**BIT 3105 Web Systems and Technologies II (3 CU)**

**Course Description:**

This course reviews some of the more advanced features of the

Internet and electronic. This unit provides the principles and skills of web application

Development. It arms students with current web programming technology and the skills for

developing web oriented applications. Topics covered are web development, from a web page to a web site, types of servers and architectures for web sites.

(b) **Aims:** This course reviews some of the more advanced features of the Internet and electronic. This unit provides the principles and skills of web application development. It arms students with current web programming technology and the skills for developing web oriented applications.

(c) **Learning Outcomes:** On completion of this course unit, the students will be able to:

• Acquire knowledge on the psychology, planning and transmittal of business information;

• Study the principles and practices of business report writing required of men and women in business, industry, education and government;

• Understand the creative and functional aspects in understanding the problem, gathering and organizing data, and presenting reports for management, employees and the public.

**(d) Teaching and Learning pattern:** The teaching and learning approaches will combine classroom lectures, discussions and group activities, quizzes and take home assignments. A group project shall form part of the coursework. The material presented in class will overlap that of the text but will contain additions and variations

**(e) Indicative content:**

• Web development approaches and architectures;

• Security, performance, scalability, and maintainability of the different web development approaches

• Web-enabled databases

• Dynamic web pages for B2C and B2B sites

• Web security and legal issues

• Projects will be prototype business systems which include dynamic database access.

Graphical design issues;

• Client-side programming and server-side programming;

• Web services and servers,

• Emerging technologies,

• Standards and Standard Bodies

• Web information architecture

**(f) Assessment method:** Assessment will be in terms of tests and practical exercises (40 %)

and a final examination (60%)

**(g) Reference Books:**

• Instant HTML Programmer’s Reference, Alex Homer, Chris Ullman & UsefulSteve Wright, Wrox, 1998, 1-861001-56-8

• Internet & World Wide Web – How to Program, H.M.Deitel, P.J.Deitel & T.R.Nieto, Prentice

Hall, 2000, 0-13- 016143-8

• XML – How to Program, H.M.Deitel, P.J.Deitel, T.R.Nieto, T.M.Lin & P.Sadhu, Prentice

Hall, 2000, 0-13-028417-3

• Website: W 3 Schools: [www.W3C.com](http://www.W3C.com/)

• XML – How to Program, H.M.Deitel, P.J.Deitel, T.R.Nieto, T.M.Lin & P.Sadhu, Prentice

Hall, 2000, 0-13-028417-3

• Data Mining: Concepts and techniques: Jiawei Han and Micheline Kambler, Morgan

Kaufmann

• [www.blackboard.mak.ac.ug](http://www.blackboard.mak.ac.ug/)

• W 3 Schools: [www.W3C.com](http://www.W3C.com/)