



## TECHNICAL COLLEGE OF THE LOWCOUNTRY

Technical College of the Lowcountry  
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### **CPT 213** **Advanced Visual Basic Programming**

#### **COURSE DESCRIPTION**

This course focuses on Windows programming using Visual Basic to create graphical user interfaces. The course examines forms, controls, graphical controls, loops, control arrays, database and traditional file processing, and application class scheduling.

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

#### **COURSE FOCUS**

This course is designed to provide the student with basic knowledge of how to use Visual Basic Studio.

#### **TEXT AND REFERENCES**

Refer to the TCL Bookstore page on the TCL Website for the most recent textbook information at [www.tcl.edu/bookstore](http://www.tcl.edu/bookstore)

**Software Requirement:** Visual Studio 2017; available as a free download for students. Go to <https://visualstudio.microsoft.com/downloads/> and choose the free Community version download.

**Computer Requirement:** Visual Studio will work on a PC only.

#### **COURSE GOALS**

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

1. Create If...Then Statements
2. Create If...Then...Else Statements
3. Create If...Then...Elseif Statements
4. Create Nested If Statements
5. Use logical operators in code
6. Validate data
7. Apply the use of counters and accumulators
8. Use loops to perform repetitive tasks
9. Use data tip with breakpoints in code

10. Set Web form properties
11. Build a Web form using ASP.NET 4.0
12. Use string manipulation methods in the String class
13. Add calendar, drop-down objects, combo box objects, and tables to a form
14. Create splash screens
15. Code a sub procedure
16. Code a function procedure to return a value
17. Create class-level variables
18. Catch an exception using a Try-Catch block
19. Pass an argument to a procedure by value
20. Pass an argument to a procedure by reference
21. Work with different types of arrays
22. Access array elements using a loop
23. Use multiple form objects
24. Read a text file
25. Use the For Each loop
26. Access variable objects on other forms
27. Use ADO.NET to connect to a database
28. Connect form objects to the data source
29. Bind database fields to a Windows Form object
30. Modify database records in a Windows Form object
31. Program beyond the Database Wizard
32. Create OleDbDataAdapter objects
33. Describe the three-tier program structure
34. Understand and create a class
35. Instantiate an object
36. Write a class constructor
37. Call a procedure in a separate class; call procedures found in a base class and a subclass
38. Code a base class and a subclass incorporating inheritance
39. Write over-ridable and overrides procedures
40. Create and write a comma-delimited text file
41. Find Web services and create a Web service connection
42. Call a Web service method
43. Create a Microsoft report
44. Display a report in a Windows Application

## **STUDENT CONTRIBUTIONS**

Each student will spend approximately 4 hours per week preparing for class and completing assignments to turn in weekly.

Each week students will turn in assignments/tests as specified on the Assignments page in Blackboard.

## **COURSE EVALUATION**

Final grades for this course are calculated as follows:

- Tests: 30%
- Assignments: 50%
- Final Exam/Project: 20%

## COURSE SCHEDULE

The schedule for this course is provided on the Assignments page in Blackboard.

Approved by: Kelli Boniecki Developed/Revised: May 2019  
Division Dean for Business & Industrial Divisions

### 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) 525-8228 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. Reinstatement requires the signature of the division dean.
- Students taking an online/internet class must sign in **and** communicate with 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 initiate and complete the necessary paperwork. Withdrawing from class may have consequences associated with financial aid and time to completion.
- 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.
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### **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 of the last date of attendance, which is the last login. Students are responsible for any financial matters associated with an administrative withdrawal. If a student 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 (Self-Service) 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, WWVW 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty, and staff are highly encouraged to opt in to the Emergency Text Message Alert System. [www.tcl.edu/textalert.asp](http://www.tcl.edu/textalert.asp)

### **EMERGENCY TEXT 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 cancellations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and announcements. Go to [www.tcl.edu](http://www.tcl.edu). On the homepage, click on "emergency Text Alert at TCL" and fill out the form or go to [www.tcl.edu/textalert.asp](http://www.tcl.edu/textalert.asp)

## Syllabus 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.

### Definition

**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
- Downed Aircraft (crash which directly impacts campus operations)
- Explosion/Bomb
- Utility Failures
- Violent or criminal behavior
- Psychological Crisis

### Procedures

#### **Active Shooter**

Run/hide/fight (<http://www.fbi.gov/about-us/cirg/active-shooter-and-mass-casualty-incidents/run-hide-fight-video> )

#### **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