

BSc (Hons) Web and Multimedia Development (Top- Up) - LC 301E

1. Objectives

The main objective of this programme is to provide students enrolled on the Diploma in Web and Multimedia Development of the University of Mauritius a route to complete the Bachelor degree. It prepares the students for a career in information technology with particular emphasis on the development of multimedia applications for web broadcasting and/or stand-alone diffusion. Graduates of this programme can also choose career paths in other IT related fields as well as pursuing higher education at Master's level.

2. General Entry Requirements

As per General Entry Requirements for admission to the University for Undergraduate programmes or any other qualifications acceptable to the university.

3. Programme Requirement

The Diploma in Web and Multimedia Development of the University of Mauritius or any other qualifications acceptable by the University.

4. Minimum Requirements for Awards

Degree Award

A student will be awarded a BSc (Hons) Web and Multimedia Development provided she/he satisfies the following minimum requirements.

The student needs to satisfy 48 credits (in addition to the 63 credits earned at Diploma level) for the award of the Degree which also includes a project of 9 credits.

5. Programme Duration

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The programme is going to be offered on a flexible, blended mode with a DEOL (Distance Education/Online) component of over 60 %. The 40% will be face to face tutorial classes. Students will therefore be allowed to enrol on part-time basis (minimum duration 2 years).

	Minimum	Maximum
Degree (Full-Time)	1 (Year) (2 Semesters)	3 (Years) (6 Semesters)
Degree (Part-Time):	2 (Years) (4 Semesters)	4(Years) (8 Semesters)

6. Credits per Year

For full-time students: Minimum 18 credits, Maximum 48 credits, subject to regulation 5.

For part-time students: Minimum 12 credits, Maximum 24 credits subject to regulation 5

Semester modules to be registered for on a semester basis. Yearly modules to be registered for only once at the start of the module, normally at the beginning of academic year.

7. Assessment

Continuous and written assessment of modules

Each module will be assessed over 100 marks (i.e. expressed as %) with details as follows (unless otherwise specified):

Assessment will be based on written examination and continuous assessment. The continuous assessment will carry 30% of total marks except for the following modules:

	Continuous Assessment	Exams
LLC 3000Y: Web Engineering	50%	50%
LLC 3300Y: Visual Programming Techniques	60%	40%
LLC 3600Y : Cartoon-based Animation Tools	70%	30%
LLC 3500Y: Media Capture, Processing and Publishing	70%	30%

Continuous assessment may be based on laboratory work and/or assignments and should include at least two class tests (one per semester) for yearly modules. For semester modules, there will be at least one class test. For a student to pass a module, a minimum of 40% should be achieved in that module. For the above four modules, a minimum of 30% needs to be achieved in the exam.

9. List of Modules – BSc (Hons) Web and Multimedia Development (Top-Up)

Module Code and Name	Mode	Credits
Core		
LLC 3000Y : Web Engineering	DEOL	6
LLC 3100Y : Object-Oriented Software Development	DEOL	6
LLC 3300Y : Visual Programming Techniques	DEOL	6
LLC 3200Y : Web Server Deployment, Administration and Security	DEOL	6
LLC 3600Y : Cartoon-based Animation Tools	DEOL	6
LLC 3500Y : Media Capture, Processing and Publishing	DEOL	6
LLC 3400 : Project		9
Electives		
LLC 3800 : E-Commerce Technologies	DEOL	3
LLC 3700 : Strategic Business Information Technology	DEOL	3
LLC 3900 : Information Technology Law, Professional Code of Conduct and Ethics	DEOL	3
LLC 3810 : Networking Concepts	DEOL	3

10. Programme Plan

The programme is mainly offered on a yearly basis with all the core subjects being 6-credit modules. Furthermore the students will have to choose one elective of 3 credits that will be offered in the first semester of the programme.

11. Outline Syllabus

CORE

LLC 3000Y- WEB ENGINEERING (6 CREDITS)

Overview of web engineering concepts. Web v/s software engineering. Web engineering as a discipline. Web Processes. Web Requirements Modeling. Web Systems Design, Disciplines and Methods. Web Systems Implementation and Technologies. Evaluation of Web Systems and Applications. Web Systems Quality and Security Issues.

