

MCCC – Fall 2012 MAT 161 TC Precalculus I
Tuesday & Thursday 7:10 – 9:00 PM
Room PH 118
Office Mon - Wed 12:15 – 1:15 pm
Hours: Tues – Thurs 2:30 – 3:00 pm

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LAL: Tues – Thurs 1:30 – 2:30 pm

CATALOG DESCRIPTION

A comprehensive precalculus course which extends the material taught in MAT 100. Additional topics include: quadratic and absolute value, inequalities, binomial theorem, sigma notation, conic sections, theory of equations and complex numbers. A graphing calculator is required for class, homework, and testing. Classroom instruction and programs will be presented using a TI-84 +.

PREREQUISITES:

Math placement test—Level 2 recommendation, or MAT 100 with a minimum grade of "C"

LEARNING OBJECTIVES:

Upon completing this course, students should have the following knowledge and skills:

1. Graph linear, quadratic, and other algebraic functions with and without the use of a graphics calculator.
2. Use rigid and nonrigid transformations to graph functions.
3. Find combinations and compositions of functions.
4. Determine when an inverse function exists and how to find the equation of the inverse function.
5. Solve a variety of equations, both algebraically and graphically.
6. Understand complex numbers and their role in the search for zeros of a polynomial.
7. Recognize, graph and apply the basic conic sections.
8. Work efficiently with summation notation.
9. Expand Binomials via the Binomial Theorem.
10. Solve systems of equations with two or three variables and apply this skill to a variety of real-world problems.

LEARNING MATERIALS

Textbook: *Precalculus—A Graphing Approach*, 6th ed., Larson, Hostetler, Edwards. Houghton Mifflin, 2012.

Required Materials: TI-84+ Graphing Calculator. If a student has a TI-83+, they do not need to buy a TI-84+.

POLICIES:

1. There are no make-up exams or quizzes!
2. I will sign a withdraw slip up until the last class.
3. Students are expected to attend every class!
4. If a test is missed, the lowest test will count as two tests and the highest grade a student can receive, in this case, is a "C".
5. All quizzes are at the end of class.

GRADING:

There will be four (4) tests and a final exam. Each is worth 16% of the final grade. There will be twelve (12) quizzes (the top ten will be counted) and the quizzes will count for 16% of your grade. The final 4% of your grade will come from class participation and class attendance. If one test grade is lower than your final exam and a student has missed one or no classes, the lowest test will count only 8% of your final grade with the final exam counting 24% of your final grade. If Test #1, 2 or 3 is missed, your lowest test will count as 32% of your final grade. If test #4 is missed, a grade of zero will be issued. If a student misses a test, the highest score a student can receive is a "C".

EVALUATION OF GRADE:

$$92 - 100 = A$$

$$90 - 91 = A-$$

$$88 - 89 = B+$$

$$82 - 87 = B$$

$$80 - 81 = B-$$

$$78 - 79 = C+$$

$$70 - 77 = C$$

$$60 - 69 = D$$

$$\text{Below } 60 = F$$

CLASSROOM POLICY

1. Casual talking during class is not permitted, as it is a sign of disrespect toward the professor and other students. Students who engage in conversations will receive only one warning. If talking persists, the students' grades will be lowered by ONE GRADE LEVEL and he/she will be referred to the Dean's office for further disciplinary action.
2. If you are late to class, you must take a seat at the back of the room. Do not come to the front of the room once the lecture has started.
3. All cell phones must be turned off in the classroom.
4. **Missing the Final Exam will result in an automatic grade of "F" for the course.**

A few words about your responsibilities: As teachers our job is not only to teach you the subject matter but to prepare you for your entry into the working world as a student in this class, it is your job to be responsible for yourself. Just as in the working world, if you do not show up to work, you do not get paid. As in the working world, you have deadlines and due dates and so you will in this and all other courses. Please do not hesitate to contact me if you feel you are struggling with the course material. Use the Learning Assistance Lab in College Hall, my office hours, or your fellow classmates as resources to help facilitate your learning in this class. Mathematics is best learned by DOING. Keep up with the work on a consistent basis and that should help translate into having a successful term in this class.

SEQUENCE OF TOPICS

Chapter P

Test #1

Chapter 1 and Sections 10.1, 10.2 10.3

Test #2

Chapter 2 and Sections 8.1, 8.2, 8.3, 8.5, 8.6

Test #3

Chapter 3 and Sections 9.1, 9.5

Test #4

FINAL EXAM