SOUTHERN MAINE COMMUNITY COLLEGE
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South Portland, Maine 04106 Computer

Information Technology

Title: Database Fundamentals

Credit Hours: 3

Office Hours-Location: Available via email.
Chat online or Google call TBD

Catalog Number: CMIT 110

Total Contact Hours: 45

Instructor: Rebecca Test

Course Syllabus

Course Description

This course covers relational databases and systems commonly used in Information Technology. Topics include creating, query usage, and maintaining a database; reports, forms and creating a menu driven applications. Other topics include server-side systems in the IT industry. This course will utilize working in groups to emphasize how to plan, create and implement a project in the business setting. A student can expect to spend 4 hours on homework outside the classroom a week. Students registering for this course are expected to be familiar with the common functions of microcomputer operating systems and applications.

Co-requisite(s) MAT 050, ENG 075

Course Objectives/ACM Learning Outcomes

An ability to demonstrate core IT competency in database and information management

10. Describe the data management activities associated with the data lifecycle.

11. Diagram a database design based on an identified scenario.

14. Discuss issues relevant to dealing with very large data sets, both structured and unstructured.

15. Identify database administration tasks.

16. Produce simple database queries.

17. Use data analytics to support decision making for a given scenario.

An ability to function effectively as a member of a diverse team to accomplish common goals

42. Use communication, negotiation, and collaboration skills as a member of a diverse team.

An ability to read and interpret technical information, as well as listen effectively to, communicate orally with, and write clearly for a wide range of audiences

43. Describe the attitudes, knowledge and abilities associated with quality customer service.

44. Produce technical documentation responsive to an identified computing scenario.

45. Use documentation or a knowledge base to resolve a technical challenge in an identified computing scenario.

After successfully completing the course, the student will be able to:

1. Create a relational database using the database design process

2. Work as part of a team in designing a database using the database design process

3. Demonstrate relational databases and the use of unique identifiers.

4. Create reports, forms and queries in a database management system.

5. Create a menu driven database application using a database management system.

6. Describe server-side database systems and their uses.

PLEASE NOTE THAT THERE IS A NEW VM INFRASTRUCTURE THIS SUMMER. Course assignments may change based on the availability of the software. You will have a Microsoft Imagine account where you can download Microsoft Access 2016. The course videos were setup by the college and are taught using Access 2013. Most likely you will be using Access 2016 which is very similar to Access 2013. You should review the Blackboard assignments weekly. Please send an email if you have questions.

Weekly Learning Objectives

Week 1	Introduction to virtual learning Introduction to Client/Server Database systems Installing Access 2013 or Access 2016. **Note you may also use Access 2016 utilizing Office 365 for Education. This is completely free.** Introduction to a DBMS
Week 2	Chapter 1 - Level 1: Using Access 2013 to create a database -Discover and evaluate sources of existing data - Research sources of missing data - Assigning data to tables and use field types and sizes to define data
Week 3	Chapter 2- Level 1 -Review the database design -Create the database tables using the database design -Working in design view Quiz 1
Week 4	Chapter 2 – Level 2 -Create additional tables for the database -Import data into the database tables -Work with primary and foreign keys -Create one-to-many and many-to-many relationships between tables Use a sub datasheet to view related records
Week 5	Chapter 2 – Level 3 - Maintaining and Securing a Database -Learn about the role of a database administrator -Compact repair and backup a database -Secure the database from unauthorized use
Week 6	Chapter 3 Queries- Level 1 -Filter, sorting data -Create simple queries to answer business questions -Develop queries using comparison operators and wildcards -Display SQL view and analyze syntax Chapter 3 Queries- Level 2 -Design queries that compare one table to another -Refine table relationships by specifying the join type -Perform calculations in queries

	Chapter 3 - Level 3 -Calculate and restructure data to improve analysis -Make decisions in a query using immediate IF (IFF) function -Develop queries using SQL
Week7	Lab TBD Review for Task 2 Task 2 Additional Assignments TBD
Week 8	Chapter 4 - Level 1 -Design forms for efficient data entry - Develop a consistent user interface Chapter 4 - Level 2 LAB TBD
Week 9	Chapter 5 - Level 1 -Create and modify basic reports -Using groups and calculations in reports -Using design view with reports -Using multiple tables in a report - One-to-Many Relationships
Week 10	Chapter 6 - Level 1 -Automating using macros -the use of macros in menu systems Design Documentation Process - Not in the book -Working with clients in the design process
Week 11	LAB TBD Review for Task 3 Task 3
Week 12	Presentation of Final Projects

Course Requirements

Students will create one final project to be presented or submitted the last week of the semester. Three hands-on tests in the form of a task will be given during scheduled class times. Generally, one hands-on assignment/lab will be due each week in class and one reading quiz.

