

# Business Internet Technologies and Services

## Module guide

2014/2015

**Module Title:** Business Internet Technologies and Services

**Module Code:** BB7007

**Level:** M

**Module availability:** MSc Business Information Technology

### Lecturers

<b>Name</b>	<b>Room</b>	<b>Email</b>	<b>WWW</b>
Barry Avery	209	B.Avery@kingston.ac.uk	<a href="http://www.barryavery.com/blog/teaching">www.barryavery.com/blog/teaching</a>

Barry Avery will take lectures and labs during this course.

### Aims And Objectives

This course aims to provide a theoretical understanding and practical competence in the techniques of structured systems analysis and design applied to the new and emerging fields of Business Internet Systems. Students should be able to identify the characteristics, limitations and applicability of a variety of development approaches to systems distributed via the Internet.

Students who complete the course should be able use a structured development approach in order to design and implement an Internet based system. Students will see the use of Relational, Object and Semi-Structured data models (XML) and their use in representing information to enable it to be accessed and used by software and services.

### Learning Outcomes

At the end of the module students should be prepared to:

- Be able to analyse a system and produce an appropriate specification
- Choose and apply an appropriate development methodology to a problem specification
- Understand and use the relational, object and semi-structured data model
- Generate an internet based solution using standards, scripting languages, database designs and web services
- Be aware of new and emerging trends and concerns in technology, such as Web Services and Semantic Web technologies.

## **Indicative Syllabus**

System Development strategies and methodologies: Assessing the appropriateness of a system/methodology to the development of an internet based systems; Business Internet Models; Open Source;

Design: Using UML with the relational and object model; normalisation; web implementation interface

Technologies: Database query and programming techniques; tools for Web based systems; Mark-up languages and XML

Document and data modelling: DTDs; Transformation Technologies; Web Services and REST

New and emerging technologies: Web based systems implementations; new mark-up languages; cloud technologies

As this is the first time this module has been taught, there may be variation in the list above. A week by week schedule will be available with all the teaching materials used on the module web site.

## **Approach to Teaching and Learning**

The course will consist of lectures, case studies, tutorials and lab sessions. The primary aim being to balance theory with practical application. Lectures will normally be used to cover the theoretical underpinnings of the subject, whilst tutorials and Lab sessions will develop this knowledge into applicable skills. Students will use a combination of tools and development environments to gain first hand knowledge of the techniques and tools available to aid in systems development.

## **Assessment**

Two individual lab based tests (worth 35% together), a portfolio of the work, exercises and tasks you perform during the module (30%) and a group project (35%). More information about this is given online and during the course itself.

## **Indicative Reading and teaching materials**

The main course text is:

Connolly T. and Begg C. (2010) Database Systems, Addison Wesley, 5<sup>th</sup> Ed.

The following texts will be referenced during the course – you are not required to buy any of these (although you may find that if you are serious about fully learning a particular subject area, then you may wish to add them to your bookshelf). There are copies of these in the LRC.

Paul Albitz and Cricket Kiu, (2001) DNS and BIND, O'Reilly, 4<sup>th</sup> ed.

Simon Garfinkel and Gene Spafford, (2002), Web Security and Commerce, O'Reilly, 2<sup>nd</sup> ed.

Leon Shklar and Richard Rosen, (2003), Web Application Architecture, Wiley

Rasmus Lerdorf, Kevin Tatroe (2002), Programming PHP

There are many books on the technical aspects of this course (such as the server side scripting and database work). It is worth investigating the Safari bookshelf to which the University subscribes – the full content of many of these books is available over the web for free. Note that you must be using a computer connected to the University infrastructure for this to work.

Other references and materials will be given throughout the course. A complete run down of materials is available from the web site

Materials for this module will be under the Business Internet Technologies hyperlinks @ [barryavery.com](http://barryavery.com) – you do not need to access *studentspace* to get these materials