently missed are reviewed whether requested or not. The final exam **is not** returned.

- c. **Broad Goals of the course:** The goal of this course is to give the student (1) a thorough background in algebra as a basis for the calculus sequence and (2) algebra skills and concepts useful in any future mathematics course work. It is expected that the student will be able to understand the concepts of algebra as well as work a range of problems, from basic problems up to the more difficult application and conceptual problems. The student must earn a grade of "C" or better in this course in order to proceed to the next level math course.

d. **Approved Student Learning Outcomes (objectives)**

The Student will be able to:

- Evaluate and graph piece-wise, polynomial, rational, exponential, and logarithmic functions along with solving and illustrating the graphs of polynomial and rational inequalities.
- Use polynomial theorems and synthetic division to determine all the possible real zeros of a polynomial function and find a polynomial from the given zeros.
- Use the properties of logarithms to expand, and condense logarithmic expressions, solve exponential and logarithmic equations, and solve real-world applications.
- Use matrices and determinants, including the technique of partial fraction decomposition of a rational expression to solve systems of equations.
- Factor and simplify polynomial and rational expressions with fractional exponents and negative exponents, graph and write equations of conic sections, and solve real-world applications.
- Use mathematical induction to prove a given statement or inequality.

- List terms of arithmetic, geometric, and recursively defined sequences, find the general term of a sequence, evaluate a series, write a given series in summation notation including a binomial expression using the Binomial Theorem, and solve real world applications.

V. Student's Expectations of the Instructor

- Office Hours:** The instructor will be available for 6 hours each week. The specific hours will be announced in class and posted in Canvas before the end of the first week of classes. The instructor will respond to email within 24-48 hours with the possible exception of weekends and holidays. Sending an email to your instructor is the fastest way to get a response.
- Learning Management System Usage Notification:** The student can expect the instructor to discuss the course layout in Canvas, and an explanation of how to access all course material therein such as the textbook, lecture notes, video instruction, reviews, and unit quizzes.
- Email/voicemail response time of the instructor:** The student should communicate with the instructor using the Canvas email system or the Gulf Coast State College email and can expect to receive a reply within 24-hour window except weekends, holidays, and college closure events. Additionally, the student may also call the instructor's extension and leave a voicemail, which will be answered when the instructor is in their office.

VI. EXPECTATIONS OF THE STUDENT

- Accountability:** The student will be held accountable for all material in this course. It is expected that the student is fully prepared for each test and taken on schedule date and time. This course should be viewed as a job. Attendance is necessary as well as attention to detail in order to be successful.
- ACADEMIC INTEGRITY:**
Honest participation in academic endeavors fosters an environment in which optimal learning can take place and is consistent with the college's mission. Academic misconduct, including cheating or plagiarism, is destructive to the spirit of an educational environment and therefore will not be tolerated. "Cheating" includes but is not limited to use of any unauthorized assistance in completing course work. "Plagiarism" includes, but it not limited to, the use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. Sanctions for incidences of academic misconduct, depending on the severity of the incidence and/or its repetition, may range from receiving an F grade (or zero) for the test, assignment, or activity, to failure of the course, to suspension or dismissal from the program or the college.
- GULF COAST MATH LAB (Tutoring help!) Online or face to face.**
The Math Lab is on the second floor of SUW rooms 260 and 261 and their operating hours can be found either in the link provided in your Canvas

course, on the college website, and on the math lab door. The Math Lab offers both face-to-face and online tutoring, please take advantage of this free service provided.

d. **Online Videos**

Course videos can be found in the Canvas course under each test material tab. If you miss a class, it is strongly encouraged that you watch these useful videos along with keeping up with any assignments for that section.

e. **Accessibility Statement**

Gulf Coast State College supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, reasonable accommodations can be arranged. Prior to receiving accommodations, you must register with Student Accessibility Services. Appropriate academic accommodations will be determined based on the documented needs of the student. For information regarding the registration process, email sar@gulfcoast.edu or call 850-747-3243.

f. **Recording of Lectures**

HOUSE BILL 233 RECORDING CLASSES In accordance with federal and state privacy laws, students may record class lectures for their own personal educational use, in connection with a complaint to the college, or as evidence in internal or external legal proceedings. Students may not publish or upload the recordings or any components thereof without the knowledge and written permission of the faculty member. Failure to obtain permission to publish could lead to the students' having to pay damages, attorney fees, and court costs. For more information about what can be recorded, please see the guidelines on pages 36-38 in the GCSC Student Handbook <https://www.gulfcoast.edu/current-students/student-handbooks/2021-2022-student-handbook.pdf>.

g. **Attendance and Withdrawal Policy**

ATTENDANCE: This course should be viewed as a job and therefore attendance is necessary, as well as attentiveness to detail and alertness. Regular attendance and participation are significant factors that help to promote success in college.

WITHDRAWALS: There are two types of withdrawals.

- STUDENT WITHDRAWAL – Students wishing to withdraw from the course must complete a withdrawal form and submit the form to the Office of Enrollment Services before the scheduled withdrawal deadline as published in the college catalog. The last day to withdraw from any class is to be determined but is usually the week following midterms. Withdrawals cannot be processed beyond that date.
- ADMINISTRATIVE WITHDRAWAL – Students who do not make academic progress in this course will be withdrawn. A mandatory introduction and at least one quiz must be completed within the first few days of the class opening for online classes or the student will

be withdrawn as a “NO SHOW”. A student missing two (2) tests can be withdrawn for failing to attend and make academic progress.

- CONSEQUENCES OF WITHDRAWALS: Two withdrawals are permitted per credit 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. It is your responsibility to verify the effects of enrollment and/or withdrawal upon your financial assistance.

h. **CLASSROOM CONDUCT POLICY**

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:

- Everyone is required to be in class on time.
Anyone entering the classroom after the instructor has begun class is late and is disruption to the class. The instructor must implement an appropriate policy to discourage late arrivals.
- Disciplinary action in the case of cheating will be administered in accordance with college policy.
As stated in the College Course Catalog “Honest participation in academic endeavors fosters an environment in which optimal learning can take place and is consistent with the college’s mission. Academic misconduct, including cheating and plagiarism, is destructive to the spirit of an educational environment and therefore cannot be condoned.” See the *Student Handbook* for details on this policy. Cheating will result in you receiving the grade of “F”.
- The student must have prior consent of the instructor before leaving the class early.
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, Chair of the Division of Mathematics.
- The instructor is not to allow talking or other inappropriate distractions to occur.
Talking or other disruptive behavior (including all electronic devices such as IPODS, Blackberries, cell phones, except approved graphing calculators) is a distraction to other students and has no place in a college environment. Students who engage in such behavior will be asked to stop. If the behavior continues, the student will be asked to leave and confer with Mrs. Reynolds, Chair

of the Division of Mathematics, concerning the nature of the behavior before being allowed back in the classroom.

- Only small snacks are allowed to be eaten in the classroom during class. Only Soda, coffee and water in a container closed with a lid is permitted in the classroom.
- Infractions of discipline may be handled by the instructor as final authority. The student has a right to appeal.

VII. Measure of Student Performance

- a. 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 **[everyone must take the final exam]**.
- b. Quizzes: There will be almost daily quizzes. The quizzes will be announced in advance, will count equally, and will be returned. The student is expected to keep up daily with the assigned work.
- c. Grading: The average of the five-unit tests will count 60% of your grade. The average of the quizzes will count 15% of your grade, and the comprehensive departmental final exam 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).
- d. Make Up Work: **No 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. **Six** quizzes will be dropped, the quiz average **will not** be replaced, and unit tests **will not** be dropped.