Tompkins Cortland Community College

Master Course Syllabus

Course Discipline and Number: CAPS 133 **Year: 2021-2022**
Course Title: Advanced Databases **Credit Hours: 1**

Attendance Policy: *To maintain good grades, regular attendance in class is necessary. Absence from class is considered a serious matter and absence never excuses a student from class work. It is the responsibility of all instructors to distribute reasonable attendance policies in writing during the first week of class. Students are required to comply with the attendance policy set by each of their instructors. Students are not penalized if they are unable to attend classes or participate in exams on particular days because of religious beliefs, in accordance with Chapter 161, Section 224-a of the Education Law of the State of New York. Students who plan to be absent from classroom activity for religious reasons should discuss the absence in advance with their instructors. See college catalog for more information.*

Services for Students with Disabilities: *It is the College's policy to provide, on an individual basis, appropriate academic adjustments for students with disabilities, which may affect their ability to fully participate in program or course activities or to meet course requirements. Students with disabilities should contact the Coordinator of Access and Equity Services, to discuss their particular need for accommodations. All course materials are available in alternate formats upon request.*

Course Description

This course focuses on advanced concepts and techniques in the use of a relational database management program. Students will learn how to establish relationships and manipulate data in multiple tables using Access. Topics include enforcing referential integrity, linking multiple tables in queries, using forms with sub-forms, generating reports with grouping and sub-reports, using calculated controls in forms and reports, and creating switchboards. Students taking this course in an online format must have access to a computer with Microsoft Office. Prerequisites: CAPS 131; prior completion or concurrent enrollment in MATH 090, RDNG 116 and ENGL 100 if required by placement testing.
1 Cr. (2 Lec., 2 Lab. for 5 weeks) Fall and spring semesters.

Course Context/Audience

This is an advanced level course in the use of an electronic database and can be used to satisfy a CAPS or an unrestricted elective requirement. It is a required course in most computer-related degree programs and should be accepted for transfer toward major or computer literacy requirements at a four-year institution.

Basic Skills/Entry Level Expectations

Writing: WC College level writing skills are required. See course co-requisites or pre-requisites.
Math: M3 Taking MATH 095 (if needed) – Course requires the use of basic mathematical skills plus very limited basic algebra skills.
Reading: R3 Course may be taken concurrently with RDNG 116.

Course Goals

Upon successful completion of this course, the student will be able to:
1. Establish relationships between multiple tables in a database, enforcing referential integrity when necessary.
2. Create a variety of advanced queries, using multiple tables, conditions, calculated controls, and grouping.
3. Create forms with subforms to show 1:M associations.
4. Create reports with subreports, grouping, calculated controls, and conditional formatting.
5. Create a basic switchboard for a database.
6. Password protect a database.

Course Objectives/Topics

Objective/Topic	% Course
Establishing relationships between multiple tables	25%
Query development, including grouping, calculations, and action queries	25%

Creating forms with subforms and calculations	20%
Creating reports with subreports, grouping, calculations, and conditional formatting	20%
Creating a complete application with switchboards, protecting a database	10%

General Education Goals - Critical Thinking & Social/Global Awareness

CRITICAL THINKING OUTCOMES	**HOW DOES THE COURSE ADDRESS THE OUTCOMES** (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
Students will be able to ➢ develop meaningful questions to address problems or issues. ➢ gather, interpret, and evaluate relevant sources of information. ➢ reach informed conclusions and solutions. ➢ consider analytically the viewpoints of self and others.	Students will be introduced to common problem solving methodologies. They should be required to demonstrate problem solving approaches and preparation prior to developing a solution. Lab exercises should provide opportunities for students to practice and develop problem solving skills. Students will be introduced to online knowledge bases and shown techniques for implementing previously written modules. Students will be walked through demonstrations from start to finish that encompass all areas of the software development life cycle.
SOCIAL/GLOBAL AWARENESS OUTCOMES	**HOW DOES THE COURSE ADDRESS THE OUTCOMES** (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
➢ Students will begin to understand how their lives are shaped by the complex world in which they live. ➢ Students will understand that their actions have social, economic and environmental consequences.	Students will be presented with the concept of creating solutions to maximize efficiency of various common business tasks. Discussions of common business tasks and how software can contribute to streamlined functionality should be included. Handouts and assignments will be distributed or submitted electronically in order to conserve natural resources.

Instructional Methods

The course is designed to be taught in a lecture/lab format with approximately 2 hours per week of lecture and 2 hours of lab. The instructor should demonstrate specific techniques using database software, and provide examples of how databases can be used to provide meaningful information to the user. During lab sessions, the instructor should interact with students and assist them with problems they might have in completing the assignments. Web-based sections require that the instructor is available for questions any student may encounter.

Methods of Assessment/Evaluation

Method	**% Course Grade**
Lab Problems/Exercises	40 - 60%
Final Exam/Project	40 - 50%
Quizzes (optional)	<= 20%

Text(s)
Microsoft Access 2007, (Advantage Series), Juarez, Jon, © 2008 McGraw-Hill.

Bibliography
Microsoft Access 2003: Complete Concepts and Techniques, Shelly, Cashman, Pratt, and Last. Thomson/Course Technology, © 2005.

Microsoft Access 2003 Inside Out, Viescas. Microsoft Press, © 2003.

New Perspectives on Microsoft Office Access 2003 Comprehensive, 2nd edition, Adamski and Finnegan. Thomson/Course Technology, © 2005.

Other Learning Resources

Audiovisual No resources specified
Electronic Mous.net Internet site for Microsoft Office User Specialist Testing
Other No resources specified