2023/24 ANNUAL TEACHING PLANS: INFORMATION TECHNOLOGY: GRADE 12 (TERM 1)

TERM 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11
CAPS TOPIC	Database: design and concept	OOP	OOP	Hardware PAT	Database management	Database design concepts	Database design concepts PAT	SQL	Social implications PAT	PAT	PAT
CONCEPTS, SKILLS AND VALUES	- Logging in / passwords - Explain and motivate relational database design - Normalisation - Transaction processing - Characteristics of a good database design - Caring for and managing data - Hacking through data	Reinforce past programming skills (methods) - OOP - Parameterised and non-parameterised constructors - Correct use of private and public attributes, accessor, mutator and auxiliary methods	- The use of the ToString method and accessor methods to provide output - Correct instantiation of objects - Correct use of methods of various objects as part of problem solving	- Mobile technologies - Overview of factors influencing performance of a computer - Motivate a typical computer system in respect of user requirements PAT	- Data collection – overview and examples - Location-based data - Data warehousing + mining - Caring for and managing data	- Characteristics of a good database - Problems with databases - Split tables and create relations	Example of basic relationship enabled by the utilisation of key fields PAT	Design and develop a solution incorporating SQL SELECT all or some fields (FROM)	- Discuss the advantages and disadvantages how mobile technology impacts on privacy – personal and business - IoT – technologies enabling the IoT and their impact on society PAT	PAT: Analysis of requirements using an appropriate methodology	PAT: Analysis of requirements using an appropriate methodology
DATE COMPLETED (TEACHER FILE)											
TERM COVERAGE	7.8%	18.4%	28.9%	39.4%	50%	60.5%	71%	81.6%	92%	100%	100%
YEAR COVERAGE	3.2%	7.4%	11.6%	15.8%	20%	24.2%	28.4%	32.6%	36.8%	40%	40%
REQUISITE PRE-KNOWLEDGE	Gr 11: Database design	Previous programming skills and knowledge	Previous programming skills and knowledge	Gr 11: Database design	Gr 11 PAT development skills	Gr 11: Database design and networking knowledge	Gr 11: Knowledge database design and e-communication	Gr 11: Database design and knowledge	Gr 11 PAT development skills	Gr 11 PAT development skills	Gr 11 PAT development skills
INFORMAL ASSESS, REMEDIATION	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks		
SBA (FORMAL ASSESSMENT)				PAT	ALTERNATIVE TEST		PAT	THEORY TEST	PAT	PAT	PAT

2023/24 ANNUAL TEACHING PLANS: INFORMATION TECHNOLOGY: GRADE 12: TERM 2

TERM 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8		WEEK 9	WEEK 10-11
CAPS TOPIC	**Systems technologies SQL**	**SQL PAT**	**Systems technology SQL**	**SQL PAT**	**Systems technology SQL**	**Solution development PAT**	**Solution development Social implications**	**TASK: MID-YEAR EXAMINATION**			
								PAPER 1		**PAPER 2**	
CONCEPTS, SKILLS AND VALUES	Factors influencing computer management DISTINCT and ORDER BY SELECT with calculated fields (AS) ROUND, INT, LENGTH	LEFT, RIGHT, MID Concatenating fields WHERE >, >=, <, <=, =, LIKE, BETWEEN AND, OR, NOT, IS NULL, NULL, IN PAT	Overview of cloud computing Overview of virtual reality, Wild cards #date# Insert, delete, update – ONE and then multiple records	Functions and aggregate functions Create a join query (single joins) using 'Where' PAT	Overview of augmented reality Overview of virtualisation Date functions (day, month, year, date) Queries with parameters where the user input is given: to modify data in a table "	Arrays as a data structure (2-dimensional) PAT	Consolidate and reinforce content, concepts and skills Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles Computer criminals & computer crime	**Marks: 150 – Time: 3 hours** **Question 1** Basic, general programming skills **Question 2** Database **Question 3** Object-oriented programming (OOP) **Question 4** General problem-solving		**Marks: 150 – Time: 3 hours** **Section A: Question 1** *Short questions (± 20 marks)* **Section B: Question 2** *Systems technologies (± 25 marks)* **Section C: Question 3** *Communications and network technologies (± 25 marks)* **Section D: Question 4** *Data and information management (± 25 marks)* **Section E: Question 5** *Solution development (± 25 marks)* **Section F: Question 6** *Integrated scenario (± 30 marks)*	
DATE COMPLETED (TEACHER FILE)											
TERM COVERAGE	12%	28%	40%	52%	68%	84%	100%	**Cognitive levels: Lower order – 30%, Middle order – 40%, Higher order – 30%**			
YEAR COVERAGE	43%	47 %	51 %	55%	59%	63%	70%				
REQUISITE PRE-KNOWLEDGE	Previous programming skills	Previous programming skills and knowledge	Previous programming skills and knowledge	Previous programming skills and knowledge	Previous theory and programming knowledge and skills	Application of all knowledge	Application of all knowledge				
INFORMAL ASSESS, REMEDIATION	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks				
SBA (FORMAL ASSESSMENT		**PAT**		**PAT**	**PRACTICAL TEST**	**PAT**	**PAT**				