Student Evaluation and Grading

Tasks	30%	A	93 - 100	C+	77 - 79
Assignments/Labs	20%	A-	90 - 92	C	73 - 76
Reading Quizzes	15%	B+	87 - 89	C-	70 - 72
Final Project	25%	B	83 - 86	D+	67 - 69
Attendance/Discussions	10%	B-	80 - 82	D	63 – 66
				F	62.999

Text, Tools and / or Supplies

Succeeding in Business with Microsoft Access 2013: A Problem-Solving Approach ISBN-13: 978-1285077581 or ISBN-10: 128507758X

For a Face to Face course you should always have a notebook for taking notes and a writing instrument. And please always bring your sense of humor!

Attendance/Participation Policy – On-Line
A student attending an on-line course must login to Blackboard in the first week of the semester and submit an introduction in the Discussions board. Not logging in will result in being recorded as a no-show and you will be dropped from the class.   Not submitting the weekly assignment or participating in the weekly discussion will result in an absent for the week. 3 or more consecutive absences will result in an automatic failure. 4 or more absences will be recorded as a zero in Participation/Attendance portion of your grade and may result in academic failure.

Attendance Policy – Face-to-Face or Hybrid
Regular attendance whether it is in class or on Blackboard will contribute to your success in this class. Not logging to Blackboard within the first two weeks of the semester and submitting Assignment 1 will result in being recorded as a no-show and you will be dropped from the class.   Not logging into Blackboard at least once per week and submitting the assignment will count as an absent. 4 or more absences will be recorded as a zero in Participation/Attendance portion of your grade may result in academic failure.

End-of-Course Evaluation
Students complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal. Students can access the course evaluations beginning one week before the end of classes. The deadline for submission of evaluations occurs Monday at 5 p.m. following the last day of the class. You will receive an e-mail to your student e-mail account when course evaluations are available.

ADA Syllabus Statement
Southern Maine Community College is an equal opportunity/affirmative action institution and employer. For more information, please call (207) 741-5798. If you have a disabling condition and wish to request accommodations in order to have reasonable access to the programs and services offered by SMCC, you must register with the Disability Services Coordinator, Sandra Lynham, who can be reached at 741-5923. Further information about services for students with disabilities and the accommodation process is available upon request at this number. Course policies about online testing are modified to suit each individual's accommodations.

The Learning Commons:
The library, tutoring and writing centers, and open study space are located on the second floor of South Portland's Campus Center and in the Midcoast's LL Bean Learning Commons and Health Science Center. Here you can find free academic support through individual and online tutoring, information literacy/research librarians, and professional academic strategy/planning mentoring. There are many

desktop and laptop computers as well as printers, reserve textbooks, and other academic tools available for use within the Learning Commons. Services are offered by appointment or as drop-in assistance. To access services, visit My Learning in My Maine Guide. Students consistently report that the Learning Commons is an inviting and friendly place to seek academic support or study. Those who make use of the Learning Commons regularly have been shown to be more likely to succeed—take advantage of this exceptional resource for this, or any of your classes.

SMCC Pay-for-Print Policy

Each semester students receive a $20 printing credit. The balance resets at the end of the semester and any remaining credits are removed. The College's pay-for-print system monitors printing on all printers (including those in general access labs, library printers, Tutoring Services, Campus Center Lounge and technology labs). Be sure to log OUT of the system when you've finished your printing, to prevent unauthorized access to your account. Students can check the number of pages they have printed by using the Printing Balance tool available on SMCC computers (located in the lower right corner of the screen, near the clock). Departments with work study students who need to print documents for the department should contact the Help Desk at 741-5696 to have a special account set up. To find ways to reduce your printing charges, please go to the IT Help tab on My SMCC. If you have questions about the pay-for-printing policy or your printing charges, please contact the Help Desk at 741-5696 or send an e-mail to helpdesk@smccme.edu.

Refunds

Print jobs are eligible for a refund in the event of mechanical or electronic error on the part of the printer, print server, or software used to submit the job. Jobs are not eligible for a refund in cases where the job was not set up correctly, was submitted multiple times, or the student is not satisfied with the result. To request a refund, please bring the offending print to the IT Department in the basement of the Ross Technology Center. Refunds will be granted in the form of a credit to the student's account.

Add-Drop Policy

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

Withdrawal Policy

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the Fall and Spring semesters and the second through ninth week of twelve-week Summer courses. This period is pro-rated for shorter-length courses, usually 75 percent of course meeting times; please check with the Registration Office. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Registration Office. This process must be completed either in person or by using SMCC e-mail accounts.

Plagiarism Statement

If an instructor suspects that a student has knowingly committed a violation defined in the Maine Community College System Policy on Student Grade Appeals and Academic Misconduct, the instructor has the authority to review the alleged misconduct and determine the grade that the student should receive for the assignment and the course. The instructor may assign a failing grade for the assignment or course and may require the student to complete additional work for the course. The instructor may consult with the department chair and/or the College's chief academic officer prior to making such decisions. If a student seeks to challenge an instructor's determination, the student should submit a grade appeal. Grade appeal forms are available in the Advising Office on the South Portland Campus or in the administrative offices in the Learning Commons on the Midcoast Campus. An instructor may also refer the matter to the College's disciplinary officer for review under the procedures of the MCCS Student Code of Conduct