LLC 3100Y - OBJECT-ORIENTED SOFTWARE DEVELOPMENT (6 CREDITS)

Overview of Object-Oriented Techniques. Use-Cases, Class Models, State Diagrams, Sequence Diagrams. CASE Tools. From Design to Implementation. Object Concepts and Java. Java Objects and Development. Core Java Programming Concepts. Java Classes and Objects. Interfaces and Inheritance. Graphical User Interfaces. Graphics. Exception Handling. File Handling and Databases.

LLC 3200Y - WEB SERVER DEPLOYMENT, ADMINISTRATION AND SECURITY (6 CREDITS)

Networking Concepts (IP Address, URL, DNS, SMTP, POP3). Overview of Web Servers. Proprietary and Open-Source Web Servers. Essential and Desirable Properties of Web-Servers. Web Server Parameters. Configuration File. Hosting Constraints. Backup Procedures. Web Server Directives. Web Server Security. Encryption. Types of attacks on Web Servers.

LLC 3300Y - VISUAL PROGRAMMING TECHNIQUES (6 CREDITS)

Introduction to Visual Programming Concepts. Overview of Windows Programming. An introduction to Visual C++ and VB.NET Environments. Application Framework – MFC library — Event Handling. DLLs. ActiveX and OLE. Database Management with Microsoft ODBC MFC ODBC classes. Web Clients. Mobile Applications.

LLC 3600Y - CARTOON-BASED ANIMATION TOOLS (6 CREDITS)

Introduction to Cartoon Animation. Script Writing Process and Storyboarding techniques and tools. Animation using vector, bitmap, symbols, pegs, 3D space, camera, morphing, and lip Synch. Special Effects. Animation Software for Cartoon. Interactive Animation. Character and Personification Concepts in Cartoon Based Animation.

LLC 3500Y - MEDIA CAPTURE, PROCESSING AND PUBLISHING (6 CREDITS)

Introduction to the different types of Digital Media. Introduction to Digital Imagery. Learning about the Digital Photography. Understanding the Different Settings of the Digital Camera. Introduction to Digital Video. Basics of Video & Sound Editing. Synchronising your videos. Understanding Video Compression and Compression Formats. Exporting your Media.

LLC 3400 - PROJECT (9 CREDITS)

This involves the use of advanced and well-defined methodologies to develop a web-based interactive system, a multimedia intensive application or a small anime-based film supported by a well-documented report. The project will be demonstrated in a practical examination.

ELECTIVES

LLC 3800 - E-COMMERCE TECHNOLOGIES (3 CREDITS)

E-commerce v/s E-Business. Technology Infrastructure and Architecture. Data Encryption Techniques. Types of e-commerce technologies. Platforms for e-commerce. Open-source e-Commerce Applications, Configuration and Deployment.

LLC 3900 - INFORMATION TECHNOLOGY LAW, PROFESSIONAL CODE OF CONDUCT AND ETHICS (3 CREDITS)

Governance of cyber-space. The concept of Cyberlaw. Issues related to IT and Privacy. Data Protection. Intellectual Property Issues. Copyrights, Patents and Trademarks. IT Contracts. Employment issues and IT Law. Computer Crimes and related offences. Ethics and IT. Professional Code of Conduct of IT Professionals. Information Security. Introduction to IT Outsourcing and related issues.

LLC 3700 - STRATEGIC BUSINESS INFORMATION TECHNOLOGY (3 CREDITS)

Application Portfolio. IS/IT Strategic Analysis. Business Environment. Strategic Framework. Business Strategy. Information Technology for Competitive Advantage. Strategic Information Systems Planning Methodologies. Business Process Re-Engineering. Value Chain Analysis. Critical Success Factors. Business Systems Planning. Managing Investment, Information Management. Information Engineering. Knowledge Management. Technology Plan

LLC 3810 - NETWORKING CONCEPTS (3 CREDITS)

Operating Systems Basics. Intro to Networking. Physical Components of a network. Overview of Network Services. Network Protocols. Intranets, Extranets and the Internet. Intro to Network Operating Systems. Windows and Linux Operating Systems. Administration of Network Operating Systems.