

CHATTAHOOCHEE TECHNICAL COLLEGE

SUMMER QUARTER 2008

COURSE: MAT 190 (5 credit hours) - CRN: 10339

INSTRUCTOR: SON LUONG

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OFFICE HOURS: ROOM # B209.10

M,T,W,Th: 8 AM - 10:00 AM

PREREQUISITE: MAT 098 or placement by diagnostic testing.

TEXT: Elementary Mathematical Modeling - Functions and Graphs
Mary Ellen Davis & C. Henry Edwards - 2nd edition
Prentice Hall

CALCULATOR: A TI-83(plus) or TI-84(plus) is required.

COURSE DESCRIPTION: This course is designed as an alternative to College Algebra for those students who will not take Trigonometry, Precalculus, or Calculus. It is an applications-driven course that introduces functions using real world phenomena as models. The major topics include: fundamental concepts of algebra; linear, quadratic, polynomial, exponential, and logarithmic functions and models of real world phenomena; systems of equations; and additional topics in algebra.

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

- 1) Demonstrate the concepts of sets and set notation. Find complements, unions, and intersections of sets.
- 2) Compute the value of expressions using the laws of exponents.
- 4) Simplify radicals and use them in arithmetic operations.
- 5) Perform arithmetic operations on polynomials.
- 6) Identify all factors of algebraic expressions.
- 7) Perform arithmetic operations on rational expressions.
- 8) Graph first and second degree equations.
- 9) Define graphs and functions.
- 10) Find sum, difference, product, and quotient of functions.
- 11) Find the composition of two functions.
- 12) Find and/or graph the inverse of a function.
- 13) Solve linear equations
- 14) Solve rational equations with ratio and proportion when applicable.
- 15) Solve linear inequalities.
- 16) Construct linear models that describe real world phenomena. Solve and analyze linear models.
- 16) Solve quadratic equations.
- 17) Construct quadratic models that describe real world phenomena. Solve and analyze quadratic models.
- 18) Construct polynomial models that describe real world phenomena. Solve and analyze polynomial models.
- 19) Construct exponential models that describe real world phenomena. Solve and analyze exponential models.
- 20) Construct logarithmic models that describe real world phenomena. Solve and analyze logarithmic models.

21) Solve systems of linear equations with unknowns. Solve application problems involving linear systems.

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

- 1) Take all tests and the final.
- 2) Complete all homework.
- 3) Accumulate no more than three absences.

GRADING:

3 Tests	70%
Final Exam	30%
Total	100%

HOMEWORK: Selected homework will be checked on the day of each exam. A maximum of 5 points will be added per test.

MAKE-UP: If you cannot take a test, you MUST call my office and leave a message on the answering machine no later than the scheduled exam date. Failure to do so will result in a grade of ZERO on the test. A valid excuse with proof is required for taking a make-up test. Make-up tests must be taken one week from the scheduled date and can only be taken once.

ABSENCES: You are expected to be present for all scheduled classes. No more than three absences will be allowed. On the FOURTH absence, your work ethics grade will be changed from Meets expectations to Needs improvement.

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).

TARDINESS: You are expected to be present at the start of each class. Being late for more than 10 minutes without a valid reason will be counted as one tardy. Three tardies count as one absence. Returning from the break late or leaving before the end of class would count as one tardy.

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.

WORK ETHICS: A work ethics grade of 0, 1, 2, and 3 will be assigned to students in all courses. The work ethics grade will be displayed on the student's official transcript but will not affect the academic point average. The work ethics grade is designed to evaluate and encourage good work ethics.

WARRANTY: Any graduate of CTC who is deficient in a competency identified in the state program standard shall be retrained at the request of the employer at no cost to the employer or employee for tuition or instructional fees. This warranty is valid for 2 consecutive years following the student's date of graduation.

MAT 190 TENTATIVE COURSE SCHEDULE

Day 1 Algebra Review
Day 2 1.1, 1.2, 1.3
Day 3 2.1, 2.2
Day 4 2.2, 2.3
Day 5 2.4
Day 6 Review
Day 7 Test 1
Day 8 5.1, 5.2
Day 9 5.3
Day 10 6.3
Day 11 6.4
Day 12 Review
Day 13 Test 2
Day 14 3.4
Day 15 4.1
Day 16 4.3
Day 17 Review
Day 18 Test 3
Day 19 Review
Day 20 Final Exam

NOTE: THIS SCHEDULE IS SUBJECT TO CHANGE AT THE DISCRETION OF THE INSTRUCTOR.