NQF6

Prescribed textbook: H. Bidogli, Management Information Systems (10th edition)

Available from: https://www.vitalsource.com/za/products/mis-hossein-bidgoli-v9780357419304

The overall aim of the module is to understand basics of information systems, the role of hardware and software, modern communications and networks, managing of information systems and some commonly used information systems.

Syllabus topics	Syllabus detailed content	Textbook		
Learning Outcome 1: Understand the role of Information and technology in a business environment.				
Introduction.	1-1 Computers and Information Systems in Daily Life	Chapter 1: Information		
Need for Information. Processing	1-2 Computer Literacy and Information Literacy	Systems in Business		
of information.	1-3 The Beginning: Transaction-Processing Systems			
	1-4 Management Information Systems			
	1-5 Major Components of an Information System			
	1-6 Using Information Systems and Information Technologies			
Learning Outcome 2: Understand the role of hardware and software.				
Hardware supporting processing of data. Software	2-1 Defining a Computer	Chapter 2: Computers and		
	2-2 The History of Computer Hardware and Software	Their Business Applications		
	2-3 The Power of Computers			
	2-4 Computer Operations			
	2-5 Input, Output, and Memory Devices			
	2-6 Classes of Computers			
	2-7 What Is Software?			
	2-8 Computer Languages			
	2-9 Object-Oriented Programming: A Quick Overview			
	3-2 Logical Database Design	Chapter 3: Data and		
	3-3 Components of a DBMS	Business Intelligence		
	3-4 Recent Trends in Database Design and Use			
	3-5 Data Warehouses			
	3-6 Data Marts			
	3-7 Business Analytics			
	3-8 The Big Data Era			
	3-9 Database Marketing			
	3-10 Tableau and Power BI: Two Popular BI and Visualization Platforms			
Learning Outcome 3: Understand modern commun				
Communications and Networks	6-1 Defining Data Communication	Chapter 6: Data		
	6-2 Basic Components of a Data Communication System	Communication: Delivering		
	6-3 Processing Configurations	Information Anywhere and		
	6-4 Types of Networks	Anytime		
	6-5 Network Topologies			
	6-6 Major Networking Concepts			

Syllabus outline: Managing Information Systems

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	6-7 Wireless and Mobile Networks	
	6-8 Wireless Security	
	6-9 Convergence of Voice, Video, and Data	
	7-1 The Internet	Chapter 7: A Connected
	7-2 Navigational Tools, Search Engines, and Directories	World
	7-3 Internet Services	
	7-4 Web Applications	
	7-5 Intranets	
	7-6 Extranets	
	7-7 The Web Trends	
	7-8 The Internet of Everything and Beyond	
	13-1 What Is Artificial Intelligence?	Chapter 13: Artificial
	13-2 Expert Systems	Intelligence and Automation
	13-3 Case-Based Reasoning	
	13-4 Intelligent Agents	
	13-5 Fuzzy Logic	
	13-6 Machine Learning	
	13-7 Genetic Algorithms	
	13-8 Natural-Language Processing	
	13-9 Integrating Al Technologies into Decision Support Systems	
	13-10 Contextual Computing: Making Mobile Devices Smarter	
	13-11 Al and Automation	
	13-12 Ethical issues of Al	
Learning Outcome 4: Understand managing and con	trolling information systems and security of information systems.	
Management, Monitoring and control of information	4-1 Privacy Issues	Chapter 4: Personal,
systems	4-2 Ethical Issues of Information Technologies	Legal, Ethical, and
	4-3 The Impact of Information Technology in the Workplace	Organizational Issues
	4-4 Green computing	, in the second
	5-1 Risks Associated with Information Technologies	Chapter 5: Protecting
	5-2 Computer and Network Security: Basic Safeguards	Information
	5-3 Security Threats: An Overview	Resources
	5-4 Security Measures and Enforcement: An Overview	
	5-5 Guidelines for a Comprehensive Security System	
Learning Outcome 5: Understand the workings and		
Using Information technology, accounting and other	8-1 Defining E-Commerce	Chapter 8: E-Commerce
information systems	8-2 Major Categories of E-Commerce	
-	8-3 B2C E-Commerce Cycle	
	8-4 B2B E-Commerce: A Second Look	
	8-5 Mobile and Voice-Based E-Commerce	
	8-6 E-Commerce Supporting Technologies	
	8-7 E-Commerce and Beyond: Social Commerce	
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8-8 Hypersocial Organizations	
8-9 Social Media Information Systems	
12-1 Types of Decisions in an Organization	Chapter 12: Supporting
12-2 Decision Support Systems	Decisions and Processes
12-3 Executive Information Systems	
12-4 Geographic Information Systems	
12-5 Collaboration Systems	
12-6 Guidelines for Designing a Management Support System	
14-1 Trends in Software and Service Distribution	Chapter 14: Emerging
14-2 Virtual Reality	Trends, Technologies, and
14-3 Cloud Computing: Foundation, Applications, and Models	Applications
14-4 Nanotechnology	
14-5 Blockchain Technology and Cryptocurrency 14-6 Quantum	n Computing

Practical and work competencies

- Install a software program
- Access information from the Internet and the World Wide Web
- Use e-mail software
- Access the CIPC website and other online services
- Given a short case study, evaluate information processing and usage of IT in a business to determine risks and compliance with IT governance requirements
- All case studies in the prescribed text

Not for examination: Chapters 9 and 11