IIMT3686 – Information Systems Audit and Control

GENERAL INFORMATION

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Consultation: by appointment

Pre-requisites: IIMT2601 Management Information Systems
Co-requisites:
Mutually exclusive:

Course Website: http://www.moodle.hku.hk

COURSE DESCRIPTION

This course is designed to provide an overview of computer information systems auditing and control, and their application in the business environment. It is intended for general business students. Topics include the information systems audit process, information technology governance, systems and infrastructure lifecycle management, information systems auditing methodology and information security policy, information technology service delivery and support, computer-assisted audit tools and techniques, protection of information assets, as well as disaster recovery and business continuity planning.

COURSE OBJECTIVES

1. To enable students to comprehend general audit, information systems audit and control, IT governance and their applications to the business environment
2. To enhance students' competency towards risk management, information systems audit, assurance, business continuity planning, disaster recovery planning, and internal control
3. To develop students' critical understanding of Computer Assisted Audit Tools and Techniques (CAATTs) and its business applications for data extraction and analysis
4. To gain insight into computer-assisted frauds and fraud detection techniques for business asset protection

FACULTY LEARNING GOALS (FLGs)

FLG1: Acquisition and internalization of knowledge of the programme discipline
FLG2: Application and integration of knowledge
FLG3: Inculcating professionalism and leadership
FLG4: Developing global outlook
FLG5: Mastering communication skills
FLG6: Cultivating leadership

COURSE LEARNING OUTCOMES

Course Learning Outcomes		Aligned Faculty Learning Goals (FLGs)
CLO1	Articulate the concepts of general auditing and information systems audit and control	FLG1
CLO2	Apply the IS audit methodology and formulate information security policy	FLG2, 3 & 5
CLO3	Evaluate the organization's IT governance, risk management, IS control and security architecture, business continuity plan, disaster recovery plan, and propose solutions in addressing related issues	FLG2, 3, 4, 5 & 6
CLO4	Develop knowledge and skills in the application of various types of computer-assisted audit tools and techniques	FLG1 & 2

COURSE TEACHING AND LEARNING ACTIVITIES

Course Teaching and Learning Activities	Expected contact/self-study hour	Study Load (% of study)
T&L1. **Lectures**: Key concepts and knowledge will be thoroughly discussed in-class.	36	25
T&L3. **Group project**: Students are required to conduct audit planning, risk assessment or review internal controls, etc. and propose recommendations for an organization.	65	44
T&L4. **Midterm**: Students are to be assessed in one Midterm for their knowledge of the topics covered in class and their ability to apply the knowledge.	40	28
T&L5. **In-class student participation**: Students are expected to actively engage in class discussions by sharing their views, ideas, and opinions.	5	3
Total:	146	100%

Assessment Methods	Brief Description	Weight	Aligned Course Learning Outcomes
A1. Group Project	This is a team-based exercise. Students are required to demonstrate classroom knowledge and extended research through conducting an in-depth analysis on specific IS audit and control issues and proposing feasible recommendations for a selected organization.	40%	2, 3 & 4
A2. Group Project Presentation	Students are required to present their group project in the project presentation.	15%	2 & 3
A3. Midterm	There is a written Midterm.	30%	1, 2 & 3
A4. Student Participation	Students are expected to actively contribute and share their ideas/experiences whenever appropriate.	15%	1, 2 & 3
	Total	**100%**	

STANDARDS FOR ASSESSMENT

Course Grade Descriptors

A+, A, A-	Student has consistently demonstrated an excellent grasp of information systems audit and control as evidenced by original or exceptionally astute analysis and synthesis of student work.
B+, B, B-	Student has demonstrated a substantial grasp of information systems audit and control as evidenced by above average performance in analysis and synthesis of student work.
C+, C, C-	Student has demonstrated a fair grasp of information systems audit and control as evidenced by average performance in analysis and synthesis of student work.
D+, D	Student has demonstrated limited grasp of information systems audit and control as evidenced by barely satisfactory performance in analysis and synthesis of student work.
F	Student has demonstrated very limited grasp of information systems audit and control as evidenced by poor performance in analysis and synthesis of student work.

COURSE CONTENT AND TEACHING SCHEDULE (TENTATIVE)		
Week	**Topic**	**Remark**
1	Introduction Fundamentals of IS Audit and Control	
2	IS Audit Process (I)	
3	IS Audit Process (II)	
4	IS Audit Management (I)	
5	IS Audit Management (II)	
6	IS Governance (I)	
7	*Reading Week*	
8	IS Governance (II)	
9	Protection of Information Assets (I)	
10	Protection of Information Assets (II)	
11	Business Continuity and Disaster Recovery	
12	*Presentations*	
13	*Presentations*	

REQUIRED/RECOMMENDED READINGS & ONLINE MATERIALS

Text Book:

Information Technology Auditing (4th Edition) by James A. Hall, Cengage Learning, 2016

Supporting materials can be downloaded from Moodle when available.

