WILMINGTON UNIVERSITY
COLLEGE OF TECHNOLOGY
MASTERS OF SCIENCE - INFORMATION SYSTEMS TECHNOLOGIES
BASIC COURSE INFORMATION

Course Title: Database/Web Design Integration
Course Number: DSN 6060

I. RATIONALE

The development of data driven web sites requires a variety of database options. This course will present different web programming languages and techniques covering the basics of SQL databases. Additionally, we will cover relational database concepts, data modeling, stored procedures, records, transactions, exception handling, and security. Using SQL (Structured Query Language) and Cold Fusion Markup Language (CFML), students will learn server-side scripting to perform processing such as data collection, storage, retrieval, and searches.

II. MAJOR INSTRUCTIONAL GOALS

GOAL A: To learn the concept of Structured Query Language (SQL)

Learning outcomes: The student will:

A-1 Demonstrate the knowledge of database applications
A-2 Demonstrate the ability to add, modify and delete data through Data Manipulation
A-3 Demonstrate the ability to create, write, sort & filter SQL queries

GOAL B: To learn to develop data driven pages

Learning outcomes: The student will:

B-1 Demonstrate the use of accessing databases, displaying database query results and data drill down interfaces.
B-2 Build truly dynamic statements and form processing
B-3 Demonstrate the use of form data validations both server side and client side
B-4 Develop and manage a project

GOAL C: To learn to plan and build an application

Learning outcomes: The student will:

C-1 Demonstrate the ability to customize Look and Error Messages, and use application variables
C-2 Demonstrate the ability to work with sessions, cookies, client variables, session variables and security
C-3 Demonstrate their ability to build reusable components through custom tags
GOAL D: To learn how to improve and enhance user site experience and developer performance

Learning outcomes: The student will:

D-1 Demonstrate the use of JavaScripting
D-2 Demonstrate graph and animation component integration
D-3 Demonstrate the use of E-commerce through storefronts, shopping carts, payment processing and interacting with email.

III. SUPPLEMENTAL OBJECTIVES

Upon completion of this course, students will be able to:

- Build and use forms to accept and manipulate user input
- Set up the Cold Fusion development environment
- Use Cold Fusion Markup Language to store/output values
- Define OBDC drivers to interact with database tables
- Use Cookies, Client and other variables
- Use JavaScript to perform client side validation
- Employ Java to integrate data-driven controls
- Apply tags to generate and receive mail
- Create database reports using Cold Fusion
- Develop interactive, database-driven Web applications

IV. CLASS PARTICIPATION:

Students are expected to attend class and participate actively and in a positive way. Questions and relevant observations are encouraged and enrich the experience of the entire class.

Computers in the classrooms are intended to be used as tools to enhance the students' learning experience. Instant messaging, gaming, emailing, and surfing the web are distractions to the student, the surrounding students, and the instructor and constitute inappropriate behavior. Students are ethically obliged to avoid these and similar practices.

V. CLASS SCHEDULE - OUTLINES – READINGS:

A “structured external assignment” will constitute the closing activity for this course. Students will be asked to submit a topic for instructor approval that integrates IT concepts discussed in class into the student’s vocational or educational interests or workaday environment. Ideally, a “planning paper” will result that is topical, and possesses significant utility within the student’s job-related responsibilities or educational/vocational interests.

Instructor will include weekly outline to reflect what has to be achieved by the student in the 5 hours Out-of-Classroom project (Structured External Assignment) including submission deadline and grading criteria.

Semester = 15 weeks with a reading week at Week 8
Blocks = 7 weeks, with a Reading Week between Blocks I and II.

The syllabus must reflect which preliminary reading all students should complete during the week prior to the start of the course.

Note: Grades are due five (5) working days after your last class session and are to be submitted directly to the registrar.
Note: A cooperative and participative learning strategy will be deployed with every expectation that the student will contribute heavily, in a self-directed action-learning mode, to this educational experience. Students should anticipate that assignments, and this syllabus, will be adjusted to match the pace of the course, the class size, and to meet the needs of individual students.