NATIONAL ANNUAL TEACHING PLANS: INFORMATION TECHNOLOGY: GRADE 12: TERM 3

TERM 3	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9-11	
CAPS TOPIC	Software engineering PAT	Software engineering PAT	Internet services technologies PAT	Communication technologies PAT	Social implications Solution development	Solution development PAT	Solution development PAT	Solution development	**TASK: TRIAL EXAMINATION**	
									PAPER 1	**PAPER 2**
CONCEPTS, SKILLS AND VALUES	Reinforce software engineering principles PAT	Reinforce software engineering principles PAT	- Improve searching - Online applications - Role of SQL, scripting languages - Formatting output PAT	- Essential parts to link nodes - Connecting to the Internet - Sharing concepts - Online services - Remote access - Overview of security concepts PAT	Explain how computers provide solutions to issues - Consolidate and reinforce content, concepts, and skills - Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles	- Consolidate and reinforce content, concepts, and skills - Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles PAT	- Consolidate and reinforce content, concepts, and skills - Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles PAT	- Consolidate and reinforce content, concepts, and skills - Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles	**Marks: 150 – Time: 3 hours** **Question 1** Basic, general programming skills **Question 2** Database **Question 3** Object-oriented programming (OOP) **Question 4** General problem-solving	**Marks: 150 – Time: 3 hours** **Section A: Question 1** *Short questions (± 20 marks)* **Section B: QUESTION 2** *Systems technologies (± 25 marks)* **Section C: Question 3** *Communications and network technologies (± 25 marks)* **Section D: Question 4** *Data and information management (± 25 marks)* **Section E: Question 5** *Solution development (± 25 marks)* **Section F: Question 6** *Integrated scenario (± 30 marks)*
DATE COMPLETED (TEACHER FILE)										
TERM COVERAGE	12.9%	25.8%	38.7%	48.3%	61.2%%	74.1%	87.1%	100%		
YEAR COVERAGE	74%	78%	81 %	84%	88%	92%	96%	100%		
REQUISITE PRE-KNOWLEDGE	Previous programming skills and knowledge	Previous programming skills and knowledge	Previous theory knowledge	Previous theory knowledge	Previous theory knowledge	Previous programming skills	Previous programming skills and knowledge	Previous programming skills and knowledge	**Cognitive levels:** **Lower order – 30%, Middle order – 40%, Higher order – 30%**	
INFORMAL ASSESS, REMEDIATION	1 informal assessment tasks	1 informal assessment tasks	1 informal assessment tasks	1 informal assessment tasks	1 informal assessment tasks		2 informal assessment tasks	2 informal assessment tasks		
SBA (FORMAL ASSESSMENT	**PAT**	**PAT**	**PAT**	**PAT**	**THEORY/PRACTICAL TEST**	**PAT**	**PAT**	**PRACTICAL EXAM**		

2023/24 ANNUAL TEACHING PLANS: INFORMATION TECHNOLOGY: GRADE 12: TERM 4

TERM 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 7-10
CAPS TOPIC	Content using case studies - all topics (3 hours)	Content using case studies - all topics (4 hours)	**FINAL NSC EXAMINATION**			
TEACHING TIME PER WEEK	4 hours per week required • If contact time is lost a **recovery plan must be in place** • Your recovery plan and remediation plan must be reflected in your Subject Improvement Plan – update it throughout the year • Indicate on the teaching plan (ATP) what has been competed to track your progress • Application packages share common features (formatting, editing, page layout, illustrations, etc.) reinforced these when teaching different packages • Use the guideline documents to complete PAT					
RESOURCES (OTHER THAN TEXTBOOK) **TO ENHANCE LEARNING**	**Hardware** • Data projector • 1 learner per computer • Entry-level computers networked • Multifunction printer • Internet connectivity	**Software** • Windows 10 or later version • Delphi programming software (Version 10, 10.3, 10.4) • Office 2016 or later version (Word, Excel, Access, PowerPoint	**Maintenance plan**	**General** • Slide presentations - summarised content • Notebook for summaries and activities • Online content, resources • Video clips • Posters with new concepts, formulas, functions • Previous question papers
EXAMPLES OF FORMATIVE ASSESSMENTS/ RETRIEVAL PRACTICE	• Concept maps for summaries • Brainstorm sessions • Quizzes (Google Forms, MS Forms, Kahoots!, etc.) for retrieval practice	• Competitions, gaming (fun activities) • Peer assessment • Extended opportunities, activities, etc.	
IMPORTANT DOCUMENTS TO USE WITH THE ATP	• Updated CAPS for IT • Chapter 4 – latest assessment instructions • Gr 12 exam guidelines with new concepts (new technologies where applicable)					