

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY ITE 150 DESKTOP DATABASE SOFTWARE (3 CR.)

Course Description

Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Course topics include database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels. This course covers MOS Access certification objectives. Lecture 3 hours per week.

General Course Purpose

This course is designed to provide student with a working knowledge of a major microcomputer database program. Emphasis is on the functional rather than the technical approach to understanding, using, and managing electronic database management systems.

Course Prerequisites/Corequisites

None

Course Objectives

Upon completion of this course, the student will be able to:

- a) Plan, define and use databases
- b) Perform queries
- c) Produce reports, tables, forms and mailing labels

Major Topics to be Included

- a) Creating and Using Databases
- b) Creating and Modifying Tables
- c) Creating and Modifying Queries
- d) Creating and Modifying Forms
- e) Viewing and Organizing Data
- f) Defining Relationships
- g) Producing Reports
- h) Integrating with other Applications

Student Learning Outcomes

Creating and Using Databases

- a) Identify and describe database techniques (relational, hierarchical, etc.)
- b) Describe microcomputer DBMS fundamentals, capabilities, limitations, applications and problems
- c) Describe the features of the database window
- d) Plan and define a database structure (tables and fields)
- e) Create a databases using database software
- f) Open a database objects in multiple views
- g) Move data among records in a database
- h) Add formatting to a datasheet

Creating and Modifying Tables

- a) Create and modify a database table
- b) Add records to a table
- c) Add a predefined input mask to a field

- d) Create Lookup fields to view information stored in a table
- e) Modify table field properties
- f) Specifying referential integrity and validation rules to view records in a table
- g) Print the contents of a table

Creating and Modifying Queries

- a) Create queries in Design view
- b) Include fields in the design grid
- c) Use text and numeric data in criteria
- d) Save a query and use the saved query
- e) Create and use parameter queries
- f) Use compound criteria in queries
- g) Sort data in queries
- h) Join tables in queries
- i) Searching the database
- j) Add calculated fields to Select queries
- k) Perform calculations and calculate statistics in queries
- l) Create crosstab queries

Creating and Modifying Forms

- a) Create and use a form
- b) Display a form
- c) Modify form properties
- d) Create a form from a query

Viewing and Organizing Data

- a) Enter, edit and delete records
- b) Create queries
- c) Sort database records
- d) Create an index for a record
- e) Create a filter for a record

Defining Relationships

- a) Recognize the need for and work with multiple databases
- b) Combining and summarizing tables

Producing Reports

- a) Produce and print formatted reports from database records
- b) Modify a report in Layout view
- c) Create a report from a query

Integrating with other Applications

- a) Interchange data with other applications
- b) Creating and using OLE objects
- c) Export data from a query into another application

Required Time Allocation per Topic

In order to standardize the core topics of ITE 150 so that a course taught at one campus is equivalent to the same course taught at another campus, the following student contact hours per topic are required. Each syllabus should be created to adhere as closely as possible to these allocations. Of course, the topics cannot be followed sequentially. Many topics are taught best as an integrated whole, often revisiting the topic several times, each time at a higher level. There are normally 45 student contact-hours per semester for a three credit course. (This includes 15 weeks of instruction and does not include the final exam week so $15 * 3 = 45$ hours. Sections of the course that are given

in alternative formats from the standard 16 week section still meet for the same number of contact hours.) The final exam time is not included in the time table. The category, Other Optional Content, leaves ample time for an instructor to tailor the course to special needs or resources

Topic	Hours	Percentage
Creating and Using Databases	5	11%
Creating and Modifying Tables	5	11%
Creating and Modifying Queries	6	14%
Creating and Modifying Forms	5	11%
Viewing and Organizing Data	5	11%
Defining Relationships	6	14%
Producing Reports	5	11%
Integrating with Other Applications	5	11%
Testing to include quizzes, tests, exams	3	6%
Total	45	100%