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Course Outline 2014-2015

Proposed Date/Week	Unit/Section	Topic	Modules
Term 1			
Week 1	SBA	9. SBA Details	9.1 SBA components
(SBA assigned)			9.2 SBA mark scheme
(SDA assigned)			9.3 SBA Milestones/Deadlines
	SPREAD SHEET/	Review spread sheet	1 Spread sheet formatting
Week 2	SBA COMPONENT	topics	2 Cell Addressing
WEER Z			3 Formulae
			4 Search/Sort/Filter
		1.	1.1 Deleting and inserting characters,
		editing features	words, lines, sentences, paragraphs.
			1.2 Type-over mode.
			1.3 Selecting blocks of text
			1.4 Copying and moving sections of text
		2. commonly available features	2.1 Page numbers, page breaks
	WORD		2.2 Text alignment, word-wrap, margins, tabs,
Week 3 - 5			2.3 Page length, default settings,
		3. Formatting features for documents	3.1 Margins, tab stops, line spacing, page breaks, page numbers
		Joi documents	3.2 Left and right justification, centre line, underline
			3.3 highlight, uppercase, bold, and italic
		4. Document Navigation	4.1 Headers and Footers
		Navigation	4.2 – Footnotes and Endnotes
		5. Character formatting	5.1 Underline, bold, italics, font types and sizes, superscript and subscript.
		6. Advanced document techniques	6.1 Combine Documents
			6.2 – Block operations
			6.3 – Columns and Tables

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Proposed Date/Week Term 1	Unit/Section	Topic	Modules
Term 1		7. Edit and review	7.1 Search and replace
			7.2 Spell check
		8. Insert objects	8.1 Text Files
	WORD		8.2 Graphics
Week 3 - 5	PROCESSING/		8.3 Tables
	SBA Component	9. Documents integrity	9.1 Automatic save and backup copy, password protection, track changes.
		10. Mail merge theory	10.1 Creation of primary documents; Field names.
			10.2 Data files in mail merge application
			10.3 Field names
	DATABASE MANAGEMENT	1. concept of a database	1.1 Definition of database
Week 6-8		2. Database terminology	2.1 Table (relation), entity 2.2 Tuple, Attribute 2.3 Keys: primary key, secondary key, composite key, candidate key, alternate
		3. Common terminology between Files and Databases	key, foreign key. 3.1 Row (tuple, record), column (attribute, field), key. 3.2 Data types: alphanumeric; numeric; data; logical.
		4. Advantages and limitations of databases	4.1 Speed4.2 Ad hoc queries4.3 Standardization4.4 Present multiple views of the same data.
		5. Create a Database	5.1 Table structure5.2 Three data types5.3 Minimum 25 records
		6. Modify a table structure	6.1 Adding new fields6.2 Deleting fields6.3 Changing field definitions.

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		7. Sort a database	7.1 Arranging data in numeric, alphabetic; or alphanumeric format. 7.2 Generate a Report 7.3 Use Sorting, grouping statistical and summary features, for example, count, sum and average.
	DATABASE	8. Establish relationships;	8.1 Use of joins, merge tables. 8.2 Files (import)
Week 6 - 8	MANAGEMENT/ SBA Component	9. Query a database using multiple search conditions;	9.1 Using more than one criterion 9.2 Use of select 9.3 Calculated fields
		10. Search on a database given multiple conditions	10.1 Two or more fields involving the use of relational and logical operators.
		11. Generate reports	11.1 Softcopy (display) 11.2 Softcopy (file) 11.3 Hardcopy (print)
Week 9	Program Implementation	8. Manipulate data in a list	8.1 Declare 1-dimensional arrays8.2 Reading from and writing to arrays8.3 Traversing arrays8.4 Linear search
Week 10 - 11	Program Design and Implementation/ SBA Component	Review topics	1 Steps in problem solving2 Representing Algorithms3 Testing algorithms for correctness4 Implementing an algorithm in Pascal5 Documentation
		1. Data and Information	1.1 Define Data 1.2 Define Information
		2. Role of Information Processing systems	2.1 Types of Information Processing 2.2 Information retrieval and management
Week 12 - 13	INFORMATION PROCESSING	3. Sources of data	3.1 Source document.3.2 Turnaround document.3.3 Human-readable document.3.4 Machine-readable document.
		4. Validation and verification of data	 4.1 Difference between validation and verification. 4.2 Range check 4.3 Reasonableness checks 4.4 Data type checks 4.5 Inconsistency checks

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Proposed Date/Week	Unit/Section	Topic	Modules
Term 1			
Week 12 - 13		5. Examples of verification/validation	5.1 Double entry
		6. File organization and	Organization
	INFORMATION	access;	6.1 Sequential, 6.2 Random, 6.3 Index-sequential
	PROCESSING		Access
			6.4 Direct- access
			6.5 Sequential-access
		7. Examples of file	7.1 Associate an appropriate file structure and
		organization and access	access method to a specific use case
Week 13	REVIEW		

