Instructor: Carol Avery (you may address me as Mrs. Avery, Ms. Avery, or Carol)
Office: Bldg. 20, Room 6
Office Hours: M-Th 12:30-1:30 (or by appointment). Please make use of my office hours if you have any questions or need extra help with the course material.
Phone: 253.460.4429
e-mail: cavery@tacomacc.edu (I will make every effort to respond to email messages within a day of receiving them.)

COURSE DESCRIPTION: A general education course investigating quantitative reasoning and its applications and role in society. Topics may include graph theory, statistics, coding, game theory, symmetry, and geometric and numerical patterns. Mathematical theory combined with quantitative skills will be used in applications to a variety of problems encountered in mathematics and the world. A thematic approach may be taken in this course.

PREREQUISITES: MATH-097 or TMATH-100 or MATH-099 with a "C-" or better or assessment above MATH-099; READ-095 with a "C" or better or assessment above READ-095.

COURSE OVERVIEW: This is a course for the general college student satisfying the quantitative skills requirement for the TCC AAS degree. If your major will be either business- or science-related, you should consider these other courses: MATH 147 for business majors or MATH& 141 for science/engineering majors. MATH& 146 - Statistics; and PHIL& 106 - Symbolic Logic will also satisfy your quantitative skills requirement.

The successful Math& 107 student will be expected to attend class, read the textbook, do homework problems, do outside reading, and possibly view some video tapes. The student will work cooperatively with other students to produce quality work. Study groups are also encouraged. The student can expect to do quite a lot of writing, including at least one major paper. In addition, there will be at least one creative design required using tessellations and transformational geometry.

COURSE OBJECTIVES: The abbreviation following each specific objective refers to the College-Wide Learning Outcomes that TCC has identified to form the foundation of our educational emphasis: COM=Communication; CRT=Critical Thinking; IIT=Information and Information Technology; LWC=Living and Working Cooperatively; and COK=Core of Knowledge

Upon successful completion of this course, the student should be able to:
1. Discern and appreciate the use of mathematics in many facets of everyday life. COM/CRT
2. Use mathematical models to describe problems encountered in a variety of fields, including but not limited to management science, business, economics, the environment, or the visual arts. COM/CRT/COK
3. Use logic and critical thinking skills to read and analyze technical information found in magazines and newspapers and/or the internet. COM/CRT
4. Identify appropriate algorithms and correctly perform them in order to solve elementary problems that emulate some of modern society’s complex problems. COM/CRT
5. Create and interpret mathematical graphs and charts. COM/CRT/IIT/COK
6. Use technology as an analytic tool to model and solve problems.  COM/IIT
7. Write clear, complete, and understandable solutions to problems using correct mathematical notation.  COM/LWC/COK
8. Work in small groups on group problems or projects.  COM/LWC

**TEXT/MATERIALS:** *For All Practical Purposes, 7th edition*, Freeman. Supplemental packet.
- pencils
- colored pencils
- straightedge/ruler
- graph paper
- scissors (good pair with a sharp point)

**COURSE REQUIREMENTS:** Grades will be based upon a number of factors including homework/attendance/participation, projects/writing assignments, and exams, as detailed below:

1. **Homework, Attendance, and Participation.** Homework will consist of both individual and group work as outlined below. **Late homework will not be accepted for any reason.** Homework will consist of 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. When homework is collected, it is due at the beginning of the class period.
   - Exercises from your textbook will be assigned for each chapter (see the attached "Assignment Sheet"). You must work **NEATLY** and in **PENCIL**. Answers to odd homework problems are in the back of your book, and you are expected to check your answers. I will look over your work to see that you have completed all the problems, that you show all your work, and that you do your assignments in a neat and organized manner. After the first week, special group problems will be assigned (a group is made up of **3-4 people** and one assignment will be turned in **per group**).
   - For homework and group problems, I expect a neat, organized, thorough presentation including a written narrative. I encourage you to work not only with your group but with other students from the class. Research has shown that students who are most successful in college math and science courses are those who work routinely with other students. When grading these assignments I will not guess what you mean nor will I struggle to read or follow the work. I expect **quality** work!!
   - The percent of total homework/attendance/participation points will be worth approximately the equivalent of one test grade. You should expect to work on homework from one to two hours per day outside of class. It is to your benefit to keep up daily. Trying to cram the homework of several sections into one night or weekend will result in lack of understanding.
   - **GUIDELINE FOR WRITTEN ASSIGNMENTS:** ALL papers must be typed on a computer/word processor: double-spaced in 12 point Times New Roman font, with 1" margins.
   - **Attendance/Participation.** You are expected to attend class every day, arriving on time and remaining until the end of the period. Attendance will be taken each day, and you will receive one-half point per day of participation. (You may miss two classes without it affecting your attendance points.) The student must be in class the entire class period and participate in class activities to earn attendance points. Repeated absences and/or failure to be in class for the entire period will be reflected in your grade. Chronic absence is the primary cause of poor performance in a math
class. I expect you to participate in class discussions and group activities, and I encourage you to work with your classmates on homework.

