

CHATTAHOOCHEE TECHNICAL COLLEGE

SUMMER QUARTER 2008

COURSE: MAT 194 online - CRN: 10350

INSTRUCTOR: S. LUONG

PHONE: 770-528-4553 E-MAIL: sluong@chattcollege.com

COMMUNICATION ISSUES: Since this an online course, I prefer that you communicate with me through e-mail. Make sure that on the Subject line, you should always type: MAT 191 online – your name. If you don't hear from me within 48 hours, then give me a call.

OFFICE HOURS: ROOM # B209.10
M, T, W, Th: 9 AM - 10:00 AM and 3 PM - 4 PM

PREREQUISITE: MAT 191 with a C or better.

TECHNOLOGY REQUIRED: A computer with an internet connection (the faster the better). A variety of plug-ins will be installed on your computer when you register for the course. For registration, the website address is: www.coursecompass.com

TEXTBOOK: A Graphical Approach to Precalculus, 4th edition, Hornsby, Lial, Rockswold bundled with MyMathLab.

CALCULATOR: TI-84 plus, or TI-83 plus is required.

COURSE DESCRIPTION: This course prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay.

CHAPTERS TO BE COVERED IN THE TEXTBOOK: Chapter 1 (1.2, 1.3, 1.6); chapter 2 (2.5, 2.6); chapter 3 (3.2, 3.5, 3.6, 3.7); chapter 4 (4.1, 4.2); chapter 5 (5.2, 5.3, 5.4, 5.6); chapter 8 (8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7); chapter 9 (9.1, 9.2, 9.3, 9.4), and chapter 10 (10.1, 10.2, 10.3, 10.4, 10.5)

COURSE OBJECTIVES: After completing the course you should be able to do the following:

- a. Define a function, and determine: its domain and range; maximum and minimum values; increasing, decreasing, and constant intervals; end behavior; zeros and roots; and asymptotes.
- b. Transform functions.
- c. Graph functions both by hand and by using the graphing calculator.
- d. Solve: linear; exponential equations; and logarithmic equations.
- e. Solve application problems involving: linear equations; exponential equations; and logarithmic equations.
- f. Graph: linear functions; quadratic functions; rational functions; exponential functions; logarithmic functions; circular functions; and the trigonometric functions and their inverses.
- g. Perform operations on functions; find composite functions; and determine inverse functions.
- h. Define the six circular functions; determine their domain and range; graph the circular functions using amplitude, period, and phase shift.
- i. Define the six trigonometric functions and use them to solve right triangles.
- j. Solve application problems using: right triangles; law of sines and law of cosines.
- k. Use the fundamental trigonometric identities, sum and difference identities, and double- and half-angle identities to prove identities.

- l. Define a vector; find the components of a vector; perform operations on vectors; and solve application problems using vectors.
- m. Define a complex number; express complex numbers in standard, rectangular, polar, and trigonometric forms; graph complex numbers on the Argand diagram; perform operations on complex numbers; and use DeMoivre Theorem to find powers and roots of complex numbers.

COURSE REQUIREMENTS: To complete the course you must fulfill the following requirements:

- 1) Take all tests and the final.
- 2) Complete all homework.

PARTICIPATION AND ATTENDANCE: Please make certain that you log onto coursecompass.com once per day Monday – Friday so that you can keep up with the instructions and assignments. After midterm, I'm required to submit a list of students who are no longer attending the course. The definition of someone who has "stopped attending" for an on line course is a student who has not logged into the course in the past 14 days.

GRADING:	Homework	30%
	5 Tests	40%
	Final Exam	30%
	Total	100%

FINAL EXAM: will be taken at the Marietta campus. Time and location will be announced.

TESTING: Each test has a starting date and a due date. Failure to complete a test by the end of the due date will result in a zero for the test. The Final exam will be proctored on campus.

HOMEWORK: You must maintain an 80% correct rate before you can move on to the next set of homework. You can return to a homework assignment as often as you like (but not after the due date) to change the score to the minimum requirement. All homework assignments are due on the due date of the respective test. For example, all homework assignments from section 1.1 to 1.6 will be due on the same due date of chapter 1 test.

WORK ETHICS: In addition to the academic grade, you will receive a 2 (meets expectations) if you fulfill all the work ethics traits listed on the work ethics evaluation form.

WITHDRAWAL: You are completely responsible for your own withdrawal. See the below policy:
Through the end of the eighth (8th) week of the quarter, a student may drop part or all courses from his or her schedule. To withdraw from classes, a student must obtain a Withdrawal Form through the Registrar's Office, obtain the signature of the instructor, sign and date the form, and submit it to the Registrar's Office no later than the end of the eighth (8th) week of the quarter.

A student who stops attending a class but does not complete a Withdrawal Form and submit it to the Registrar's Office in the required manner will remain on the class roll and will be assigned a grade of F by the instructor of the class. It is the student's responsibility to complete and submit this form.

NOTICE FOR STUDENTS WHO STOP ATTENDING CLASSES:

- 1. STUDENTS must initiate withdrawal from a course(s) by completing the appropriate form through the STUDENT SERVICES OFFICE.
- 2. Instructors WILL NOT initiate withdrawal for students who stop attending any course(s). Withdrawal is a STUDENT option.
- 3. STUDENTS withdrawing from a course(s) after the drop/add period through the end of the 5th week of the quarter will receive a grade of "W."

4. STUDENTS withdrawing from a course(s) during the 6th, 7th or 8th week of the quarter will receive a grade of "WP" or a "WF."
5. STUDENTS who have not withdrawn or do not attend class after the end of the 8th week of the quarter WILL NOT be withdrawn by the instructor and WILL receive the appropriate letter grade (A, B, C, D, F, SC or U).

PLAGIARISM: Plagiarism is the representation of the ideas or writings of another as your own. The penalty for plagiarism may be failure of the course. Academic dishonesty includes cheating; plagiarism and providing false information to CTC may result in disciplinary action. (See page 37 of the catalog.)

EQUITY STATEMENT: Offensive statements regarding one's race, sex, creed, national origin, physical disability or mental disability are not appropriate. These statements may be considered a violation of the standards of conduct as stated in the current catalog on page 37, and may result in disciplinary action.

ACCOMMODATIONS: Students who need accommodations are asked to arrange a meeting with their instructor during the week of classes or as soon as possible. Bring a copy of your Accommodations Memo and an Instructor verification Form to that meeting. An Accommodation Memo may be obtained from the office of Disability Services, (770)-528-4529