Computer Technology Department
Business and Technology Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Relational Database
Course Number: IST 272

READ THIS SYLLABUS CAREFULLY

You should read this syllabus carefully and ask your instructor about *any* aspects that you do not understand. The syllabus is an agreement between you and your instructor concerning course objectives, course content, grading, and other policies and procedures particular to this course. The following information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment I:

Each instructor will provide a supplement to this syllabus. The supplement will include: a week-by-week plan of instruction based on the section in which you are enrolled; your instructor's name, office hours and/or office location; and your instructor's contact information and recommended best methods to contact your instructor.

Attachment 2:

The Department responsible for developing and teaching has policies and procedures in place to assure quality instruction for all students. These are attached as "Departmental Policies and Procedures."

Attachment 3:

Please note that it is your responsibility to read the current Student Handbook included in Greenville Technical College's Catalog. (See website.) The Student Handbook addresses specific academic and student conduct policies and procedures. Excerpts from the Student Handbook representing the policies and procedures most often referred to in working with students are provided for your convenience as "Attachment 3."

Approved by: _____
Phillip Cluley, Department Head for Computer Technology
Phillip.Cluley@gvltec.edu (864) 250-8655, Barton Campus, Building 103/309

Approved by: _____ Date: _____
Joel D. Welch, Ph.D., PE
Dean, Technology Division

This syllabus will remain in effect until revised or reviewed no later than August 2016.

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Course Title: Relational Database
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Lecture hours per week: 3.0 **Lab/Clinic Hours:** **Semester credit hours:** 3.0

Prerequisites: CPT113 or CPT 101, MAT 102 or higher. Computer Technology students must obtain a minimum grade of "C" in all CPT and IST courses.

Catalog Course Description: This course provides a comprehensive foundation in both SQL and relational database design and implementation. Dynamic and embedded SQL programming techniques are emphasized. *Note: SQL Server is used.*

Purpose of the Course: To teach the student about database management system concepts and relational database design. Students will get practical experience creating, updating, and retrieving data from a relational database using interactive SQL.

Required text(s) and other materials:

1. Murach's SQL Server 2012 for developers; Bryan Syverson & Joel Murach; Murach; ISBN: 978 -1-890774--69-1

2. A portable storage device such as a flash drive will be needed for coursework storage.

3. NOTE: Students in traditional classes must access Blackboard for course-related information. Students in hybrid and online classes will access their online content through Blackboard.

4. A fully functional computer running a Microsoft operating system (Windows XP, Vista, Windows 7, or Windows 8) – The database management system used at home in the course is SQL Server 2012 Express With Management Tools. This software can be downloaded for free from the Microsoft website. If your computer is not capable of running SQL Server 2012 Express With Management Tools, you will need to use the ET 113 computer lab on the main campus to complete lab assignments and tests.

COLLEGE-WIDE STUDENT LEARNING OUTCOMES

1. Communication – Students will demonstrate the ability to use active reading and listening skills and to produce effective written and oral communication for varying audiences.

2. Information Technology and Technological Literacy – Students will demonstrate competency in using computer technology within a field of study.

3. Critical Thinking/Reasoning – Students will demonstrate the ability to apply the scientific method, mathematical processes, and research skills to analyze and solve problems/issues by using reflection and reasoning to justify conclusions.

4. Professional and Personal Responsibility – Students will demonstrate the ability to exhibit conduct, attitudes, and etiquette appropriate to the student's community and chosen career. Students will demonstrate the ability to manage time, to use effective interpersonal skills, and to display responsible behavior.

5. Diversity – Students will demonstrate the ability to recognize diversity and to demonstrate respectful conduct and attitudes toward all. Students will demonstrate the ability to explain how global issues impact life, work, and opportunities.

Revised December 31, 2012

COMPUTER TECHNOLOGY PROGRAM LEVEL STUDENT LEARNING OUTCOMES

Upon successful completion of the Computer Technology Degree students will be able to:

1. Install computer and network hardware.

2. Install computer operating systems and application software.

3. Design, create and test computer programming solutions.

4. Demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer assignments.

5. Analyze, troubleshoot, and correct computer related technical problems.

Revised August 2012

IST 272 COURSE OUTCOMES

Students who successfully complete this course will have demonstrated the skills required to accomplish the following objectives with a minimum competence level of 70 percent.

1. Demonstrate data manipulation language T-SQL knowledge by completing data manipulation language T-SQL labs.

2. Demonstrate data definition language T-SQL knowledge by completing a data definition language T-SQL lab.

3. Demonstrate understanding of data normalization by completing a data normalization lab.

4. Demonstrate an understanding of ERD diagrams by completing an ERD lab.

The objectives of the IST 272 course are intended to meet the CPT program level student learning outcomes.

IST 272 – MAIN TOPICS

PLAN OF INSTRUCTION:

TEXT

CHAPTER	**MAJOR TOPICS**

Chapter 1: An introduction to relational databases and SQL

Chapter 2: How to use the Management Studio

Chapter 3: How to retrieve data from a single table

Chapter 4: How to retrieve data from two or more tables

Chapter 5: How to code summary queries

Chapter 6: How to code subqueries

Chapter 7: How to insert, update, delete data

Chapter 8: How to work with data types

Chapter 9: How to use functions

Chapter 10: How to design a database

Chapter 11: How to create and maintain databases and tables with SQL statements

The instructor reserves the right to modify the Plan of Instruction by changing the sequence of text material or testing content.

IST 272 – COURSE SPECIFIC REQUIREMENTS

SPECIAL NOTE FOR ALL STUDENTS: Online students will be REQUIRED to come to the Barton Campus for two on-campus events. The first event will be an ET113lab assignment. The second event will be the final exam. The average duration of each of these events is anticipated to be three hours or less.

Assignments will require homework time which is spent in the lab in addition to the lab time indicated on the syllabus.

Tutoring is now available in the Business Division Student Lab located on the Barton Campus in the Engineering Building (#103), Room 113. The hours for tutoring are posted in the lab (ET 113); no appointment is necessary. There are no fees required for this service.

IST 272 – EVALUATION AND GRADING INFORMATION

GRADING POLICY

Twenty (20) percent of the final grade will be based on successful completion of lab / homework assignments including a two-page paper that discusses the use of SQL around the world.

Points will be deducted for the following on all lab assignments:

- Incorrect results.
- Documentation that is missing or incomplete.
- Documentation that is not neat, clean, or readable.

Sixty (60) percent of the final grade will be based on test grade averages.
Twenty (20) percent of the final grade will be based on the comprehensive final examination.

All assignments (i.e., labs, projects, research papers, etc.) for this course must be completed and submitted to the instructor by the due date established in order to receive credit for the assignment.

NOTE: ALL TESTS AND EXAMS ARE RETAINED BY THE INSTRUCTOR.

Final letter grades will be issued as follows:

A	=	90 - 100
B	=	80 - 89
C	=	70 - 79
D	=	60 - 69
F	=	0 - 59