


AMOU UNIVERSITY
“A Vehicle for Peace and Development”
AMOU UNIVERSITY



FACULTY OF COMPUTING AND ICT

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY PROGRAMME

ACADEMIC YEAR 2015/ 2016

COURSE DESCRIPTION

BIT 415	Web Programming (PHP & My SQL)
Contact Hours	52
Pre-requisite	BIT 213 Web Design and Publishing
Purpose/Aim	This course builds on the foundation courses in web technologies by introducing additional tools, techniques and technologies for the development of advanced web systems.
Course Objective (Indicative Learning Outcomes)	<p>By the End of this Course, The learner should be able to:</p> <ul style="list-style-type: none"> • Enumerate the range of technologies that have been used to build the World Wide Web. • Develop a website with transactional capacity. • Develop both front end and back end web based Systems
Course Content	<ul style="list-style-type: none"> • Cascading style sheets • Extensible mark-up language • Scripting and programming • HTTP servers • Web database processing • Web servers • Server-side scripting (<i>PHP, Java, ASP</i>), Client-side scripting (<i>JavaScript, Applet programming</i>). <p><u>Labs I:</u></p> <p>Fundamentals</p> <ol style="list-style-type: none"> a. Networking Fundamentals: sockets, IP, TCP, HTTP b. Client-side Components: HTML, XML, browsers, applets, HTML



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forms, JavaScript, VBScript.

c. Server-side Components: Web servers, Servlets, CGI, JSP, ASP, PHP, application servers.

d. Data-base Components: SQL, JDBC, database servers

Labs 2:

Architecture and Design

a. 1..N-tier designs

b. User interface versus business logic

c. Back end servers: database servers, directory servers, transaction servers, interfacing to legacy systems

d. Security issues

e. Object-oriented modeling for Web applications using UML & WAE

Labs 3:

Development of multi-tier applications

Java-related

a. Setting up the Java servlet engine

b. Fundamental Java servlets: servlet life cycle, Request and Response

c. Session Management and cookies

d. Dynamic HTML generation

e. Data Management using Java Database Connectivity (JDBC)

f. Java Server Pages

g. Integrating Java servlets and JSP

ASP-based

a. ASP Object Model

b. Fundamentals of ASP: getting started

c. Basic ASP: input, output, variables, arithmetic operations, strings, arrays

d. Control structures

e. Object-Orientation in ASP: objects, properties, methods and events



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	f. Session Management: Applications, Sessions, Cookies g. Database Access with ASP: ADO object model Labs 4: Special Topics a. Distributed component frameworks (COM/DCOM, CORBA, RMI, Jini) b. Secure directory access using LDAP c. Search engines		
Learning & Teaching Methodologies	Lectures, tutorials and computer laboratory exercises		
Instructional Materials/Equipment	Classroom with audio visual aids Computer laboratory Internet access		
Course Assessment	Type	Weighting (%)	
	Final Examination	60	
	Mid Term Examination	20	
	Assignment	10	
	Attendance	10	
	Total	100	
Recommended Reading	Title	Author	Publisher
	Wilde’s www: technical foundations of the world wide web	Wilde E	Springer; 1999
Additional Reading	Database-driven web sites	Morrison M., Morrison J.	Thomson Learning; 2000
Other Support Material	A variety of multimedia systems and electronic information resources as prescribed by the lecturer. Various application manuals and articles, URL search and journals.		