**CIT 3301: INTERNET APPLICATION PROGRAMMING (45 CONTACT HOURS)**

**Prerequisite:**

**Course Purpose**

This course provide student with knowledge and skills in developing interactive web sites, integrating client applications and server side applications.

**Learning Outcomes**

By the end of the course the student should be able to:

1. Apply client-side scripting language to construct an interactive web page.
2. Apply server-side scripting language to link a form to a web server.
3. Demonstrate skills in building systems that can integrate a web application and a database.

**Course Description**

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| **Week** | **Topic** | **Sub-topic** |
| 1 | **Introduction** | * Introduction * Systems Architecture * Network Architecture * Software Architecture |
| 2 | **HTML overview** | * Html concept * Text formatting tags * Lists, tables, links and graphics |
| 3 | **Introduction to client-side scripting language** | * Introduction to JavaScript * JavaScript syntax * Variables, operators, Input, output |
| 4 | **client-side scripting language control statements** | * Branching control statements * Iteration Control statements |
| 5 | **client-side scripting language functions** | * In-built function * User-defined functions |
| 6 - 7 | **Document Object Model** | * DOM Hierarchy * Object * Properties * Methods * Form validation and manipulation |
| 8 | **Introduction to server-side scripting language** | * Introduction to server side application * Variables, operators, control statements |
| 9 | **Form – Server side connection** | * GET/POST * Connect html form to server-side scripting language |
| 10-11 | **Connect Server-side scripting language to a database** | * Connect to a database * Open a database * Insert data to a database * Read from a database |
| 12 -13 | **Internet Application Programming trends** | * Working with web services |

**Client-side scripting language** – JavaScript

**Server-side scripting language –** PHP, ASP, Java

**Database systems -** Mysql

**Teaching Methodologies**

Lectures, assignment, practical and tutorial sessions in Computer Laboratory, individual and group assignments, exercises and project work

**Instructional Materials/Equipment**

Overhead projector and computer, handouts, white boards, appropriate application software and internet.

**Course Assessment**

30% Continuous Assessment

70% Main Examination.

**Core Textbooks**

1. Geelen J. R (1999). Computer Basic: An Introduction to the Internet, Everything Simple.Com Ventures, ISBN-13: 978-0968483619

2. Rose T.M. (1993). An Introduction to Internet Management, Second Edition, New Jersey: Prentice Hall, ISBN-13: 978-0131772540