

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: ISM 4212

COURSE TITLE: Database and Physical Design

PREREQUISITE(S): CTS 2437

COREQUISITE(S): None

CREDIT HOURS: 3

CONTACT HOURS/WEEK: 4

CONTACT HOUR BREAKDOWN:

Lecture/Discussion:	3
Laboratory:	1
Other _____:	

FACULTY WORKLOAD POINTS: 3.7

STANDARDIZED CLASS SIZE ALLOCATION: 24

CATALOG COURSE DESCRIPTION:

This course is designed to familiarize individuals with the process of developing a comprehensive database application. The objective is to build a working knowledge of database design and implementation, software development, and the query and reporting components of the application.

SOFTWARE REQUIRED FOR
TEACHING THIS COURSE:

M.S. SQL Server Database
M.S. Visual Studio Suite

SUGGESTED TEXT(S):

Murach's ADO.NET 3.5 LINQ and the Entity Framework with VB 2008 (2009), Anne Boehm, Mike Murach & Associates, Inc.
ISBN: 978-1-890774-52-3

IMPLEMENTATION DATE:

Spring Term, 2010 (20102) Proposal 2009-21

REVIEW OR MODIFICATION DATE:

COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Introduction to Database Programming	3
II. Introduction to ADO.NET 3.5	3
III. Data Sources and Datasets	3
IV. Bound Controls and Parameterized Queries	3
V. Dataset Designer	3
VI. Connections, Commands, and Data Readers	3
VII. Parameters and Stored Procedures	3
VIII. Database Transactions	3
IX. Object Data Source	3
X. Payable Entry Application	3
XI. Student Project User Interface and Class Diagram	3
XII. Student Project Business Classes	3
XIII. Student Project Database Classes	3
XIV. Student Project Forms	3
XV. Student Project Reports	3
XVI. Laboratory Projects (15 hours of SQL Server database projects will be accomplished throughout the course.).	15

PROGRAM TITLE: Information Technology Management

COURSE TITLE: Database and Physical Design

CIP NUMBER: 11.1099

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

01.0 DEMONSTRATE PROFICIENCY IN DEVELOPING A DATABASE --The student will be able to:

- 01.01 Build a relational database.
- 01.02 Query, display, and format data.
- 01.03 Save, retrieve, and run queries.
- 01.04 Build and format reports.
- 01.05 Group and summarize data.

02.0 DEMONSTRATE PROFICIENCY IN CREATING AN APPLICATION USING DATA SOURCES AND DATASETS FOR RAPID APPLICATIONS DEVELOPMENT--The student will be able to:

- 02.01 Work with Data Sources and Datasets.
- 02.02 Work with Bound Controls and Parameterized Queries.
- 02.03 Work with Dataset Designer.

03.0 DEMONSTRATE PROFICIENCY IN DEVELOPING THREE-LAYER WINDOWS FORMS APPLICATIONS--The student will be able to:

- 03.01 Work with Connections, Commands, and Data Readers.
- 03.02 Work with Parameters and Stored Procedures.
- 03.03 Work with Database Transactions.
- 03.04 Work with Object Data Sources.
- 03.05 Understand the components of a complete Accounts Payables application.
- 03.06 Create a complete Database application from scratch.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

<i>Section 1</i>	
COURSE PREFIX AND NUMBER: ISM 4212	SEMESTER CREDIT HOURS: 3
COURSE TITLE: Database and Physical Design	

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

AA Elective AS Required Professional Course College Prep
 AS Professional Elective AAS Required Professional Course Technical Certificate
 Other BAS
 General Education: (For General Education courses, you must also complete Section 3 and Section 7)

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

Communication Social & Behavioral Sciences Mathematics
 Natural Sciences Humanities

Section 4

INTELLECTUAL COMPETENCIES:

Reading Speaking Critical Analysis Quantitative Skills Scientific Method of Inquiry
 Writing Listening Information Literacy Ethical Judgment Working Collaboratively

<i>Section 5</i>	
LEARNING OUTCOMES	METHOD OF ASSESSMENT
• Design SQL Server Databases	Authentic Learning Activities
• Use Entity-Relationship modeling for DB design	Exams or Project Assignments
• Create Visual Studio .NET data entry screens	Exams or Project Assignments
• Create SQL Server reports and queries	Exams or Project Assignments
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Section 6

Name of Person Completing This Form: Professor Steve Mannion