2. Projects/Writing Assignments
One Finance Project involving computation and written analysis. Details will be given in class.

3. Exams
- Two 100-point hour-long exams
- One 150-point comprehensive final exam on Thursday, August 14.

GRADING: Your grade on each assignment or test will be based on your ability to demonstrate your understanding of a given concept or skill. You cannot do so by simply writing down the answer: to receive full credit, you must show all work and steps taken to find the answer. Your final grade will be based on the percentage of total possible points throughout the quarter. Although the exact number of points will not be determined until the end of the quarter, it will be very close to the following:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework/Attendance/Participation</td>
<td>100</td>
</tr>
<tr>
<td>Finance Project</td>
<td>100</td>
</tr>
<tr>
<td>Chapter Exams</td>
<td>200</td>
</tr>
<tr>
<td>Final Exam</td>
<td>150</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-93.9</td>
</tr>
<tr>
<td>B+</td>
<td>87-89.9</td>
</tr>
<tr>
<td>B</td>
<td>83-86.9</td>
</tr>
<tr>
<td>B-</td>
<td>80-82.9</td>
</tr>
<tr>
<td>C+</td>
<td>77-79.9</td>
</tr>
<tr>
<td>C</td>
<td>73-76.9</td>
</tr>
<tr>
<td>C-</td>
<td>70-72.9</td>
</tr>
<tr>
<td>D+</td>
<td>67-69.9</td>
</tr>
<tr>
<td>D</td>
<td>63-66.9</td>
</tr>
<tr>
<td>D-</td>
<td>60-62.9</td>
</tr>
<tr>
<td>E</td>
<td>0-59.9</td>
</tr>
</tbody>
</table>

This scale may be altered at the instructor’s discretion, but it will only be altered to the student’s advantage.

CLASSROOM STRUCTURE/ETIQUETTE
- The first 5-10 minutes of every class is reserved for questions involving the previous night’s reading/homework.
- Beverages are allowed in class but please save food for after class. No tobacco products will be allowed in class.
- Children are not allowed in class.
- A successful student is one who gives his or her full attention to the class session. Therefore, no listening devices (other than hearing aides) will be allowed during class.
- All cell phones and pagers must be put away and turned off during class time. Because ringing telephones are highly disruptive to both the instructor and the students, you will lose 2 attendance points for each time your cell phone or pager goes off in class.
- Class will begin promptly at 10:50 and last the full 90 minutes. Do not start packing away your books until class is dismissed at 12:20.
MAKE-UP WORK: No homework may be turned in late or made up. Make-up exams may be scheduled with prior approval in highly exceptional cases. If you are sick on the day of an exam, you must contact me via email or telephone before classtime.

CHEATING: I encourage you to collaborate with others on homework, or on projects as specified, but you may NOT collaborate on exams. Cheating on an exam or project will result in zero points for the work. A second infraction will result in an E grade for the course. For more information, refer to the TCC Academic Dishonesty Policy on p. 31 of the 2005-2007 College Catalog at <http://www.tacomacc.edu/resourcesforstudents/studentpolicies/administrativeprocedureforacademicdishonesty.aspx>.

WITHDRAWALS/INCOMPLETES/S,U,V GRADES: TCC policy states that anyone can drop a class on the college web site through June 24. After that you need to fill out an add/drop form and submit it to Registration and Records. 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. Otherwise, a V grade will be given. 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. After July 23, students no longer have the option to withdraw from a course.

Incompletes will be given only in VERY RARE instances, which must be discussed with the instructor before the final exam. 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 CONCERNS/DISPUTES. If you have questions or concerns about this class or me, please come to talk with me about your concerns. If we are unable to resolve your concerns, you may talk next with the Chair of the Math Department, Valerie Morgan-Krick. She can assist with information about additional steps, if needed.

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. 18) 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.

HELPS: Please make use of my office hours as listed on the front of this syllabus. If you would like to meet at a different time, please do not hesitate to contact me. In addition, a number of resources are available if you need additional help.

- Tutors are available at the Al Kwarizmi Math and Learning Center (MARC) in Bldg. 19, Room 22. Summer hours are: M-Th 8:00 am - 7:00 pm.
- The Tutoring Center has tutors available to meet with you for a scheduled ½ hour time slot once or twice a week (call 566-6032 for details).

If you know you are starting to get behind or feel lost, GET HELP!

The information in this syllabus is subject to change. Any changes may be made via class announcements.