

**THE UNIVERSITY OF HONG KONG
FACULTY OF BUSINESS AND ECONOMICS
SCHOOL OF BUSINESS**

**Course Outline
IIMT3686 – Information Systems Audit and Control**

GENERAL INFORMATION	
<p>Lecturer: Dr. C K Lok Email: cklok@hku.hk Office: Room 813 K.K. Leung Building Phone: 3917 5692 Consultation: by appointment</p> <p>Teaching Assistant: Mr. Ian Chan Email: ikwchan@hku.hk</p> <p>Pre-requisites: IIMT2601 Management Information Systems Co-requisites: Mutually exclusive:</p> <p>Course Website: http://www.moodle.hku.hk</p>	
COURSE DESCRIPTION	
<p>This course seeks to explore how enterprise-wide IT resources can be secured, managed, and leveraged through appropriate IT governance and internal controls. The most effective way to mitigate IT-associated risks is to design and implement IT audit and control mechanism with a risk management approach. IT must be systematically organized and monitored as a resource with carefully designed and executed IT policies to maximize its impacts. After all, firms in the digital economy leverage IT to gain a competitive advantage.</p>	
COURSE OBJECTIVES	
<ol style="list-style-type: none"> 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 (CAATs) 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 	
PROGRAMME LEARNING OUTCOMES	
<p>PLO1: Acquisition and internalization of knowledge of the programme discipline PLO2: Application and integration of knowledge PLO3: Inculcating professionalism and leadership PLO4: Developing global outlook PLO5: Mastering communication skills</p>	
COURSE LEARNING OUTCOMES	
Course Learning Outcomes	Aligned Programme Learning Outcomes
CLO1 Articulate the concepts of general auditing and information systems audit and control	PLO 1
CLO2 Apply the IS audit methodology and formulate information security policy	PLO 2, 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	PLO 2, 3, 4 & 5
CLO4 Develop knowledge and skills in the application of various types of computer-assisted audit tools and techniques	PLO 1 & 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&L2. 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&L3. Mid-term Examination: Students are to be assessed in one Mid-term Examination for their knowledge of the topics covered in class and their ability to apply the knowledge.		40	28
T&L4. 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 project with two students in each team. 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.	40%	2, 3 & 4
A2. Group Project Presentation	Students are required to present their group project in a project presentation.	15%	2 & 3
A3. Mid-term Examination	There is a 90-minute written Mid-term Examination with closed books and no notes.	30%	1, 2 & 3
A4. Student Participation	Students are expected to actively contribute and share their ideas/experiences/insights in class, whenever appropriate.	15%	1, 2 & 3
Total		100%	
STANDARDS FOR ASSESSMENT			
Course Grade Descriptors			
A+, A, A-	100 - 85%	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-	84 - 70%	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-	69 - 60%	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	59 - 50%	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	<50%	Student has demonstrated very limited grasp of information systems audit and control as evidenced by poor performance in analysis and synthesis of student work.	

Assessment Rubrics for Each Assessment

Refer to the corresponding sections

COURSE CONTENT AND TEACHING SCHEDULE (TENTATIVE)

Week	Date	Topic	Remark
1	1 + 5 Sept	Introduction Fundamentals of IS Audit and Control	
2	8 + 12 Sept*	IS Audit Process (I)	
3	15 + 19 Sept**	IS Audit Process (II)	
4	22 + 26 Sept	IS Audit Management (I)	
5	29 Sept + 3 Oct	IS Audit Management (II)	
6	6 + 13 Oct	IS Governance (I)	
7	17 + 20 Oct	Reading Week	
8	24 + 27 Oct***	IS Governance (II) <i>Mid-term Examination (24 Oct)</i>	
9	31 Oct + 3 Nov	Protection of Information Assets (I)	
10	7 + 10 Nov	Protection of Information Assets (II)	
11	14 + 17 Nov	Business Continuity and Disaster Recovery	
12	21 + 24 Nov****	Presentations	
13	28 Nov****	Presentations	

* Project group list due (MUST register via Moodle) on **12 September 2016** before **5:00pm**.

** Project proposals due (hardcopy) **19 September 2016** in the beginning of class.

*** Mid-term Examination is to be conducted in class. NO make-up Mid-term Examination will be offered even with medical reason/certificate.

**** Written projects are due in 7 days after your presentation, e.g. if your presentation is on 21 Nov, the due date for both the hard and soft copies of your report is 5:00pm, 28 Nov. For hard copies, please submit to the Assignment Box with my name and course code at the lift lobby on 8/F KKL Building. For soft copies, please submit via Moodle.

REQUIRED/RECOMMENDED READINGS & ONLINE MATERIALS

Text Books:

1. Auditor's Guide to IT Auditing by Richard E. Cascarino, John Wiley & Sons, 2012
2. Information Technology Control and Audit, Fourth Edition by Sandra Senft, Frederick Gallegos and Aleksandra Davis, CRC Press, 2012
3. Information Technology Auditing (3rd Edition) by James A. Hall, Cengage Learning, 2011

Optional Reference Books:

1. 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
2. IT Auditing Using Controls to Protect Information Assets (2nd Edition) by Chris Davis, Mike Schiller & Kevin Wheeler, McGraw Hill, 2011
3. IT Audit, Control, and Security by Robert R. Moeller, John Wiley & Sons, 2010

4. Fundamentals Of Information Systems Security by David Kim and Michael G. Solomon, Jones & Barlett Learning, 2013

MEANS/PROCESSES FOR STUDENT FEEDBACK ON COURSE

- conducting mid-term survey in addition to SETL around the end of the semester
- Online response via Moodle site
- Others: _____ (please specify)

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 projects must be submitted on or before the specified due date and time to the assignment 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 for Individual Assessment Tasks (TENTATIVE):

AT1: Group Project

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 (*details are to be advised in due course*).

