

**SUMMARY OF INFORMATION ON EACH COURSE**

1.	Name of Course	Information Systems Audit	
2.	Course Code	TIA3121	
3.	Status of Course [Applies to (cohort) ]	Specialisation Core for B.IT (Hons) Information Technology Management	
4.	MQF Level/Stage Note : <i>Certificate – MQF Level 3</i> <i>Diploma – MQF Level 4</i> <i>Bachelor – MQF Level 6</i> <i>Masters – MQF Level 7</i> <i>Doctoral – MQF Level 8</i>	Bachelor – MQF Level 6	
5.	Version (State the date of the Senate approval – history of previous and current approval date)	Date of previous version :	April 2015
		Date of current version :	April 2016
6.	Pre-Requisite	TSA2131 Systems Analysis and Design	
7.	Name(s) of academic/teaching staff	Neo Han Foon Siti Fatimah Razak	
8.	Semester and Year offered	Trimester 1, Year 3	
9.	Objective of the course in the programme : Students will understand various information systems controls and auditing techniques. It covers the management control framework and application control framework.		
10.	Justification for including the course in the programme : IT students need to have the knowledge to audit systems in terms of managing data resources, security and operations as well as quality assurance management. Student will be able to conduct different types of auditing including boundary auditing, input auditing, communications auditing, processing auditing, database auditing, output controls and audit software which are required by organisations nowadays.		
11.	Course Learning Outcomes :	Domain	Level
	LO1 Identify and appraise the need for control and audit of computer based information systems.	Cognitive	Level 1
	LO2 Describe and plan the basic steps to be undertaken in the conduct of information systems audit.	Cognitive	Level 5
	LO3 Identify and analyse major threats to information function.	Cognitive	Level 4
	LO4 Design, implement, operate and maintain audits and controls that reduce losses from these threats to an acceptable level.	Cognitive	Level 6

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12.	Mapping of Learning Outcomes to Programme Outcomes :									
	Learning Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	LO1	X						X	X	
	LO2							X	X	
	LO3							X	X	
	LO4	X						X	X	
13.	Assessment Methods and Types :									
	Method and Type	Description/Details						Percentage		
	1 Final Exam	Written exam						50%		
	2 Midterm Test	Written exam						20%		
	3 Assignment	Report & Presentation						20%		
	4 Case Study	Written						10%		
14.	Mapping of assessment components to learning outcomes (LOs)									
	Assessment Components	LO1	LO2	LO3	LO4					
	Assessment 1: Final Exam	60	60	60	60					
	Assessment 2: Midterm Test	15	15	15						
	Assessment 3: Assignment	15	15	15		25				
	Assessment 4: Case Study	10	10	10		15				
15.	Details of Course									
	Topics						Mode of Delivery (eg : Lecture, Tutorial, Workshop, Seminar, etc.) Indicate allocation of SLT (lecture, tutorial, lab) for each subtopic			
							Lecture		Tutorial	
	<b>Overview of Information Systems Auditing;</b> Need for control and audit of computers, Effects of computers on internal controls, Effects of computer on auditing, foundations of information systems auditing.						2		1	
	<b>Conducting an Information Systems Audit;</b> Nature of controls, Dealing with complexity, Audit Risks, Types of Audit Procedures, Overview of Steps in Audit, Audit Around or through the computer						3		2	
<b>Data Resource Management Controls and Audit;</b> Functions of DA and DBA, Data Repository Systems, Control over the DA and DBA						2		1		

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<b>Security Management Controls and Audit;</b> Conducting a Security Program, Major security Threats and remedial measures, Controls of last resort.	2	1
<b>Operations Management Controls and Audit;</b> Computer Operations, Network operations, data preparation and entry, Production control, File library, Management of outsourced operations.	2	1
<b>Quality Assurance Management Controls and Audit;</b> QA functions, organizations considerations	2	1
<b>Boundary Controls and Audit;</b> Cryptographic controls and audit, access controls and audit, Personal identification numbers, digital signatures, plastic cards, audit trail controls.	2	1
<b>Input and Output Controls and Audit;</b> Data input methods, Source document design, data-entry screen design, data code controls, check digits, batch controls, validation of input data, instruction input, validation of instruction input, audit trail controls and existence controls, Inference controls, batch output production and distribution controls, batch report design controls, online output production and distribution controls, audit trail controls and existence controls.	2	1
<b>Communication Controls and Audit;</b> Communication subsystem exposures, physical component controls, line error controls, flow controls, link controls, topological controls, channel access controls, controls over subversive controls, Internetworking controls, audit trail controls and exit controls	2	1
<b>Processing Controls and Audit;</b> Processor controls, real memory controls, virtual memory controls, operating system integrity, application software controls, audit trail controls and exit controls	2	1
<b>Database Controls and Audit;</b> Access controls, integrity controls, application software controls, concurrency controls, file handling controls, audit trail controls and exit controls.	2	1
<b>Risk management;</b> Risk Strategies, Risk Identification, Risk Projection, Risk Monitoring and Management Verification and validation Measurement tracking and feedback mechanism Total quality management Risk management	2	1
<b>Audit Software and Audit;</b> Generalized audit software, industry specific audit software, high level languages, utility software, expert systems, neural network software, specialized audit software, control of audit software	3	1
<b>TOTAL</b>	28	14

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	Total Student Learning Time (SLT)	Face to Face / Guided Learning	Independent Learning
	Lecture	28	28
	Tutorials	14	14
	Laboratory/Practical	0	0
	Presentation	0	0
	Assignment	0	10
	Mid Term Test	1	5
	Final Exam	2	18
	Sub Total	45	75
	Total SLT	120	
16.	Credit Value	3	
17.	Reading Materials :		
	Textbooks		
	James A. Hall, "Information Technology Auditing", 4th Ed., Cengage Learning, 2016.		
	Veena Hingarh, Arif Ahmed, "Understanding and Conducting Information Systems Auditing + Website", John Wiley & Sons Singapore Pte. Ltd., 2013.		
	Reference Material (including 'Statutes' for Law)		
	Sandra Senft, Frederick Gallegos, "Information Technology Control and Audit", 4th Ed., CRC Press, 2013		
	Richard E. Cascarino, " Auditor's Guide to IT Auditing", John Wiley & Sons, 2012.		

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Appendix (to be compiled when submitting the complete syllabus for the programme) :

1. Mission and Vision of the University and Faculty
2. Programme Objectives or Programme Educational Objectives
3. Programme Outcomes (POs)
4. Mapping of POs to the 8 MQF domain
5. Summary of the Bloom's Taxonomy's Domain Coverage in all the Los in the format below :

Subject	Learning Outcomes (please state the learning Outcomes)	Bloom's Taxonomy Domain		
		Affective	Cognitive	Psychomotor
ABC1234	Learning Outcome 1			
	Learning Outcome 2			
	Learning Outcome 3			
	Learning Outcome 4			
DEF5678	Learning Outcome 1			
	Learning Outcome 2			
	Learning Outcome 3			
	Learning Outcome 4			

6. Summary of LO to PO measurement
7. Measurement and Tabulation of result for LO achievement
8. Measurement Tabulation of result for PO achievement