Optional Reference Books:

1. Auditor's Guide to IT Auditing (2nd Edition) by Richard E. Cascarino, John Wiley & Sons, 2015
2. Information Technology Control and Audit (4th Edition) by Sandra Senft, Frederick Gallegos and Aleksandra Davis, CRC Press, 2012
3. Fundamentals of Information Systems Security (3rd Edition) by David Kim and Michael G. Solomon, Jones & Barlett Learning, 2018
4. Auditing: A Risk-Based Approach to Conducting a Quality Audit (International Edition) (9th Edition) by Karla M. Johnstone, Audrey A. Gramling and Larry E. Rittenberg, South-Western Cengage Learning, 2014
5. IT Auditing Using Controls to Protect Information Assets (2nd Edition) by Chris Davis, Mike Schiller & Kevin Wheeler, McGraw Hill, 2011
6. IT Audit, Control, and Security by Robert R. Moeller, John Wiley & Sons, 2010

MEANS/PROCESSES FOR STUDENT FEEDBACK ON COURSE
SFTL

COURSE POLICY
■ Attendance of all lectures is not mandatory but strongly encouraged. ■ Plagiarism and copying of copyright materials are serious offences and may lead to disciplinary actions. For detailed procedures related to plagiarism, please refer to the URL: http://www.hku.hk/plagiarism/page2s.htm

ADDITIONAL COURSE INFORMATION

Late Penalty

All assessment tasks must be submitted on or before the specified due date and time to the designated submission destination. The penalty policy for any late assignments will be as follows:

No. of days later than the due date	Deduction of the total point
1 day	deduct 25%
2 days	deduct 50%
3 days	deduct 100%

ASSESSMENT RUBRICS

AT1: Group Project

Objectives
Students are required to conduct relevant audit planning with appropriate risk assessments, internal control reviews, etc. and propose recommendations for an organization in terms of an IT implementation, as specified by the course lecturer *(to be advised in due course)*.

Students are required to:
- form groups;
- demonstrate classroom knowledge and extended research as far as possible;
- select and investigate an organization; and
- present your findings in a written report and a presentation.

The group project will be used to assess students' ability to (1) demonstrate classroom knowledge and extended research as far as possible; (2) identify an organization with the specific IT implementation and corresponding IS audit and control issues; (3) conduct thorough and in-depth analysis of the organization in terms of specific IS audit and control perspectives; (4) make feasible recommendations on improving the issues.

The report is expected to be thorough, precise, clear, fluent, and consistent. The report must be highly coherent whereby recommendations follow logically from the analyses and the analyses from the findings. Both breadth and depth in discussions and analyses are expected. Sufficient, relevant, and reliable facts/data/evidence should be used to support analyses/arguments/discussions/claims. Appropriate concepts/techniques/examples should be employed to illustrate students' ideas. Findings/discussions/conclusions/recommendations should be feasible and implementable, while demonstrating insightfulness.

The length of the report must be within 5,000 words +/- 10% (excluding cover page, appendices, references). The report should be typed and in A4-size paper, double-spaced with font size 12. Professional formats for referencing and citations as specified in the Student Handbook must be followed.

The group project will be assessed against the following criteria with specific weightings and marking rubrics indicated in the table below:

Performance Level	Assessment Rubrics for Group Project
Outstanding	The analyses are very insightful, critical, thorough, systematic, consistent, sufficiently supported by relevant and helpful fact/data, and effective application of appropriate concepts / techniques / examples, which are very closely integrated to the analyses. The overall assessment demonstrates a very profound understanding of the organization and the relevant IS audit and control issues and generates insightful findings by professionally synthesizing across the analyses. All or almost all key issues are clearly and accurately identified from various perspectives. Highly relevant evidence/fact is provided to support the arguments. The recommendations are very creative, practical, systematic, logical and aligned with the analyses.

