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DEREE COLLEGE SYLLABUS FOR:

CS 3425 WEB APPLICATIONS DEVELOPMENT – LEVEL 6   **UK Credits: 15**
(Updated Fall 2010)

PREREQUISITES:	CS 1070 Introduction to Information Systems
	CS 2179 Business Information Systems
	CS 2188 Introduction to Programming
	CS 3260 Fundamentals of RDBMS

CATALOG DESCRIPTION: Server-side technologies of Active Server Pages (ASP) and ASP.NET. Application of connectivity issues with databases. Web server management. Hypertext Preprocessor (PHP) essentials.

RATIONALE: Modern information systems necessitate the implementation of web-based applications. The course provides the knowledge and skills necessary to create dynamic web applications, and prepares students for relevant advanced courses in computer technologies.

LEARNING OUTCOMES: As a result of taking this course, the student should be able to:

1. Comprehend and propose Web Application infrastructure.
2. Apply client/server communication techniques such as server, application, session variables, cookies and server behaviours.
3. Determine the needs for web database and connectivity.
4. Apply code reuse with templates, libraries, and snippets.
5. Evaluate several alternatives in the design of a web application.
6. Develop a functional web application.

METHOD OF TEACHING AND LEARNING: In congruence with the learning and teaching strategy of the College, the following tools/activities are used:

- Lectures, class discussions, and review of real-world cases based on specific theoretical concepts. Laboratory sessions, involving training and practice in developing web applications.
- Office hours held by the instructor to provide further assistance to students.
- Use of the Blackboard site to further support communication, by posting lecture notes, assignment instruction, timely announcements, and online submission of assignments, but also as a live example of a web application

ASSESSMENT:

Summative:

Project: requirements analysis/application development/documentation	**50**
Final Examination (2-hour): short answers to essay questions, programming problems	**50**

Formative:

Coursework: case problems	**0**

The formative assessments aim to shape teaching along the semester and prepare students for the summative assessments.
The project tests Learning Outcomes 1-6.
The final examination tests Learning Outcomes 1-5.

(Guidelines and assessment rubrics are distributed on the first day of classes along with the course outline.)

INDICATIVE READING:

REQUIRED READING:
Ralph F. Grove PhD, Web Based Application Development, ISBN-13: 9780763759407, 2010

RECOMMENDED READING:
- Joseph W. Lowery, Adobe Dreamweaver CS5 Bible, ISBN: 978-0-470-58586-3, May 2010
- Learning PHP, MySQL, and JavaScript: A Step-By-Step Guide to Creating Dynamic Websites (Animal Guide) by Robin Nixon and Nixon Robin (Paperback - Jul 22, 2009)

COMMUNICATION REQUIREMENTS:

Daily access to the course's site on the College's Blackboard CMS. Effective presentation skills using proper written and oral English. Communicate and coordinate during development activities.

SOFTWARE REQUIREMENTS:

Web Server (Internet Information Services, Apache)
Macromedia Dreamweaver
SQL Server, MySql
PHP

WWW RESOURCES:

http://www.wdvl.com

http://www.web-savant.com/asptut/servers.asp

http://webdesign.about.com

http://www.aspin.com

http://www.w3schools.com

http://www.php.org

http://forums.apress.com/

http://webdeveloper.com/

INDICATIVE CONTENT:

1. Part I Basics
    1.1. Internet and Web Protocols
    1.2. Client-Server Architecture
    1.3. Web Software
2. Part II Development Technologies
    2.1. HTML
    2.2. Active Server Pages
    2.3. VBscript
    2.4. Databases
    2.5. Interfacing with Databases
    2.6. Web Application Components
        2.6.1. Authentication, User Registration
        2.6.2. Searching
        2.6.3. Uploading content
        2.6.4. Emailing
3. Part III Design Principles
    3.1. Web Application Design
    3.2. Performance and Reliability
    3.3. Web Application Infrastructure