Subject Description Form

Subject Code	COMP4127
Subject Title	Information Systems Audit and Control
Credit Value	3
Level	4
Pre-requisite / Co-requisite / Exclusion	
Objectives	The objectives of this subject are to: 1. recap of different information systems in operation and their management; 2. extend the potential graduates' horizon into the realm of audit and control aspects of information management; 3. evaluate the effectiveness of information systems; and 4. integrate the elements of risk assessment and cybersecurity in project management.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: *Professional/academic knowledge and skills* (a) apply the concept of audit in managing information systems and project management; (b) identify various types of controls and develop new control measures; (c) conduct audit exercises, collect and evaluate audit evidence. *Attributes for all-roundedness* (d) improve presentation and communication skills through various exercises; (e) develop the ability to conduct group works and solve related problems; and (f) think and reason in a critical manner, especially on different issues related to audit and control.

Subject Synopsis/ Indicative Syllabus	**Topic** **1. Information Systems Audit and Control** Nature of IS audit; concepts of auditing; types of audit; concepts of internal controls. **2. Management Controls** Top management control frameworks: CobiT, COSO; ISO27001; systems development management controls; programming management controls. **3. Applications Controls** Boundary controls; input/output controls; data validation edit and controls, processing controls; business process controls; testing application systems. **4. Evidence Collection and Evaluation** Nature of evidence; evidence collection; computer-assisted audit techniques; analysis and review. **5. Protection of Information Assets** Information security management; risk management concepts and methodologies; the process and components of information assets and risk management. **6. The Application of IS Audit and Control** The application of IS audit and control in financial systems and industry; Basel; case studies. **7. Business Continuity and Disaster Recovery** Concepts; the planning process and components; case studies.
Teaching/ Learning Methodology	This subject emphasises both theoretical and practical aspects of information systems audit and control. It is intended to provide students with knowledge and practical experience on conducting information systems audit projects. Guest seminars from the audit industry will be included. Various auditing tools, data analytics, simulations and exercises on information system audit will be provided in laboratory and tutorial sessions.

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<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td>f</td></tr>
<tr><td>Continuous Assessment</td><td rowspan="2">55%</td><td colspan="6"></td></tr>
<tr><td>1. Assignments, Tests & Projects</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Examination</td><td>45%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Total</td><td>100%</td><td colspan="6"></td></tr>
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<tr><td>Student Study Effort Expected</td><td>
<table>
<tr><td colspan="2">Class contact:</td></tr>
<tr><td>▪ Lecture</td><td>39 Hrs.</td></tr>
<tr><td>▪ Tutorial/Lab</td><td>0 Hrs.</td></tr>
<tr><td colspan="2">Other student study effort:</td></tr>
<tr><td>▪ Assignments, Quizzes, Projects, Exam</td><td>80 Hrs.</td></tr>
<tr><td>Total student study effort</td><td>119 Hrs.</td></tr>
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<tr><td>Reading List and References</td><td>References:
1. CISA Review Manual, ISACA publications.
2. CRISC Review Manual, ISACA Publications.
3. CISSP CBK, ISC2 publication
4. Calder, Alan and Watkins, Steve, IT Governance – An international guide to data security and ISO27001/ISO27002.
5. Whitman, Michael E. and Mattord, Herbert J., Management of Information Security, Cengage.
6. ISACA Journal
7. The Computer Journal, British Computer Society
8. Harvard Business Review</td></tr>
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