DEAPARTMENT OF ACCOUNTING
INTERNAL CONTROLS AND ACCOUNTING INFORMATION SYSTEMS
ACCT-GB.6215
Summer 2014

Instructor: Prof. Joel Lanz, MBA, CPA/CGMA/CFF/CITP, CFE, CISSP, CISA, CISM
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Office Hours: Before and after class and by appointment/telephone
Phone: 516-933-3662 (please leave message with alternate times to get back to you – weekend telephone appointments can also be arranged).
Class Sections of Internal Controls and Accounting Information Systems:

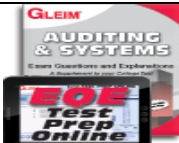| DATES	ACCT-GB.6215 Section #	DAY	TIME	LOCATION
05/27-07/01	60	Tu	9:00am-11:55am	T-200
05/27-07/01	61	Tu	1:00pm-3:55pm	T-200

Note: Subject to space limitations and prior instructor approval, students may attend either section's lecture.   Students may only submit exams in the section that they are registered for.

Course Materials:

The following course <u>material is required</u>:

	(R) "Accounting Information Systems" by Romney and Steinbart, - 13th ed Prentice Hall, ISBN-13: 9780133428537.

The following course <u>materials ARE NOT REQUIRED</u>. These references can be used by those students who are pursuing the CPA exam and would like to supplement this course with relevant CPA exam review study aids. *Please note that I am not endorsing any particular study guide but am referring to it as a general reference that is easily obtained in the market.* Should you use a different study guide, I would welcome the opportunity to meet with you and map out the applicable study sections of your guide with the course requirements. PLEASE REFER TO CPA EXAM SECTION BELOW.

	Unfortunately course material is included in two sections of the CPA Exam – AUD and BEC. As a result you would need to get either the comprehensive editions (where summaries and questions are sold separately) or individual sections (where summaries and questions sold together in one book).
	Primarily geared to the AUD section, this "less expensive" alternative provides questions and solutions to MOST but not all of the CPA exam-related issues covered in this course.

COURSE OBJECTIVES/GOALS:

The purpose of this course is to help prepare you for a successful career in public practice, industry, or government by understanding how to audit, use and participate in the design of accounting information systems. The course will also help students learn how to assess and consider the impact of IT governance, risk and compliance on accounting functions, focusing on how IT affects business process and controls and the impact on financial reporting. The course will enable students to understand issues and developments in IT Auditing so that as practitioners, they can properly determine how to assess accounting system controls to effectively address the adequacy of controls in audited systems or for those systems that they have management responsibility. Recent regulatory and financial reporting developments will also be discussed. An increasingly competitive global marketplace has organizations clamoring for better information assurance or additional business insight. While IT professionals have the technical expertise necessary to ensure that IT hardware is secure or technology solutions are properly deployed, they lack the Certified Public Accountant (CPA) or financial manager's perspective and ability to understand the complicated business implications and risks associated with technology.

Information technologies impact every aspect of accounting, including financial reporting, managerial accounting, auditing and tax. The nature of the work done by CPAs and financial managers continues to evolve as these technologies advance. In a number of organizations, technology function now reports to the Chief Financial Officer or their designee. The storage of business assets and financial information has led to recent professional pronouncements requiring that accounting professionals understand the technology controls used to process and record this information. As information increasingly becomes digitalized, significant opportunities exist for accounting professionals and their firms to leverage technology tools to become more efficient in performing traditional services and open opportunities for new client services.

Responding to the above opportunities, the AICPA has recently introduced a variety of new assurance services enabling professionals to provide assurance in technology-related environments including Trust Services, Privacy Framework and Risk Advisory. The AICPA has also introduced a specialty credential – Certified Information Technology Professional (CITP) and an Information Technology section.