Students are required to:

- form groups of *two*;
- 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) identify an organization with the specific IT implementation and corresponding IS audit and control issues; (2) conduct thorough and in-depth analyses of the organization and the specific IT implementation in terms of specific IS audit and control perspectives; and (3) make feasible recommendations on improving the issues/concerns.

The report is expected to be thorough, precise, clear, fluent, and consistent. The report must be highly coherent whereby the recommendations follow logically from the analyses and the analyses from the findings. Both breath and depth throughout the report 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 critical and specific while demonstrating creativity and 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 (with Score Range)	Assessment Rubrics for Group Project
Outstanding (100-85)	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

	<p>integrated to the analyses.</p> <p>The overall assessment demonstrates a very profound understanding of the organization and the relevant IS audit and control issues and generates specific insights by professionally synthesizing across the analyses.</p> <p>All or almost all key issues are clearly and accurately identified from various perspectives. Highly relevant evidence/fact is provided to support the arguments.</p> <p>The recommendations are very creative, practical, systematic, logical and aligned with the analyses.</p> <p>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.</p>
<p>Proficient (84-70)</p>	<p>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.</p> <p>The overall assessment demonstrates a good understanding of the organization and the relevant IS audit and control issues and generates specific insights by reasonably synthesizing across the analyses.</p> <p>Majority of key issues are clearly and accurately identified from various perspectives. Quite relevant evidence/fact is provided to support the arguments.</p> <p>The recommendations are quite creative, practical, systematic, logical and aligned with the analyses.</p> <p>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.</p>

<p>Competent (69-60)</p>	<p>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.</p> <p>The overall assessment demonstrates an acceptable understanding of the organization and the relevant IS audit and control issues and generates some specific insights by loosely synthesizing across the analyses.</p> <p>Some key issues are clearly and accurately identified from various perspectives. Some relevant evidence/fact is provided to support the arguments.</p> <p>The recommendations are sufficiently creative, practical, systematic, logical and aligned with the analyses.</p> <p>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.</p>
<p>Adequate (59-50)</p>	<p>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.</p> <p>The overall assessment demonstrates an acceptable understanding of the organization and the relevant IS audit and control issues and generates minimal amount of specific insights by barely synthesizing across the analyses.</p> <p>A small number of key issues are identified from various perspectives. Relevant evidence/fact is provided in a limited extent to support the arguments.</p> <p>The recommendations are less creative, practical, systematic, logical and aligned with the analyses.</p> <p>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</p>

	proper and consistent referencing and citations with a relative large number of errors.
Fail (<50)	<p>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.</p> <p>The overall assessment demonstrates a limited understanding of the organization and the relevant IS audit and control issues without a synthesis across the analyses.</p> <p>No or very minimal key issues are identified from various perspectives. Relevant evidence/fact is not provided to support the arguments in most cases.</p> <p>The recommendations are not creative, practical, systematic, logical and aligned with the analyses.</p> <p>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.</p>

AT2: Group Project Presentation

Students are required to present their project work in a verbal format. Assessment criteria are as follows:

Explanations for Required Content	Explanations for Assessment Criteria
<p><u>Presentation Content</u></p> <p>Students are required to impress the audience with the key contributions of the study.</p>	<ul style="list-style-type: none"> ■ Organization and coherence ■ Consistency and accuracy
<p><u>Presentation Aids</u></p> <ul style="list-style-type: none"> ■ Students are required to use presentation aids (e.g. PowerPoint slides) to elaborate their ideas. The effective use of presentation aids will be assessed. 	<ul style="list-style-type: none"> ■ Effective use of presentation aids ■ Professional design of presentation slides
<p><u>Presentation Style</u></p>	

<ul style="list-style-type: none"> ■ Students are expected to present their project in a formal and professional manner. 	<ul style="list-style-type: none"> ■ Engagement of audience ■ Creativity, confidence, and enthusiasm shown ■ Appropriate length, pace and tone
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The group project presentation will be assessed against the following criteria with specific weightings and marking rubrics indicated in the table below:

Performance Level (with Score Range)	Assessment Rubrics for Group Project Presentation
Outstanding (100-85)	<ul style="list-style-type: none"> ■ 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 (84-70)	<ul style="list-style-type: none"> ■ 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 (69-60)	<ul style="list-style-type: none"> ■ 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 (59-50)	<ul style="list-style-type: none"> ■ The presentation shows adequate effort to engage the audience, and demonstrates creativity, confidence, and enthusiasm.
Fail (<50)	<ul style="list-style-type: none"> ■ 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.
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Late Penalty:

All projects must be submitted on or before the specified due date and time to the assignment 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%

AT3: Mid-term Examination

There will be a 90-minute written Mid-term Examination without books and notes. Students should revise all the material covered in the course. The Mid-term Examination 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 marking rubrics for the written examination are indicated in the table below:

Performance Level (with score range)	Assessment Rubrics for the Mid-term Examination
Outstanding (100-85)	85%-100% of the responses are accurately and clearly marked.
Proficient (84-70)	84%-70% of the responses are accurately and clearly marked.
Competent (69-60)	69%-60% of the responses are accurately and clearly marked.
Adequate (59-50)	59%-50% of the responses are accurately and clearly marked.
Fail (<50)	Fewer than 50% of the responses are accurately and clearly marked.

AT4: Student Participation

Active in-class student participation is emphasized in this course. Students are expected to contribute and share their ideas/experiences/insights, whenever appropriate, to achieve active and peer learning.