	The report effectively arouses and maintains the reader's interest. It is well organized, with coherence and smooth progression of ideas, articulated with clarity and fluency. It is of an appropriate length and tone, including proper and consistent referencing and citations without errors.
Proficient	The analyses are quite insightful, critical, thorough, systematic, consistent, sufficiently supported by relevant and helpful fact/data, and effective application of appropriate concepts / techniques / examples, which are quite closely integrated to the analyses. The overall assessment demonstrates a good understanding of the organization and the relevant IS audit and control issues and generates insightful findings by reasonably synthesizing across the analyses. Majority of key issues are clearly and accurately identified from various perspectives. Quite relevant evidence/fact is provided to support the arguments. The recommendations are quite creative, practical, systematic, logical and aligned with the analyses. The report effectively arouses and maintains the reader's interest. It is quite organized, with coherence and smooth progression of ideas, articulated with clarity and fluency. It is of an appropriate length and tone, including proper and consistent referencing and citations with minor errors.
Competent	The analyses are reasonably insightful, critical, thorough, systematic, consistent, sufficiently supported by relevant and helpful fact/data, and effective application of appropriate concepts / techniques / examples, which are loosely integrated to the analyses. The overall assessment demonstrates an acceptable understanding of the organization and the relevant IS audit and control issues and generates some insightful findings by loosely synthesizing across the analyses. Some key issues are clearly and accurately identified from various perspectives. Some relevant evidence/fact is provided to support the arguments. The recommendations are sufficiently creative, practical, systematic, logical and aligned with the analyses. The report arouses and maintains the reader's interest. It is largely organized, with coherence and smooth progression of ideas, articulated with clarity and fluency. It is of an appropriate length and tone, including proper and consistent referencing and citations with some errors.
Adequate	The analyses are barely insightful, critical, thorough, systematic, consistent, insufficiently supported by relevant and helpful fact/data, and effective application of appropriate concepts / techniques / examples, which are loosely integrated to the analyses. The overall assessment demonstrates an acceptable understanding of the organization and the relevant IS audit and control issues and generates insightful findings by barely synthesizing across the analyses. A small number of key issues are identified from various perspectives. Relevant evidence/fact is provided in a limited extent to support the arguments. The recommendations are less creative, practical, systematic, logical and aligned with the analyses. The report barely arouses and maintains the reader's interest. It is less organized and articulated. It is of a less appropriate length and tone, including proper and consistent referencing and citations with a relative large number of errors.
Fail	The analyses are not insightful, critical, thorough, systematic, consistent, insufficiently supported by relevant and helpful fact/data, and effective application of appropriate concepts / techniques / examples, which are not integrated to the analyses. The overall assessment demonstrates a limited understanding of the organization and the relevant IS audit and control issues and generates non-insightful findings without a synthesis across the analyses. No or very minimal key issues are identified from various perspectives. Relevant evidence/fact is not provided to support the arguments in most cases. The recommendations are not creative, practical, systematic, logical and aligned with the analyses. The report does not arouse and maintain the reader's interest. It is unorganized and not articulated with clarity and fluency. It is of an inappropriate length and tone, including improper and non-consistent referencing and citations.

AT2: Group Project Presentation

Students are required to present their problem statements and solutions in the project presentation. Each group will conduct a group presentation. Assessment criteria is as follows:

Explanations for Required Content	Explanations for Assessment Criteria
Presentation Content Students are required to impress the audience with the key contributions of the study.	■ Organization and coherence ■ Consistency and accuracy
Presentation Aids ■ Students are required to use presentation aids (e.g. PowerPoint slides) to elaborate their ideas. The effective use of presentation aids will be assessed.	■ Effective use of presentation aids ■ Professional design of presentation slides
Presentation Style ■ Students are expected to present their project in a formal and professional manner.	■ Engagement of audience ■ Creativity, confidence, and enthusiasm shown ■ Appropriate length, pace and tone

The group project presentation will be assessed against the following criteria with specific weightings and marking rubrics indicated in the table below:

Performance Level	Assessment Rubrics for Group Project Presentation
Outstanding	■ The presentation is excellent and well organized, clear and fluent, with smooth progression of ideas, effective use of presentation aids, and appropriate length, pace and tone. ■ The presentation group skillfully engages the audience and demonstrates a consistently high level of creativity, confidence, and enthusiasm.
Proficient	■ The presentation is well organized and coherent, making generally effective use of presentation aids. It is of an appropriate length, pace and tone. ■ The presentation group is generally able to engage the audience and demonstrates a consistently high level of creativity, confidence, and enthusiasm.
Competent	■ The presentation is organized, moderately clear and fluent, with appropriate use of presentation aids. It is more or less of an appropriate length, pace and tone. ■ The presentation group attempts to engage the audience and show a moderate level of creativity, confidence, and enthusiasm.
Adequate	■ The presentation shows adequate effort to engage the audience, and demonstrates creativity, confidence, and enthusiasm.
Fail	■ The presentation is poor and not well-organized, unclear and not fluent with smooth progression of ideas, ineffective use of presentation aids, and inappropriate length, pace and tone. ■ The presentation group makes little effort to engage the audience and demonstrate very low level of creativity, confidence, and enthusiasm.

AT3: Midterm

There will be a written Midterm. Students should revise all the material covered in the course. The Midterm will be used to assess students' (a) understanding of key IS Audit and Control concepts and knowledge; and (b) application of the learned knowledge and skills to recommend solutions relevant to the contexts. The Midterm is **NOT** to be missed. **NO** make-up Midterm will be provided even with medical reasons.

The marking rubrics for the Midterm are indicated in the table below:

Performance Level	Assessment Rubrics for the Midterm
Outstanding	Most of the responses are accurately and clearly marked.
Proficient	Above average number of the responses are accurately and clearly marked.
Competent	Average number of the responses are accurately and clearly marked.
Adequate	Below average number of the responses are accurately and clearly marked.
Fail	Unsatisfactory number of the responses are accurately and clearly marked.

AT4: Student Participation
Active student participation is emphasized in this course. Students are expected to contribute and share their ideas/thoughts/experiences whenever appropriate to achieve active and peer learning.

END