Instructor: Kim Litz  
Email: vklitz@comcast.net (preferred); vlitz@tacomacc.edu (I don’t check this one as much.)  
Webpage: http://www.tacomacc.edu/home/vlitz/index.htm  
Office Hours: by appointment @ 4:30 (in 12-115) on Tuesdays and Thursdays  
Text: Contemporary Precalculus, a Graphing Approach, 5th edition by Hungerford  
WebAssign online homework subscription is optional (bundled with the textbook at the bookstore and sold separately)  
Calculator: A graphing calculator is required. The TI-83+ or TI-84+ Silver Editions are the recommended calculators; any TI-83, TI83+, TI84, or TI84+ graphing calculator, all of which are key stroke compatible, is acceptable. Only the TI-83/TI-84 will be supported in class. You may NOT use a graphing calculator app on your cell phone or tablet.  
Course Description: In-depth study of the concept of a function, including graphs, transformations, operations on functions, and inverse functions. General theory of functions is applied to the study of polynomial, absolute value, radical, rational, exponential, and logarithmic functions. First course in a two course sequence designed to prepare students for Calculus.  
Learning Objectives: The TCC Math Department has agreed on the following student learning objectives for Math 141. The abbreviation following each objective refers to the College-Wide Learning Outcomes: 1) Create, interpret, and analyze graphs and charts that communicate quantitative or relational information. 2) Determine, create, and use appropriate and reasonable mathematical constructs to model, understand, and explain phenomena encountered in the world. 3) Determine and carry out an appropriate algorithm to solve problems that are amenable to mathematical solutions. 4) Communicate mathematical information formally, using appropriate math notation and terminology, and informally by using everyday language to express ideas. 5) Use technology to analyze and solve mathematical problems and to effectively communicate solutions to problems, particularly those that cannot be solved efficiently by other means.  
Upon successful completion of this course, the student should be able to:  
1. Demonstrate an understanding of functions, function notation, and the properties of functions from the numerical, graphical, and symbolic perspectives. Apply this understanding to the study of linear, quadratic, polynomial, rational, radical, exponential, and logarithmic functions. (2, 4)  
2. Graph the above functions and their transformations. (1, 2)  
3. Carry out the algebra of functions and find the domain of the result. (2, 4)  
4. Describe and apply the relationship between algebraic changes in the rule of a function and geometric transformation of its graph. (1, 2)  
5. Solve polynomial, rational, radical, exponential, and logarithmic equations.  
6. Graphically determine if a function has an inverse, find the inverse algebraically, and demonstrate an understanding of the relationship between a function and its inverse. (1, 2, 4)  
7. Apply algebraic concepts to various physical problems. (2, 3)  
8. Write clear and complete solutions to mathematical problems, including correct notation and written explanations when appropriate. (4)  
9. Use a graphing calculator and/or computer software as appropriate. (5)  
Prerequisite: MATH 96/140 with a minimum grade of "C-" or appropriate math placement; READ-095 with a minimum grade of "C" or assessment above READ-095. If it should come to the instructor’s attention that you do not meet the prerequisite requirements, you will be administratively withdrawn from the class. There will be no exceptions.  
Required Materials: You should come to class every day prepared with 1) your textbook, 2) pencils and good erasers, 3) 8½ X 11 notebook paper, 4) graph paper (grid no smaller than 5 squares per inch), 5) small ruler or straight
edge, 6) 3 x 5 cards, and 7) a GRAPHING calculator. Graphing calculators are available for purchase in
the bookstore. They are available for rent from the MARC.

Course Requirements:

Grades will be based upon a number of factors, including homework, projects/writing assignments,
test/quizzes, and attendance/participation. These areas are detailed below:

1. Homework

PLAN TO SPEND AT LEAST 2 HOURS PER DAY, FIVE DAYS A WEEK ON HOMEWORK!
Each homework assignment will be worth 5 points. Answers to all odd problems are in the back of your
book, and you are expected to check your answers before turning homework in. I will scan your work
to check that all problems are done; that you are showing all the work done to obtain an answer; and that
you are working in a neat and organized manner. I am not as interested in your answer as in your
process. You are responsible for attempting every problem, re-working a problem until you get the
correct answer, and taking advantage of various resources (see “Helpful Links” on the web) to help on
problems of which you are unsure. Assignments are due at the beginning of class (usually the day after
they are assigned). If you are absent for any reason, reduced credit will be given for your late work. If
you are not absent, no late assignments will be accepted for any reason. Refer to the Homework
Guidelines for homework format expectations. Homework not following the guidelines will not receive
full credit. To account for any emergencies or illness, one homework assignments will be dropped.

2. Projects/Writing Assignments
One project will be assigned during the quarter. With any assignment calling for writing, the clarity and
accuracy of your writing is important: use of proper grammar, punctuation, and spelling is expected.
There may also be a number of in-class “mini-projects” that will be worth 2 to 5 points, that will be
worked on collaboratively.

3. Tests and Quizzes
We will have quizzes, exams and a comprehensive final exam. No tests or quizzes may be made up. All
assessments will be announced; there will be no “pop quizzes.”

4. Attendance and Participation
You are expected to attend class every day, arriving on time and remaining until the end of the period.
Repeated absences and/or failure to be in class for the entire period will be reflected in your grade. You
will be expected to participate in class discussions and group activities, and are encouraged to work with
your classmates on homework. This is referred to as “Group Work/TOLOPs” below. To account for any
emergencies or illness, one TOLOP’s will be dropped.

