MAT 155

Contemporary Mathematics

Course Description
This course includes techniques and applications of the following topics: properties of and operations with real numbers, elementary algebra, consumer mathematics, applied geometry, measurement, graph sketching and interpretations, and descriptive statistics.

Prerequisites: MAT 032, RDG 100 or appropriate placement score.

3.0 Cr (3 lect/pres, 0 lab, 0 other)

Course Focus
Upon satisfactory completion of this course, students should be able to perform the following tasks:

- Show knowledge of the application of basic Number Theory, including order of operations and evaluating expressions, rational numbers, properties of real numbers, scientific notation and decimal notation, and calculations with these.
- Perform operations in Elementary Algebra, including evaluating expressions, solving linear equations, ratios, proportions, and graphing linear equations.
- Apply Consumer Math & and Descriptive Statistics in general business applications.
- Use geometry in applications of the Metric System, Angles, Similar triangles, Polygons, Perimeter, Area, Surface Area, and Volume

Text and References
MyLabMath, Standalone Access Card (Inclusive Access) for Thinking Mathematically, 6th Edition, Robert F Blitzer. Pearson 2015. ISBN: 978-03211999-11. No purchase necessary! This is an Inclusive Access (IA) course, the cost of your e-text has already been added to your tuition. When you log into Blackboard on the first day of the semester, follow the instructions to access your pre-paid e-text.

Optional:
Core Curriculum Competencies
All course approved for the general education core curriculum help students develop communications skills and/or critical thinking.

- This course develops critical thinking skills through instruction that emphasizes the understanding of mathematical concepts and the ability to apply these concepts to solving a problem. This will be demonstrated by assessments at the end of each unit and on the common final exam. The student will demonstrate the following critical thinking objectives:
  - Solve linear equations and evaluate algebraic expressions, using mathematic principles in a logical process.
  - Interpret graphs of data and find major descriptive statistical measures for sets of data using mathematical principles in a logical process.
  - Use scientific notation to evaluate expressions, convert between metric and English measures, and compute simple and compound interest using mathematical principles in a logical process.

- This course develops communication skills through instruction that emphasizes the presentation of mathematical ideas in appropriate, clear, and precise mathematical language. The student will demonstrate the following communication objectives:
  - Graph linear functions, interpret the graphs, and explain their properties using clear, appropriate, and precise mathematical symbols and terminology.
  - Explain solutions to problems listed above using clear, appropriate, and precise mathematical symbols and terminology.

Course Goals:
The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives.

1. Understand Prime and Composite numbers
2. Calculations with Integers using the Order of Operations
3. Operations with Rational numbers
4. Application of Clock Addition
5. Evaluate algebraic expressions
6. Solve algebraic equations *
7. Solve proportions
8. Solve percent problems
9. Add, subtract, multiply and divide signed numbers
10. Calculate mean, median, mode and range
11. Analyze basic bar graph, histogram, circle, line graphs and pictographs
12. Convert US measures to metric and vice versa
13. Calculate perimeter, area and volume of geometric shapes
14. Differentiate different angles
15. Find angular measure
16. Compute complementary angles and supplementary angles
17. Modeling linear functions
18. Solve linear equations
19. Utilize formulas
21. Apply linear equations to problem solving
22. Solve linear inequalities
23. Find slope of linear equations
24. Find intercepts of linear equations
25. Graph linear equations in two variables
26. Work with the slope-intercept equation
27. Find equations of lines
28. Solve a system of equations graphically
29. Apply systems of linear equations to problem solving
30. Perform operations with exponents
31. Use scientific notation
32. Define functions, domain, and range
33. Work with polynomials
34. Add and subtract polynomials
35. Multiply polynomials

Student Contributions
A minimum of 6 hours per week should be spent outside of class to practice and prepare for the material covered in the course. Graphing Calculator (TI-83/84 preferred), Grid paper.

Course Evaluation
Your final grade will be obtained from the average of your homework and/or quizzes, unit tests, and final exam. The student must earn a grade of C or better in order to pass the course.

The grading scale is as follows:

90 - 100 = A
80 - 89 = B
70 - 79 = C
60 - 69 = D
Below 60 = F

Course Schedule
The class meets for 3.0 lecture/presentation hours per week.

STATEMENT OF NON-DISCRIMINATION
The Technical College of the Lowcountry is committed to a policy of equal opportunity for all qualified applicants for admissions or employment without regard to race, gender, national origin, age, religion, marital status, veteran status, disability, or political affiliation or belief.
ADA STATEMENT
The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8219 or (843) 525-8242 during the first ten business days of the academic term.

ACADEMIC MISCONDUCT
There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student’s responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the TCL Student Handbook, the Division Office, and the Learning Resources Center.

ATTENDANCE
The College’s statement of policy indicates that students must attend ninety percent of total class hours or they will be in violation of the attendance policy.

- Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.

- Students taking an online/internet class must sign in and complete an assignment designated by the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.

- Reinstatement requires the signature of the division dean.

- In the event it becomes necessary for a student to withdraw from the course OR if a student stops attending class, it is the student’s responsibility to contact the instructor via e-mail requesting to be withdrawn from the class. Withdrawing from class may have consequences associated with financial aid and time to completion. Students are strongly encouraged to consult with Financial Aid prior to withdrawing from any class, particularly if the student is currently on a warning or probation status.

- When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor MUST withdraw the student with a grade of “W”, “WP”, or “WF” depending on the date the student exceeded the allowed absences and the student’s progress up to the last date of attendance or

- Under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.

- Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.
A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.

A copy of TCL’s STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL) is on file in the Division Office and in the Learning Resources Center.

ONLINE ATTENDANCE PROCEDURE
For all online courses, students must complete an assignment designated by the instructor during the first week of classes. The instructor will drop the student from the course if the initial assignment is not completed.

Instructors will withdraw students from the class when 90% attendance is not maintained. Attendance in an online course is defined by regular course access and by timely completion of assignments as required by the instructor. Each student will be expected to access the web class at least once a week and complete 90% of assignments on time. Additional access is encouraged and may be necessary for successful completion of classes.

Failure to log in and complete assignments will result in the student being withdrawn from the course. The instructor will assign a grade of “W,” “WP,” or “WF” based upon the student’s academic standing as the last date of attendance, which is the last login. Students are responsible for any financial matters associated with an administrative withdrawal. If a fails to email the instructor (using the my.tcl.edu email account) requesting to be dropped from the course and has not submitted the initial assignment required during the first week of class, the instructor will assign a “Never Attended” code in the student information system (web-advisor) no later than ten calendar days after the first day of the class. Students who are dropped as a result of never attending the course are still responsible for all fees associated with the course.

HAZARDOUS WEATHER
In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVV 106.9, WLOW 107.9, WGRZ 104.9, WFXH 1130 AM, WLH 101.1, WSOX 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSBR TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. http://www.tcl.edu/current-students/text-alert

EMERGENCY TEXT MESSAGE ALERT
Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. Participants receive immediate notification of emergency events and weather cancelations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and announcements. Go to www.tcl.edu. On the homepage, click on “emergency TextAlert at TCL” and fill out the form or go to http://www.tcl.edu/current-students/text-alert

GRADING METHODOLOGY
The final grade must be 70 or more in order to pass the course and progress in the program. Students absent from an examination or presentation will receive a “0” grade for the examination unless other arrangements are made with the individual instructor prior to the examination or presentation day or on the examination or presentation day before the test/presentation is scheduled to be given.
The student is responsible for notifying the instructor for the reason of the absence. It is also the responsibility of the student to contact the appropriate instructor to arrange to make up the examination. Arrangements may be completed by telephone.

If the instructor is not available, a message should be left on the instructor’s voice mail AND with another member of the faculty or administrative assistant. The make-up exam will be scheduled and the instructor will decide the method of examination. Messages sent by other students are unacceptable.

SAFETY ADDENDUM

Purpose
The purpose of this safety addendum is to provide each student with safety guidelines during an incident, emergency, or disaster at TCL. In addition, it provides students guidelines for lockdown procedures, evacuation procedures, and active shooter.

Definitions
An incident is any event, potential or actual, that may impact normal operations but has no immediate health or life threatening consideration or serious effect on the overall functional capacity of the College. An event of this nature should be reported to the Office of the Vice President for Administrative Services. Also notify the off-site campus administrator if applicable.

An emergency is any incident, potential or actual, which may endanger life or health or which affects an entire building or buildings, and will disrupt the overall operations of the College. Outside emergency services will probably be required, as well as major efforts from campus support services. Major policy considerations and decisions will usually be required from the college administration during times of crises. An emergency should be reported immediately by directly using 911 if life or health/injury considerations exist and then to the Office of the President or Vice President for Administrative Services as quickly as possible. Also notify the off-site campus administrator if applicable.

A disaster is any event or occurrence that has taken place and has seriously impaired or halted the operations of the College. In some cases, mass personnel casualties and severe property damage may be sustained. A coordinated effort of all campus-wide resources is required to effectively control the situation. Outside emergency services will be essential. In all cases of disaster, an Emergency Control Center will be activated, and the appropriate support and operational plans will be executed. The disaster should be immediately reported, first by calling 911 and then to the Office of the President or Vice President for Administrative Services. Also notify the off-site campus administrator if applicable.

Types of Emergencies
- Hurricane
- Tornado
- Fire
- Biochemical or Radiation Spill
- Explosion/Bomb
- Downed Aircraft (crash which directly impacts campus operations)
- Utility Failures
- Violent or criminal behavior
- Psychological Crisis
Procedures:
Active Shooter

Building Evacuation
1. Building evacuations occur when an alarm sounds and/or upon notification by Security or the Emergency Director.
2. When the building evacuation alarm is activated during an emergency, individuals should exit according to the building evacuation plan and alert others to do the same.
3. Once outside, individuals should proceed to a clear area that is at least 500 feet away from the affected building. Streets, fire lanes, hydrant areas and walkways should be kept clear for emergency vehicles and personnel.
4. Individuals should not return to an evacuated building unless told to do so by Security or the Emergency Director.
5. Individuals should assist persons with disabilities in exiting the building. Elevators are reserved for disabled persons.

Campus Evacuation
1. A uniformed Security Guard, the Emergency Director, or an Emergency Resource Team member will announce evacuation of all or part of the campus grounds.
2. All persons (students and staff) are to immediately vacate the campus, or in the case of a partial evacuation relocate to another part of the campus grounds as directed.

Lockdown
1. Clear the halls
2. Report to the nearest classroom/office
3. Assist those needing special assistance
4. Ensure classroom/office doors are closed and locked
5. Turn off lights
6. Stay away from doors and windows (out of the line of sight)
7. BE QUIET and follow instructor’s directions
8. Silence cell phones
9. Wait for the “All Clear” before leaving