

1. ESSENTIAL QUALITIES AND ATTRIBUTES OF THE PROGRAMME'S GRADUATES

This programme aims to educate students in areas of computing technology that underpin the Internet and web-based technologies and develop skills that will enable them to design, develop and manage web-based resources.

2. RATIONALE OF THE PROGRAMME

In today's world of technology the use of the Internet has become an essential part of our lives. Internet technology, has affected nearly all types of activities, whether in education, business, industry, arts, medicine, or engineering. The success of the Internet has led to the development of new methods for communicating information and ideas, managing data and carrying out business operations that make use of web-based technologies and electronic media. Internet applications now underly many aspects of business and daily life, allowing users to perform activities that were traditionally paper-based or carried out face-to-face. Such activities are diverse in nature and may range from business transactions and exchange of ideas and data through shared work spaces, through to participation in educational programmes or entertainment. Whatever the application, the design and management of effective web-based systems requires both technical design and implementation skills alongside a good understanding of users and their expectations of the technology.

The Internet Technology programme aims to provide this perspective. Students will learn to use a range of computer languages, tools and techniques that will enable them to develop interactive web-based systems. They will also learn how to create and develop multimedia and to manage data using internet protocols. In the more advanced stages of the programme they will learn how e-commerce is changing the way in which we do business and develop advanced programming skills necessary for the development of web services and database systems. In this way, the programme aims to meet the technological need for web based skills in the community and the region in particular.

Theoretical and practical aspects of the field are considered in parallel and integrated wherever possible throughout the programme. This culminates in a substantial final year project which requires the student to research and analyze an internet technology related problem and to provide a practical solution based on the analysis. Global business and industry requirements set the framework this technology programme in which students not only acquire knowledge but also gain considerable practical abilities in the usage of the recent research and technology outcomes. The Internet Technology programme addresses these requirements. The expectation is that students graduating from this programme should be able to analyze problems, evaluate existing or potential systems, and work as a member of a team. They will be well equipped to find employment as web designers and developers, or to work in a range of IT related professions where these skills are considered of value.

BSc (Hons) - Internet Technology

	Year 1	CU Level	C.P	Year 2	CU Level	C.P	Year 3	CU Level	C.P	Summer	Year 4	CU Level	C.P	
Fall Semester	College Mathematics	0	10	Inferential Statistics	1	10	ELECTRONICS ENGINEERING	1	15	INTERNSHIP	Omani Studies	0	10	
	Computer Fundamentals	0	10	Business Communication	0	10	FUNDAMENTALS OF COMPUTER NETWORKS	1	15		SPECIAL TOPIC / SYSTEMS PROJECT MANAGEMENT	3	15	
	English for Special Purpose	0	10	FUNDAMENTALS OF RELATIONAL DATABASE MANAGEMENT SYSTEM	2	15	Web Administration and Security	2	10		DATABASE ADMINISTRATION	3	15	
	FUNDAMENTALS OF COMPUTER HARDWARE	0	15	Rapid Applications Development	1	10	Active Server Pages	2	10		Advanced Web Application Development	3	10	
	ELECTRICAL ENGINEERING	0	15	ELECTIVE - I	1	15	Internet Programming	2	10		Project Planning	3	10	
			60			60								60
Spring Semester	Calculus and Numerical Methods	1	10	Object Oriented Paradigm	1	10	Business Environment	0	10		Database Security	3	10	
	Descriptive Statistics	0	10	Object Oriented Programming	1	10	COMPUTER ARCHITECTURE	2	15		■ NET Programming	3	10	
	Introduction to Internet	0	10	Web Applications Development	1	10	Object Oriented Design using UML	2	10		ELECTIVE - III	3	10	
	SYSTEM ANALYSIS AND DESIGN	1	15	Multimedia	1	10	E-Commerce Technologies	3	10		Project Design and Implementation	3	30	
	INTRODUCTION TO PROGRAMMING	0	15	PROJECT - I	2	20	ELECTIVE - II	2	15					
			60			60							60	
	Certificate in Computing			Diploma in Internet Technology			Advanced Diploma in Internet Technology				BSc (Hons) in Internet Technology			

WHITE	10	COLLEGE REQUIREMENT
TURQUOISE	10	DEPARTMENTAL REQUIREMENT
YELLOW	13	MAJOR ELECTIVES
RED	2	PROJECT
LAVENDAR	4	ELECTIVES

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Level 0	125
Level 1	130
Level 2	105
Level 3	120
Level 2+Level 3	225

3. PROGRAMME LEARNING OUTCOMES

On successful completion of the programme, students should be able to:

1. demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to internet technology.
2. deploy appropriate theory, practices and tools for the specification, design, deployment and marketing of a internet-based application.
3. evaluate an internet-based application in terms of general quality attributes and assess the extent to which it meets the specification for its current use and future development.
4. present succinctly to a range of audiences (orally, electronically or in writing) rational and reasoned arguments that explain the construction, application and value of a internet-based applications.
5. recognise the professional, commercial and ethical issues involved in the exploitation of internet technology and be guided by the adoption of appropriate professional, ethical and legal practices.
6. work effectively as a member of a development team, recognising the different roles within a team and different ways of organising teams.

Transferable skills form an integral part of most modules. Self-directed learning and the necessity to work within tight deadlines are essential requirements in all parts of the curriculum. A variety of assessment techniques will ensure that students are given every opportunity to demonstrate skills in these areas.

4. PROGRAMME LEARNING OUTCOMES and CORE MODULES MAPPING

MODULE	1	2	3	4	5	6
Fundamentals of Computer Hardware	x					
Electrical Engineering	x					
Electronics Engineering	x					
Introduction to Programming	x					
Fundamentals of RDBMS	x					
Web Administration and Security		x		x	x	
Web Applications Development		x				
Active Server Pages		x				x
Rapid Applications Development		x	x			
Multimedia		x	x			x
Project 1				x	x	x
System Analysis and Design	x		x			x
Fundamentals of Computer Networks	x					
Object Oriented Paradigm		x	x			
Internet Programming		x				
E-Commerce Technologies		x	x	x		
Computer Architecture	x					
Object Oriented Design using UML	x		x			
Object Oriented Programming	x		x			
Systems Project Management				x	x	
Database Administration	x				x	
Database Security	x		x		x	
Advanced Web Application Development		x				
.NET Programming		x				
Project Planning	x	x	x	x	x	x
Project Design and Implementation	x	x	x	x	x	x