CPT 242
DATABASE

COURSE DESCRIPTION
This course introduces database models and the fundamentals of database design. Topics include database structure, database processing, and application programs that access a database.

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

COURSE FOCUS
This course is designed to provide the student with basic knowledge of the fundamentals of database design and models.

TEXT AND REFERENCES
Refer to the TCL Bookstore page on the TCL Website for the most recent textbook information at www.tcl.edu/bookstore

Software: Microsoft Access 2016/Office 365

COURSE GOALS
The following list of course goals will be addressed in the course.

1. identify the elements of a database
2. explain the purpose of a database management system (DBMS)
3. open existing tables, queries, forms, and reports
4. creating tables, queries, forms, and reports
5. navigate existing tables, queries, forms, and reports
6. understand basic relational terminology
7. create keys; enforce referential integrity
8. apply the normalization process
9. explain functional dependency
10. write SQL statements for creating database structures
11. create SQL SELECT statements
12. write SQL statements for modifying and deleting data, tables, and constraints
13. understand the purpose of views
14. write SQL statements for creating and using views
15. understand the basic stages of database development
16. understand the purpose and role of data models  
17. construct ER diagrams  
18. validate data models  
19. transform ER data models into relational designs  
20. explain the need for denormalization  
21. create joins using SQL statements  
22. explain recursive relationships  
23. apply basic administrative and managerial database administrator (DBA) functions  
24. understand the need for concurrency control, security, and backup and recovery  
25. set up Web database processing  
26. apply basic Extensible markup Language (XML) concepts  
27. apply Online Analytical Processing (OLAP) and data mining concepts  
28. backup, restore, and compact a database  

STUDENT CONTRIBUTIONS  

This is an online course. Each student is expected to spend approximately 2-4 hours per week completing assignments/tests to turn in weekly as specified on Blackboard.  

COURSE EVALUATION  

Final grades for this course are calculated as follows:  
- Tests: 40%  
- Assignments: 40%  
- Final Exam/Project: 20%  

COURSE SCHEDULE  

The schedule for this course is provided 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.

- 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 withdrawal 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 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, WGOO 98.3, WGZO 103.1, WFXH 106.1, WVVV 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLWH 101.1, WSOK 1230 AM, WAVE 97.3, WTCV, 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

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 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 Text Alert at TCL” and fill out the form or go to 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
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