

Sauder School of Business
University of British Columbia
Commerce 456: Information Technology Risks, Protection and Audit
(January-April 2011) (West Mall Swing Space 306)

Class: Tuesday and Thursday, 9.30-11.00am

Prerequisite: Commerce 335 (some exceptions allowed)

Professor: Dr. Andrew Burton-Jones (HA 665, andrew.burton-jones@sauder.ubc.ca, 604 827 3260)

Office Hours: By appointment

COURSE OBJECTIVES

Business and society are incredibly dependent on information technology. This is especially evident when systems break down or are misused. This course concentrates on what can go wrong with information systems, the role of management in implementing controls to prevent, detect, and correct such exposures, and the role of the audit and security functions in designing, understanding, and testing those controls. Best practices for IT governance are examined and techniques for reviewing and auditing computerized systems and controls are discussed and evaluated.

The purpose of this very practical and case-based course is for students to learn:

- the impact of new laws (e.g., the Sarbanes-Oxley Act) on managing and using IT in business
- significant risks businesses face due to their reliance on IT, and their implications, e.g.:
 - o the need to align IT strategies with business strategies
 - o the risks that can occur when the development of core business systems is outsourced to third parties or developed by offshore parties.
 - o the need to maintain business continuity in the face of severe natural or human threats (e.g., earthquakes, hurricanes, or terrorist actions)
 - o risks due to malicious acts such as hacking, deliberate sabotage, and white-collar crimes
- controls that businesses can institute to mitigating such significant IT-related risks
- procedures for identifying and testing controls (both manual and software-based), including forensic auditing techniques
- management of the IS governance and audit function
- careers in IS governance, auditing, and security

COURSE WEB SITE AND WEBCT

The course will utilize Vista for outside classroom learning. It will be used to post additional materials (e.g., solution to assignments) and for discussions. If you need more information about Vista, please go to <https://www.elearning.ubc.ca/> and click on the link for Vista.

COURSE GRADING

Participation (attendance and contribution)	15%	To pass the course, you must obtain > 50% on each component. An ISACA prize is possible based on outstanding performance.
Quizzes (4 of 5 quizzes * 2.5 points)	10%	
Cases ((5 of 9 cases * 5 points) + 5 presentation points)	30% (can be done in pairs)	
Project (ACL) (done in groups of 3)	12.5%	
Research and creative project (to be done in groups of 3)	32.5%	

CLASS PARTICIPATION

Active participation in the *classroom* and via the *Vista discussion forum* is critical. Two things count: involvement and substance. You will be graded on what you contribute, so, get involved!

READINGS

Textbook: No textbook

Lecture Notes Package: Chapters and articles are available from the Sauder Copy Shop.

Software: ACL software is available to students in the computer labs.

COURSE PLAN (Tentative and subject to change)

Week	Dates	Readings	Topic	Major Events
			INTRODUCTION	
1	1/4 1/6	Weber 1, Berghel 2005	Introduction to IS Auditing and the IS Auditing Process <i>No class this Thursday</i>	Case assignment Start group project
2	1/11 1/13	Weber 2	IS Audit Process (lecture) IS Audit Process (cases)	Quiz 1, Case 1
			INTERNAL CONTROLS	
3	1/18 1/20	Huff 2006	Introduction to Controls (lecture) Introduction to Controls (cases)	Case 2
4	1/25 1/27	Damianides 2005, Nolan 2005	IT Governance (lecture) Presenter 1 – IT Governance (Peter)	
5	2/1 2/3	Keil, 2003, Nelson 2007	IT Governance (cases) Systems Infrastructure (lecture)	Case 3
6	2/8 2/10	Creeger 2008	Systems Infrastructure (cases) IT Service Delivery (lecture)	Case 4
	2/15 2/17		<i>Spring break</i>	
7	2/22 2/24	Paller 2005, Xu 2008	IT Service Delivery (cases) Protection of Information Assets (lecture)	Quiz 2, Case 5
8	3/1 3/3		Protection of Information Assets (cases) Presenter 2 – Internal Controls (Erica)	Quiz 3, Case 6
9	3/8 3/10	Junglas 2007	Business Continuity & Disaster Recovery (lecture) Business Continuity & Disaster Recovery (cases)	Quiz 4, Case 7
			EVIDENCE COLLECTION AND EVALUATION	
10	3/15 3/17	Handscombe 2007, Berghel 2003	Project work (ACL) in lab Presenter 3 – IT-Based Evidence Collection (CAAT) (Mike)	
11	3/22 3/24	Hall, Dillon	Project work (Group Creative Project) in lab Human-Based Evidence Collection	Quiz 5, Case 8
			MANAGEMENT	
12	3/29 3/31	Drucker 2005, Kaplan, 2008	Evaluating Evidence, and Audit Management Presenter 4 – Key Lessons for Careers (Tom)	Case 9
			SUMMARY	
13	4/5 4/7		Course Summary Review	Projects Due
	4/11		<i>Exam Week (No final exam)</i>	

RESEARCH AND CREATIVE PROJECT

Not counting the introductory and concluding topics of the course, there are eight specific areas of IT risk management and auditing that we cover in the course:

1. IT Governance
2. Systems Infrastructure
3. IT Service Delivery
4. Protection of Information Assets
5. Business Continuity and Disaster Recovery
6. Computer Based Evidence Collection (CAAT)
7. Human-Based Evidence Collection
8. Evaluating Evidence

In the research and creative project, you are to:

- Pick one of these topics
- Research the topic further
- Create a multimedia Web deliverable based on your research

The content of the deliverable is up to you and could vary widely depending on your effort and ingenuity. Think creatively! As a general guide, however, the deliverable should fulfill three aims:

1. It should be interesting – focus on why people should care about the topic
2. It should educate the viewer – go beyond the course notes and assigned readings and tell us something new about the topic
3. It should include a career component – for example, if you picked “IT Governance” as your topic, tell us about careers in IT Governance. Aim for about 50% of your content to be on the career component.

What do I mean by a multimedia Web deliverable?

- The final deliverable should be posted on the course website. I will grade that version.
- By “multimedia,” I mean any combination of text and pictures. Text can vary from written text to audio (spoken text) and pictures can vary from graphics (static pictures) to video.

Therefore, your final deliverable might include a simple webpage with text and a few graphics, or it might involve something richer, such as text, graphics, and audio/video.

I encourage you to do two types of research. First, read books, articles, and websites on the topic. Make sure you cite all of your sources. Second, collect some original data, for example, by interviewing people who work in the area. Make sure you obtain their permission, of course, if you are posting their interview (whether text, audio, or video) on the website.

As a general guide regarding length, your final deliverable should take about 30 minutes to review. Consequently, don't produce 20 detailed web pages of text and 20 videos. Instead, focus on producing something that tells an integrated, interesting, and not too long story about the topic.

Final note: I designed this assignment to be open-ended to allow you to show creativity and independent research skills. Feel free to discuss the assignment with me during the course if you have questions. Have fun with it. Examples from last year can be seen under the topics on this page: <http://itrm.sauder.ubc.ca/current> Simply add yours!