The course is composed of the following topics and their approximate percentage of course time:
- Conceptual foundations of Accounting Information Systems and flowcharting (20%)
- Control and audit of Accounting Informations Systems including Information Security and System Reliability (25%)
- Corporate Governance and Technology Risk Management (20%)
- System Development Process and IT Vendor Management Oversight including System Implementation, Change Control and Operations (10%)
- Application Controls Emphasizing the Revenue Cycle (25%)

COURSE REQUIREMENTS AND GRADING:

SEGMENT	% OF GRADE
Professional Behavior and Class Participation	10%
Homework Assignment - Cyberprotect	5%
Midterm Exam	40%
Final Exam	45%

Grades are determined following the Undergraduate College Grading Guidelines:
 A's – awarded for excellent work
 B's – awarded for good or very good work
 C's (or below) – awarded for adequate or below work.

Re-Grading:

In line with Grading Guidelines for NYU Stern, the process of assigning of grades is intended to be one of unbiased evaluation. This means that students are encouraged to respect the integrity and authority of the professor's grading system and discouraged from pursuing arbitrary challenges to it.

If a student feels that an inadvertent error has been made in the grading of an individual assignment or in assessing the overall course grade, a request to have the grade be re-evaluated may be submitted. Students should submit such requests in writing to the professor within 7 days of receiving the grade, including a brief written statement of why he or she believes that an error in grading has been made

Professional Behavior and Class Participation:

Students will accumulate points by participating in class by asking questions or by successfully responding to questions posed during class. <u>Points in this category can only accumulate by attending and actively participating in class.</u>
NOTE 1: Depending on time availability in class, there may not be time for everyone to participate in every session. It is important that you proactively manage your participation and not wait to be called on in order to achieve the maximum grade for this category.
NOTE 2: Students are expected to have completed the reading assignment and attempt assigned problems to the best of their ability prior to class. Students will be at a significant disadvantage during lectures if they do not come appropriately prepared.
NOTE 3: The class time will consist of combined lecture/discussion of chapter material, and review of assigned homework. You are expected to contribute to the review of homework. Students will organize themselves into teams of five. Teams will be called upon to lead the discussion of class problems. Quality and effectiveness of team discussions will be incorporated into the student's grade for this component.

Midterm and Final Exams:

All exams will be administered during established class times. Further information on the exams will be provided during the semester. Make-up exams will only be given for *extremely highly unusual and extraordinary cases of **MEDICALLY DOCUMENTED** emergencies. (NOTE: Under no circumstances will a job conflict qualify for a reason to take a make-up exam)*. ***Any decisions or exceptions to make up exams are at the sole and final discretion of the Professor.***

GENERAL COURSE NOTICES

Students are expected to attend class and to be thoroughly prepared to discuss the assigned readings and assignments. Professional standards continually evolve and change. As part of their professional development, students will need to learn how to monitor developments and maintain their competencies.

All participants must engage in appropriate professional behavior. Professional behavior is characterized by the following attributes: prompt arrival to class, courteous behavior in class (i.e., being attentive while others are speaking, dedicating your attention to this class while the class is in session, leaving class at the designated time, no use of cell phones, etc.), and professional preparation for class. To prepare for class professionally, you should read the assignment s prior to class, prepare assigned problems, engage in class discussion, and actively participate in group activities.

Consider the following additional points as you prepare for class:
- You should be prepared to discuss all readings on the dates assigned. We will not have enough time to cover everything that is important in the class, so you must take the initiative to raise questions on material that you do not understand.
- As clients expect from a licensed professional and their practice, appreciate the effort required to properly prepare for class.
- Leverage group study and automated tools to manage your time. As in the real world, you are encouraged to "network with your peers" as necessary to prepare for and complete assignments – both in-person and using discussion boards.

Academic Integrity:

Integrity is critical to the learning process and to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:
- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one's own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.

- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

NYU STERN Policies:

- Unless specifically identified in the syllabus, default Stern policies apply to this course.
- The School expects that students will conduct themselves with respect and professionalism toward faculty, students, and others present in class and will follow the rules laid down by the instructor for classroom behavior. Students who fail to do so may be asked to leave the classroom.
- Students are encouraged to work together for homework assignments.
- Course evaluations are important to us and to students who come after you. Please complete them thoughtfully.
- Your class may be recorded for educational purposes.
- The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found at:
    - Undergraduate College: http://www.stern.nyu.edu/uc/codeofconduct
    - Graduate Programs: http://w4.stern.nyu.edu/studentactivities/involved.cfm?doc_id=102505

Student Contact Information:

Student contact information must be kept current in order to receive important notices from the school and from me. Your contact information is **online via your NYU Learns course e-mail**. Please check your local address, local phone number, and emergency contact information on the school's Web and revise as needed. <u>All important class notices, including class communications, will be sent only to your NYU Learns email address.</u>

<u>STUDENTS WITH DISABILITIES</u>

If you have a qualified disability and will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Moses Center for Students with Disabilities (CSD, 998-4980, www.nyu.edu/csd) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the CSD, you must submit a completed Exam Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation.