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Proposed	Unit/Section	Topic	Modules
Date/Week Term 2			
Week 1	SBA Review/ Print tutorial		Final SBA submission begins
APPLI AND IMPLI OF INFOR AND COMI		1. Data communications and networks 2. Internet, intranet and extranet; 3.	1.1 Types of networks 1.2 Types of transmission media 1.2.1 cable/wired media 1.2.2 wireless media 1.3 Wireless network technology 1.4 Communication modes 2.1 Definition of each 3.1 e-mail 3.2 newsgroups 3.3 Internet Relay Chat (IRC), 3.4 Telnet 3.5 File Transfer Protocol (FTP), 3.6 upload, download 3.7 World Wide Web (WWW), web browser
	INFORMATION	Internet concepts (examples)	World Wide Web (WWW), web browser, HTTP, Hypertext Markup Language (HTML/XHTML), web page, website, blogging, webserver, URL 3.8 e-commerce, e- learning, 3.9 pod-casting, bulletin board 3.10 VoIP.
		4. Data security and integrity;	4.1 Software Restrictions: passwords, encryption, virus protection, firewall; 4.2 Physical access restrictions: biometric systems, guards, locks; fire/water proof cabinets; 4.3 archiving; backup and recovery procedures; 4.4 Propriety data and software.

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Course Outline 2014-2015 SUBJECT- Information Technology

Proposed	Unit/Section	Topic	Modules
Date/Week			
Term 2			
			5.1 Violation of privacy
			5.2 Propaganda
			5.3 Software piracy
		5. Information	5.4 Computer fraud
		Misuse	5.5 Electronic eavesdropping
		IVIISUSE	5.6 Industrial espionage
			5.7 Surveillance
			5.8 Storage of inaccurate information
			5.9 Identity theft
			5.10 Credit card fraud.
APPLICATIONS AND IMPLICATIONS OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	6. Hardware and software to meet the particular needs of a given application;	3 Uses cases from: Business, industry, science and technology, education, law enforcement, recreation, music, gaming. (open source vs proprietary)	
	OF INFORMATION	7. Current and emerging technological trends	7.1 Expert systems 7.2 Robots 7.3 CADD, CAE, CAM, 7.4 Telemarketing
			7.5 Teleconferencing
		8. The impact of Information Technology on job skills and careers	8.1 Computer skills required for particular jobs (non-IT field). 8.2 Loss of jobs 8.3 Retraining 8.4 Telecommuting
		9.The functions of	9.1 Job summaries for:
		individuals in computer-	programmers, systems analysts and
		related fields	designers, IT managers, systems
			programmers, database administrators,
			network administrators, IT managers,
			file librarians, computer technicians,
			computer engineers, software engineers,
			software testers, webmaster, web-
			developer, software trainer, multi-media
			artists.

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Proposed	Unit/Section	Topic	Modules
Date/Week			
Term 2			
Week 3	SBA		Final SBA Hard Copy Submission January 22 nd , 2015
Week 4 - 5	WEB PAGE DESIGN	1. Plan the website	1.1 Reasons for the website 1.2 The intended audience 1.3 Number of web pages desired; 1.4 Content of each page 1.5 Layout of the web pages.
		2. Create a simple web page	2.1 Choosing an appropriate design for a page;2.2 Inserting and deleting text and graphics;2.3 Wrap text with image;2.4 Create thumbnail image, index page, home page, hyperlink.
		3. Create hyperlinks	3.1 Linking to another web page;3.2 Link to a location within the web page;3.3 Link to an email address;3.4 Link to user-created files.
		4. Test the website	4.1 Use of a web browser;4.2 Verify that all the hyperlinks work correctly;4.3 Use a test audience
		5. Publish and maintain a website.	5.1 Registering domain names5.2 Locate hosting company5.3 The use of the file transfer protocol (FTP) for uploading files.
Week 6	Presentation Software	1. The uses of presentation software	1.1 Public speaking /lectures; 1.2 Project reports; 1.3 Sales or marketing ideas.
		2. Wizards, templates and slides	2.1 Use cases based on presentation purpose
		3. Slide layout	3.1 Slide layout related to the type of information being presented
		4. Design templates	4.1 Choosing from a list of presentation designs
		5. Formatting features	5.1 Changing background colour 5.2 Font size and other attributes
		6. Slide master to personalize the slides.	6.1 Create slide headers and footers 6.2 Create and use speaker notes
		7. Use animation effects	7.1 Select appropriate animation 7.2 Apply customizations to animation

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Proposed Date/Week Term 2	Unit/Section	Topic	Modules
		8. Insert images/multimedia	8.1 Distinguish between linking to objects and embedding objects
Week 6	Presentation Software	9. Manipulate multiple slides	9.1 Insertion and deletion of slides9.2 Use of the slide sorter
		10. Present a slide show.	10.1 Use of slide show tools such as slide navigator, pointer options, screen attributes.

Proposed Date/Week	Unit/Section	Topic	Modules
Term 2 - 3			
Continuous	Entire Course	Past Papers	
	Review		
	Entire Course	Past Papers	
	Review		
	Entire Course	Past Papers	
	Review		