SUBJECT DESCRIPTION FORM

Subject Title: Information Systems Audit and Control

Subject Code: COMP5135

Credit Value: 3

Pre-requisite: (Subject title and code no, if any) Nil

Recommended background knowledge:

Some exposure to Computer Science, Information Systems, Business Accounting – advantageous but not essential.

Mutual Exclusions: Nil

Learning Approach:

42 hours of class activities including - lecture, tutorial, lab, workshop seminar where applicable

Assessment:

Continuous Assessment	60%
Tests, and Examination	40%

Objectives:

This subject allows students to acquire, in pedagogic terms, the basic core knowledge of the field of Information Systems Audit and Control, the audit process and the protection of information, consistent with the *ISACA Model Curriculum* (Note 1), and to develop, in pragmatic terms, the necessary background and skills needed to enter the Information Systems Audit and Control profession (Note 2). This course aims to:

- introduce students to the fundamental concepts, procedures and standards of IS audit and controls;
- describe the qualifications needed to enter and become successful in this field;
- develop students' practical skills in handling various types of IS audits and examining the IS controls; and
- prepare students to develop generic skills in communication, individual and team works, case analysis and reporting, and creative problem solving.

The Department reserves the right to update the syllabus contents. Please note that the learning approach for the same subject could vary slightly due to different delivery modes if applicable.

Learning Outcomes:

After completing the subject, students should be able to:

1. understand the IS audit key elements and the standards of performance required by the profession;
2. understand the complexities of IS controls;
3. develop good practical skills in developing and testing IS controls;
4. assess the impacts of IS audit and control on the operation of organisations;
5. perform the audit process including the planning of an audit, the application of IS audit tools and techniques and evaluation methods used in performing IS audits, the differentiation of the specialty areas within the IS audit field, and the making of an informed choice as to which emphasis is best for them, and documenting work performed and collecting evidence to support work performed;
6. exercise good communication and interpersonal skills in handling IS audit projects and presenting the audit results;
7. demonstrate problem solving skills by applying risk management approaches in the audit life cycle; and
8. attempt the CISA examination (Note 3).

Keyword Syllabus:

The IS Audit process
IS Audit
Concepts of auditing and internal control
Audit planning
Audit evidence

IT governance
IT governance framework
IT strategies vs. corporate strategies
Risk Management methodologies and tools
Control frameworks: CobiT, COSO, Basel II, ISO/IEC27002
Auditing IT governance structure and implementation

Protection of information assets
Information security management
Logical IT security and applied IT security
Physical and environmental security
Auditing information security management framework

Business continuity and disaster recovery
Concepts related to business continuity plan and disaster recovery
The planning process and components

Reference Books

1. *CISA Review Manual*, ISACA publications
2. Hunton, J.E., Bryant, S.M., and Bagranoff, N.A., *Core Concepts of Information Technology Auditing*, John Wiley & Sons, 2004
3. Champlain, J.J., *Auditing Information Systems*, John Wiley, 2003

Journals

ISACA publications, including the *IS Audit and Control Journal*

Notes:

Note 1: The *ISACA Model Curriculum for IS Audit and Control* (2009) was designed and created, primarily as an educational resource for academics, assurance and control professionals, by a Task Force appointed by the Information Systems Audit and Control Association (ISACA), and reviewed by the ISACA Board of Directors and the Academic Relations Committee, and others. ISACA (www.isaca.org), founded in 1969, is a recognized world leader in IT governance, control, security and assurance, with more than 86,000 members in more than 160 countries. The topics covered by the Model Curriculum are grouped in six *domains*:

1. The IS Audit process;
2. IT governance;
3. Systems and infrastructure lifecycle management;
4. IT service delivery and support;
5. Protection of information assets; and
6. Business continuity and disaster recovery.

Note 2: This course provides an additional career venue to a challenging and rewarding field. Those qualified are highly in demand, and prospective employers include the Big-4 international audit/consulting firms, multinational and national corporations, government agencies, as well as SMEs, in Hong Kong, Greater China and elsewhere.

Note 3: This syllabus is designed to cover domains 1, 2, 5 and 6 (see Note 1 above) while the topics of domains 3 and 4 are expected to be covered in other courses in Computer Science and/or Information Systems, or Business/Management or Accounting. Students should be well prepared to attempt the CISA examination where Certified Information Systems Auditor™ (CISA®), a globally respected professional qualification, was developed and administered by ISACA, and the CISA designation is awarded to those individuals who have met, and continue to meet, the following requirements: successful completion of the CISA examination; IS auditing, control and security experience (minimum 5 years); continuing professional education; and compliance with the IS Auditing standards.