DAY	TOPIC, ASSIGNMENT, AND NOTES
Tu. May 27 (#1)	Topic: Class Introduction Topic: Introduction to AIS Topic: Overview of Transaction Processing & ERP Topic: Computer Fraud Readings: Chapters 1, 2 and 5 (as needed). Note: These are background/review chapters reflecting information that depending on the individual's background, may have been covered in previous coursework. Please "skim" the chapters based on your individual need and background. Further lectures and assignments assume you understand the foundation concepts included in these chapters. Lecture Notes: Class will begin with a brief course introduction and review of the syllabus. We then will begin a "summary-level" and VERY fast-paced SUMMARY lecture by chapter, will quickly review the most critical, but not all of the concepts that will provide a foundation for the rest of the course. For each chapter we will discuss the responses to the class problems identified below to help the student determine whether they understand the critical concepts needed from these chapters. Be Prepared to Discuss in Class Problems (Romney): P1-3 (a-d); P5-8. Optional - CPA Exam Review (Gleim): SU 22.1-22.5; SU3.3, 3.6 & 3.7. Optional - CPA Exam Review (Wiley): Module 2A (Fraud Only); Module 41A.
Tu. June 3 (#2)	Topic: Cybersecurity and Privacy Readings: Chapters 6, 8 and 9. Business Week: 'Missed Alarms and 40 Million Stolen Credit Card Numbers: How Target Blew It," March 13, 2014. Optional – For those seeking further guidance and reference on the impact of Cybersecurity and Business, please refer to the Harvard Business review Insight Center "Data Under Siege," at http://hbr.org/special-collections/insight/data-under-siege. Optional – For those seeking practical technology guidance to more effectively design Cybersecurity defenses please refer to "The Critical Security Controls for Effective Cyber Defense – Version 5," available at http://www.sans.org/critical-security-controls/controls. Optional – The SEC's OCIE Cybersecurity Initiative available at http://www.sec.gov/ocie/announcement/Cybersecurity+Risk+Alert++%2526+Appendix+-+4.15.14.pdf. Optional – For those seeking further guidance on future cybersecurity framework and expected baseline practices refer to "Executive Order 13638:Cybersecurity Framework," available at http://www.nist.gov/cyberframework/. Lecture Notes: Today's lecture will discuss some of the more technical aspects of the course. In addition to learning some of the relevant "jargon" used to describe various hacking techniques, students will gain an appreciation of the risks of Cybersecurity and the mitigation strategies employed. The lecture is designed to inform students about the key risks and challenges in managing critical information security risks. These risks continue to attract the attention of the Board as well as regulators. For example, The Securities and Exchange Commission hosted a roundtable at its