Grading:
The grading of each individual assignment or test will be based on your ability to demonstrate your
understanding of a given concept or skill. This can’t be done by just writing down the answer: all work
and/or steps must be shown. Problems just showing the “right answer” with no back-up work will not
receive full credit.

Your final grade will be based on the percentage of possible points obtained. The breakdown of your
grade by percentage is shown below.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Exams</td>
<td>25</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Project</td>
<td>10%</td>
</tr>
<tr>
<td>In-class Activities/TOLOPs</td>
<td>15%</td>
</tr>
</tbody>
</table>

The percent-to-letter-grade scale is as follows:

<table>
<thead>
<tr>
<th>Grade Symbol</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92.0-100</td>
</tr>
<tr>
<td>A-</td>
<td>89.5-91.9</td>
</tr>
<tr>
<td>B+</td>
<td>88.0-89.4</td>
</tr>
<tr>
<td>B</td>
<td>82.0-87.9</td>
</tr>
<tr>
<td>B-</td>
<td>79.5-81.9</td>
</tr>
<tr>
<td>C+</td>
<td>78.0-79.4</td>
</tr>
<tr>
<td>C</td>
<td>72.0-77.9</td>
</tr>
<tr>
<td>C-</td>
<td>69.5-71.9</td>
</tr>
<tr>
<td>D+</td>
<td>68.0-69.4</td>
</tr>
<tr>
<td>D</td>
<td>60.0-67.9</td>
</tr>
<tr>
<td>Below 60</td>
<td>Below 60.0</td>
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</tbody>
</table>
This scale may be altered at the instructor’s discretion, but will only be altered to the students’ advantage.

WITHDRAWALS/INCOMPLETES/S, U, V GRADES

TCC policy states that anyone can withdraw from a class by the 10th day of the quarter, IF the student fills out the necessary forms and turns them in to registration. After that, you need the instructor’s permission. THAT MEANS: you need to tell me your reasons for wanting to withdraw (warning: “I’m getting a bad grade.” is not reason enough to get a withdrawal). After the 55th calendar day, the instructor may withdraw you under special circumstances. In general, if you are receiving a C grade or better at the time of your request, a WI grade will be given if you have completed 60% of the coursework for the quarter. If your grade is lower than a C, an E grade will be given (exceptions may be made, depending on the circumstances). Students who simply stop coming to class will receive an E.

Incompletes will be given only in VERY RARE instances, which must be discussed with the instructor before the final. An “I” grade is reserved for students who have generally done well throughout the quarter but miss a small amount of work (say, the final) due to exceptional circumstances.

S/U grade requests must be processed through the registration office and meet their deadlines.

Classroom Structure/Etiquette:

1) The first 10-15 minutes of every class will involve group work on the previous day’s homework. You may ask your classmates for assistance on problems that you were not able to solve on your own. The instructor will be available during this time to answer questions your classmates are not able to answer.

2) Turn off cell phones, pagers, etc. If you are expecting an urgent call or page, please talk with the instructor prior to class.

3) Beverages are allowed in class, but please save food for after class. No tobacco products will be allowed in class.

4) Class will last the full time allotted. Do not start packing away your books until class is dismissed.

Make-up Work: As stated earlier, no tests or quizzes may be made up. You must talk with me at the earliest possible time you know there is going to be a problem, not after the fact.

Cheating: You may collaborate with others on homework, or on projects as specified, but you must give credit for any help received (this includes help from the tutoring center, math lab, etc.). You may NOT collaborate on exams and quizzes. Cheating on an exam, quiz, or project will result in zero points for the work. A second infraction will result in an E grade for the course. Refer to the TCC Academic Dishonesty Policy for more information about cheating.

Disabilities: If you have a physical, mental, or learning disability that you feel may require some form of accommodation, you must 1) have your disability documented with the TCC disabilities specialist (Counseling Center in Bldg 7), and 2) inform me of any necessary accommodations BEFORE they are needed. Documentation should occur within the first 2 weeks of class. Requests for accommodations without necessary documentation will generally be denied.

Help: A number of resources are available if you need additional help (refer to the “Resources for Help with Math” handout). Please make use of my office hours, listed at the beginning of this syllabus and take advantage of the MARC in building 19. The Writing and Tutoring center in Bldg 7 has tutors available to meet with you once or twice a week. If you know you are starting to get behind or feel lost, GET HELP! Once you truly are behind or lost, any help will generally be too late.

Study Groups: Study groups are one of the most valuable resources in a college class. I strongly encourage your participation. An effective study group has two to five members.

The information in this syllabus is subject to change.

Any changes may be made via class announcements.

Acknowledgement: Thanks to the TCC math department for sharing their syllabi and ideas on class organization.
HOMEWORK GUIDELINES

Please make certain that your homework is done in a professional manner. You will find that neat, concise work performed in homework assignments will lead to a better understanding of physical concepts and greater success in your math courses. These guidelines will be used in evaluating homework assignments for this course.

1. Place your NAME, the SECTION NUMBER, ASSIGNMENT NUMBER, and MY NAME in the top, right-hand corner of each page.

2. Use only 8.5 x 11 inch, ruled paper. Loose-leaf paper allows you the option of removing and inserting papers into a 3-ring notebook. Papers with jagged edges ripped from a spiral notebook will not be accepted (too messy!).

3. Show all work except where a short answer is necessary. Include sketches where necessary and label answers as appropriate. Homework will, from time to time, include writing, calculator, and/or computer work. When writing is required, it is expected that the work will include complete, meaningful sentences. Correct grammar and spelling will be considered; the correct spelling of mathematical terms is especially required. Problems that require a graph should be done on graph paper and then labeled “see attached” unless you choose to cut the graph out and paste it within your work.