North Central
Michigan College

NCMC MASTER COURSE SYLLABUS FOR YEARS 2001-2003

DIVISION/AREA: Business and Technology   DEPARTMENT: CIS

DIVISION DIRECTOR: Robert J. Marsh, Ph.D., P.E.   ORIGINATOR: Joe Palm

DEAN OF INSTRUCTION: Timothy Dykstra, Ph.D.

TOTAL HOURS OF INSTRUCTION: LECTURE: 2   LAB: 2   TOTAL CONTACT HOURS: 70.4

COURSE NUMBER: CIS110   CREDIT HOURS: 3

COURSE TITLE: Database Management

TRANSFERABLE   YES: (Dependent on Institution)   NO: TO:

PREREQUISITE(S)/COREQUISITE(S)/ADVISORY:
CIS 100

CATALOG DESCRIPTION:
An introduction to PC relational databases.   Students will learn sound database design principles including normalizing procedures and will define and manipulate actual multiple file databases. They will perform common database operations such as sorting, indexing, querying, creating reports and data screens, writing SQL and building macros.   Students should be skilled in file management within Windows and use of Windows' accesories; if not, these skills should first be acquired in CIS 120.

GENERAL EDUCATION OUTCOMES:
- Think critically and analytically
- Independently acquire knowledge
- Write and speak effectively

COURSE OBJECTIVES & OUTCOMES:
- Design programs using OOED tools, pseudocode and flowcharts
- Correctly code Visual Basic programs of 50-200 lines using good interface design, values of properties and code that makes use of variables, constants, procedures, sequence, selection and repetition structures, menus, dialog boxes, error traps, random and sequential files, databases and arrays.

● Document programs in a professional fashion

METHODS OF INSTRUCTION:
Lecture
Demonstration
Hands-on tutorials
Internet based materials
Student programming

METHODS OF EVALUATION:
Tests: 50%
Database assignments: 50%

REQUIRED TEXTS AND MATERIALS:
- TEXTS:
  - Pratt, Philip & Adamski, Joseph. (2000).Concepts of Database Management. Cambridge. Course Technology
  - Adamski, Hommel, Finnegan. (2000). New Perspectives on Microsoft Access 2000 Comprehensive. Cambridge. Course Technology
- SUPPLIES:
  - Fourteen 3.5" 1.44M floppy disks or three LS-120's. (You need at least six for the second session of class.)
  - A plastic sleeve for turning in your disks with assignments
  - Scantron 882 sheets for online testing system backup

OPTIONAL SUPPLEMENTARY MATERIALS:

Reasonable accommodations may be provided for students with documented physical, sensory, cognitive, systemic, and/or psychiatric disabilities. Please contact the Education Opportunity Program (EOP) at (231) 348-6687 to arrange services for this course.

TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

Week	Topic	Have Read	Prepare for Today	Asgn. Due Today
1	Course goals; lab environment;	syllabus Certifications (MOUS)	(Print out Exercise 1 below)	Fill out questionnaire
	Introduction to database	C: Chap 1	Exercise 1	N: Disk prep from AC1.02; Backup
2	Introduction to Access 2000	N: Tutorial 1	Exercise 2	
	Maintaining a database	N: Tutorial 2 (part of Asgn #1)		
3	Relational Model / the relational algebra; QBE	C: Chap 2 N: 8.42-8.45-joins Relational Algebra	Exercise 3	
	"	"	Exercise 4	
4	Querying a database	N: Tutorial 3(part of Asgn #1)		
	Relational Model: SQL; Visdata	C: Chap 3		
5	"	"		
	Relational Model: Advanced	C: Chap 4 Codd's 12		
6	SQL via macros	(Use N: 9 for macro reference, but don't work through it yet)		Asgn#1 (N:2-3)
	Microcomputer DMBS's	Visit links noted by instructor		
7	Creating forms & reports	N: Tutorial 4		

	"	"		
8	Advanced Queries & Custom Forms	N: Tutorial 5 (see notes)		
	"	"		
9	Design I: Normalization	C: Chap 5		Asgn 2 (C:4 & N:4 & some N:5: N:9 as reference)
	"	"		
10	"	"		
	Midterm Exam	C: Ch 1-5; N: Tutorials 1-5		Asgn3 (N:5)
11	Customizing & Integrating Access	N: Tutorial 6		
	Design II: Methodology	C: Chap 6, 132-156		
12	"	C: Chap 6, 132-156		Asgn4 (C:6 & N:6)
	WWW & Hyperlinks	N: Tutorial 7		
13	Design II: Methodology	C: Chap 6, 157-191		Asgn5 (C:6)
	ER Studio			
14	Lab session			Asgn6b (N:7)
	Briefcase Replication; Query Wizards & Action Queries	N: Tutorial 8(see notes)		Asgn X (C:6)

15	Automating Tasks with Macros Functions of a DBMS	N: Tutorial 9 C: Chap 7		Asgn7 (N:8)
	DBA	C: Chap 8		
16	Final Exam	C: Ch 6-8 N: Tutorials 6-9		Asgn8 (N:9)
	Wrapup			

APPROVED FOR ADOPTION BY THE CRD/AP COMMITTEE ON _____