	Washington, D.C., headquarters on March 26 to discuss cybersecurity and the issues and challenges it raises for market participants and public companies, and how they are addressing those concerns. Be Prepared to Discuss in Class Problems (Romney): P6-2, C6-1, P8-4. **Hand In HW (DUE AT START OF LECTURE # 4) – C8-2 (US Department of Defense CyberProtect Simulation). Grade not be based on actual score achieved, but rather on proof of individual work and quality of justification for choices (requirement b) and explanation of what was learned (requirement d).** Optional - CPA Exam Review (Gleim): SU 22.6, 22.9 and 22.12. Optional - CPA Exam Review (Wiley): Module 41B.
Tu. June 10 (#3)	Topic: Corporate Governance and Technology Risk Management Readings: Chapter 3, 7 and 10. Optional – For those seeking further information about COSO "Internal Control – Integrated Framework: Executive Summary," COSO, May 2013. Available at http://www.coso.org/documents/990025P_Executive_Summary_final_may20_e.pdf. Optional – for those seeking further information on how the COSO Frameworks can help improve organizational performance and governance – "Improving Organizational Performance and Governance: How the COSO Frameworks can Help," COSO, February 2014. Available at http://www.coso.org/documents/2014-2-10-COSO%20Thought%20Paper.pdf. Optional – To find out more about CoBIT 5 visit http://www.isaca.org/cobit/pages/default.aspx. Lecture Notes: Today's lecture will introduce students to Corporate Governance and Technology Rusk Management. We will briefly review flowcharting and how it is used to document our understanding of business processes. The focus will be on reading rather than developing flowcharts. We will then discuss the use of frameworks used to facilitate the design and assessment of corporate governance, including recently updated versions of COSO and CoBIT, including the COSO approach to Risk Management. A quick summary of the more common IT controls that CPAs are most likely to consider will also be provided. Be Prepared to Discuss in Class Problems (Romney): P7-3, P7-4, P10-7, P10-8. Optional - CPA Exam Review (Gleim): SU 22.10-12, SU 5.1-5.2, SU 5.4. Optional - CPA Exam Review (Wiley): Module 40, 41D.
Tu. June 17 (#4)	**IN-CLASS MIDTERM EXAM** *Scope of the exam will include material from Lectures 1-3 (only chapter 3 from lecture 3 as the other chapters will be tested in the final) and will be administered during the first half of the class.* Topic: IT Auditing Techniques Topic: Introduction to SDLC Readings: Chapters 11 and 20. Notes: Today's lecture will consist of two distinct sections. The first section will summarize the IT Audit process and focus on the assessment of general or pervasive controls. A review of how audit software may be used in the audit process will also be discussed. We will also discuss how organizations use application security to enforce segregation of responsibilities. The second section will be to provide students with a "businessperson's understanding" of the systems development life cycle (SDLC) with specific application to analysis of systems.

	Optional – Students interested in learning more about the SDLC process should consider reading chapter 21 and those interested in furthering their knowledge of pervasive or general controls read chapter 22.
	Optional – Those students seeking to further their understanding of IT Auditing should review the IT Audit Basics column published since 2002 by ISACA. These articles are classified by subject area and are available at http://www.isaca.org/Knowledge-Center/ITAF-IS-Assurance-Audit-/IT-Audit-Basics/Pages/IT-Audit-Basics-Articles.aspx.
	Optional – For a businessperson's perspective on IT Risk, consider reading "IT Risk: turning Business Threats into Competitive Advantage," by George Westerman and published by Harvard Business School Press, 2007.
	Be Prepared to Discuss in Class Problems (Romney): P11-5, P11-11
	Optional - CPA Exam Review (Gleim): SU 22.7-8, SU 5.5.
	Optional - CPA Exam Review (Wiley): Modules 8, 41E and F.
Tu. June 24 (#5)	Topic: Revenue Cycle
	Reading: (R) Chapters 12
	Notes: Today's lecture will provide a detailed walk-through of one of the most important cycles that students are likely to be involved with early in their professional careers. The lecture will build on the non-IT understanding of cycles that students obtained in previous courses (including Auditing). Our emphasis will be on threats and controls that can be implemented to reduce and manage risk to acceptable levels. A high level discussion of how flowcharts can be used to document and communicate internal control understandings will also be discussed. Due to the nature of the material, the lecture will closely follow the illustrations provided in the textbook.
	Be Prepared to Discuss in Class Problems (Romney): P12-7(a), 12-8(a), 12-9, 12-10
	Optional - CPA Exam Review (Gleim): SU 6, SU 11.
	Optional - CPA Exam Review (Wiley): Modules 3D, 4B and C (revenue cycle only for all three).
Tu. July 1 (#6)	**IN-CLASS FINAL EXAMINATION**
	Scope of the exam will include material from Lectures 3 (chapters 7 and 10)-5. Although the final is not intentionally meant to be cumulative, due to the nature of the material tested, it is assumed that students will be able to apply knowledge obtained during the first half of the course to respond to test questions from the latter half of the course.