

Liverpool John Moores University

Title: INFORMATION AND COMMUNICATIONS TECHNOLOGY
Status: Definitive
Code: **4502CP** (103520)
Version Start Date: 01-08-2013

Owning School/Faculty: Arts, Professional and Social Studies
Teaching School/Faculty: Dublin Business School

Team	Leader
Alistair Beere	Y

Academic Level: FHEQ4 **Credit Value:** 20.00 **Total Delivered Hours:** 77.00
Total Learning Hours: 200 **Private Study:** 123

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	25.000
Practical	50.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	Theory: Short/answers/MCQ	10.0	
Practice	AS2	Practical assessment (spreadsheet, database, basic web)	40.0	
Exam	AS3	Examination	50.0	2.00

Aims

To support learners in gaining a knowledge of the characteristics, features and components of current computer technologies.

To build learners' practical computing skills in spread sheet and database software tools.

To enable learners to understand Internet and Web technologies.

To provide learners with the overview of the role of ICT technologies in business. To enable learners to appreciate current ICT-related issues in health and safety, security, legal and social areas.

Learning Outcomes

After completing the module the student should be able to:

- 1 Define the features, functions and components of computers and their related technologies
- 2 Demonstrate the use of practical spread sheet and database skills
- 3 Demonstrate knowledge and skills in Internet and Web technologies
- 4 Discuss the role of computer technologies in underpinning business systems
- 5 Demonstrate and understanding of current legal, social, ethical, privacy, health and safety issues that exist in computing.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

TEST	1		
ESSAY	2	3	
EXAM	1	4	5

Outline Syllabus

- 1. Computer Hardware components: Types of Computers; Bits and Bytes: Memory Motherboard, Processors, Ports, Expansion Cards and Switches. Input/output Devices, Storage devices Storage.*
- 2. How computers work: CPU, Fetch/Decode/Execute cycle/Store, Binary numbers and Digital signalling, ASCII, Unicode.*
- 3. Software: application software, types, features and application to providing solutions to business problems. Mobile Technology, Social Networking.*
- 4. Systems Software: operating systems: types, features and functions Desktop OS v Server OS, User Management. Mobile Technology, Social Networking.*
- 5. Database: Tables, data properties; entering/editing records; relationships, queries; reports; forms designing forms/interface for data entry; securing the database data, introduction to SQL.*
- 6. Spread sheets: designing and creating spread sheet models; using common functions and formulae; inputting/editing data; creating summary information charts ; linking,*

exporting to other applications, understanding the appropriate business uses of spread sheet software.

7. Networks: Network types and components; transmission media and equipment; Network functions, network, architecture/topologies; Network Operating Systems, LAN, WAN, Peer to Peer/Client Sever

8. Internet, web and cloud technologies: technological components of the Internet: architecture, communications, routers, switches, World Wide Web, Wireless Communication Systems; Protocols, IP addressing, Standards Browsers; cloud technologies, Web Introduction to current mark-up languages: basic page structure, formatting, inserting content, linking pages.

9. Evolution of IT in Business: from mainframe to distributed systems to cloud computing; Online Business: , B2B, B2C, Web Marketing; Transaction sites; optimizing web sites, Intranet, Extranet, ESales, Web Marketing, Social Networking, Mobile Commerce, Cloud Computing technologies, applications and opportunities for business, Green Computing.

10. Computer Security and Risks: Theft by computer: Property theft/Identity theft, Software Sabotage: Viruses/Malware, Hacking and Electronic Trespassing. Computer Security: Reducing Risks, Physical Access Restrictions, Passwords and Access Privileges, Firewalls, Encryption, Audits.

11. Health and Safety, Privacy Legal, Ethical Issues, Ergonomics, Legislation: data protection, responsibilities for organisations for safeguarding and using data, compliance with legislation.

Learning Activities

Lectures and tutorials.

References

Course Material	Book
Author	Evans, Martin & Poatsy
Publishing Year	2013
Title	Technology In Action
Subtitle	Introductory Edition
Edition	10th
Publisher	Prentice Hall
ISBN	

Course Material	Book
Author	Andrews

Publishing Year	2013
Title	Jump Right In
Subtitle	Essential Computer Skills Using Microsoft Office 2010
Edition	2nd
Publisher	Prentice Hall
ISBN	

Course Material	Book
Author	O'Leary Linda & O'Leary Timothy
Publishing Year	2013
Title	Computing Essentials 2013
Subtitle	Making It Work for You, Complete
Edition	23rd
Publisher	McGraw-Hill
ISBN	

Course Material	Book
Author	Beekman & Beekman
Publishing Year	2012
Title	Digital Planet
Subtitle	Tomorrow's Technology and You, Introductory
Edition	10th
Publisher	Prentice Hall
ISBN	

Notes

In this module learners will focus on the essential and current concepts of computing and related technologies. Learners are given a relevant approach to the fundamental issues surrounding the world of computing through a balance between theory and the applied learning of these topics. Learners will build practical skills in database, spread sheets and web technologies. They will also appreciate the role that computer technologies have played in facilitating the evolution and development of business systems and the legal and ethical issues that have emerged through this process.