INFORMATION TECHNOLOGY
CAPE UNIT 1 OUTLINE
CHRISTMAS TERM PLAN 2023

Dates	Topics	Content	Suggested Assessment
Week 0 Sept. 05 - 09	*Course Overview*	Syllabus Requirements of IA	
Week 1 Sept. 11 -15	*The Field & History of Information Technology*	Definition and Scope of Information Technology (usage, limitations, related fields) Professional Organisations Brief history of ● computer hardware (categorised by size and processing ability) ● Software ● Internet ● Telecommunications.	Reading Assignments, Quizzes, Classwork assignments.
Week 2 Sept. 18 - 22	*Distinguishing Data, Information & Knowledge*	Definition of terms and examples **Data**: include unprocessed, unorganised and discrete (in separate, unrelated chunks), qualitative (opinion-based, subjective) or quantitative (measurement-based, objective), detailed or sampled. **Information**: including distortion, disguise, reliable, inconsistency, Incomprehensible, subject to interpretation, value, relevance, confidentiality,	Classwork, group discussion, presentations

		timeliness, completeness, security, shareability, availability, lifespan, information as a commodity, format and medium **Knowledge**: Use of information for decision making: data quality; appropriateness of data.	
	Internal Assessment	Problem Definition of IA	
Week 3 Sept. 25 - 29	*Types of Information Sources*	Traditional and electronic information sources: including people, books, journals, catalogues, magazines, newspapers, libraries, CD-ROMs, DVDs, electronic databases, web sites, blogs, wikis, social media. Primary and secondary information sources. Advantages, disadvantages of information sources.	Research and graded presentation on the content. Classwork, group discussion, presentations.
	Internal Assessment	Finalise problem definition	Submission of Problem Definition
Week 4 Oct. 02 - 06	*Characteristics of Information Sources*	Include availability, cost, and currency of information, amount of detail (depth), breadth of coverage, reliability, format and medium.	Classwork, group discussion, presentations
	Internal Assessment	Meet in groups to discuss and create Gantt Charts	
Week 5	*Criteria for Selecting*	Including: bias, accuracy, cultural context,	Reading Assignments,

Oct. 9 - 11	*Information Sources*	completeness, currency of information, refereed and un-refereed sources, characteristics of information on the Internet.	Quizzes, Classwork assignments.
	Internal Assessment	Discuss Analysis of Problem	Submission of Gantt Chart
Midterm - October 12- 16			
Week 6 Oct. 17 - 20	*Information Processing*	Definition of information processing (input process, output process); manual versus automated information processing; components of manual information processing: collect, collate, analyse, present and disseminate; components of automated information processing: input (data capture or entry), process (for example, analyse, sort, calculate), store, retrieve, output (present and disseminate); transmit data and information. Interrelationship between data and information through information processing. Types of manual and automated information systems.	Classwork, group discussion, presentations
	Internal Assessment	Work on Analysis of Problem	
Week 7 Oct. 22 - 27 **Six Week Test**			
Week 8	*Representing Data and Information*	**Data:** including character, string, numeric, aural and	Classwork, group discussion, presentations

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Oct. 23 – 27		visual. **Information**: including text, graphics, signals (analogue, digital); sound, video, special purpose notations (mathematical, scientific and musical notations); graphical representations (graphs and charts); tables. Morse Code, musical symbols, ASCII, (American Standard Code for Information Interchange); binary.	
	Internal Assessment	Analysis of Problem	
Week 9 Oct 30 – Nov 3	*Tools in Information Technology*	Hardware, (for example modem) software and communication tools; advantages and disadvantages; tools associated with the Internet including on- line services; search engines; VoIP, SMS Discussion Forum/Board telnet, ftp (upload/download), message board, mailing list, social media tools, web-conferencing tools, cross-platform messaging tools.	Reading Assignments, Quizzes, Classwork assignments.
	Internal Assessment	Analysis of Problem	Submit Analysis of Problem
Week 10 Nov. 6 - 10	*Information Systems*	Definition; types of Information Systems. Transaction Processing Systems, Management Information Systems, Office Automation Systems/ Knowledge Work Systems, Decision Support Systems, Executive Information	Classwork, group discussion, presentations

		Systems). Expert systems definitions and examples; personnel; major input and output from each type of information system, such as data, information, processed transactions. Reports including detailed, summarised, exception, ad hoc.	
	Internal Assessment	Identifying Tools for Solution	
Week 11 Nov. 13 - 17	*The relationship among the components in an Information System*	Relationship among the components: hardware, software, data, procedures, users, network.	Classwork, group discussion, presentations
	Internal Assessment		
Week 12 Nov. 20 - 24	*Hardware: Purpose & Functions*	Hardware (input, output, storage, processor and peripheral devices)	Classwork, group discussion, presentations
	Internal Assessment		
Week 13 Nov 27 – Dec 1	*Software: Purpose & Functions*	Purpose, functions and types of software including application, system (operating systems, language translators, and utilities); software; embedded systems (monitoring and control systems)	Reading Assignments, Quizzes, Classwork assignments.
Second Six Week Test			

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December 4 to 8			
Dec 11-14 **Dec 15-** **Lapathon**	*Distinguish among different types of HCI;*	*Differences among the types of HCI including forms, menu, command line, natural language, graphical user interface (GUI), speech and direct manipulation.* Internal Assessment -Justification of solutions	*Class activity, Presentations, group work.*
END OF CHRISTMAS TERM – Dec 19			