

**FALL 2004**  
**C.W. POST CAMPUS OF LONG ISLAND UNIVERSITY**  
**COLLEGE OF MANAGEMENT**  
**SCHOOL OF PROFESSIONAL ACCOUNTANCY**  
**ACC 753 – ADVANCED ASSURANCE SERVICES AND COMPUTER AUDITING**  
**Instructor: Joel Lanz, CPA, CISA, CISSP, CFE**  
Office Hours: By appointment  
Phone: (516) 933-3662  
Email: joel.lanz@liu.edu

**Graduate Bulletin Description:**

This course provides an advanced review of assurance services and an in-depth analysis of computer auditing. Students study current and emerging applications of assurance services, including information systems assurance. The course also reviews the collection and evaluation of evidence using statistical sampling techniques and hands-on computer assisted audit tools and techniques (CAATTs).

**Background**

Technology plays an increasing role in supporting business initiatives, service delivery and financial reporting. The storage of business assets and financial information has led to recent professional pronouncements requiring that auditors understand the technology controls used to process and record this information. As information increasingly becomes digitalized, significant opportunities exist for assurance professionals to leverage technology tools to become more efficient in performing traditional services and open opportunities for new client services. 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 purpose of this course is to help you develop a keen appreciation for the challenges of setting an assurance services strategy in a technology environment, including using technology resources and audit specific software to facilitate the performance of traditional audit services. This knowledge should benefit you whether you pursue a career as an assurance professional or in any area that is dependent on an information product or service provider. It should be of great value to those who will audit, manage or provide due diligence services to companies dependent on technology.

**Assumed Knowledge:**

ACC 753 is a core requirement in the M.S. in Accountancy program, which is intended for students who have completed an undergraduate degree in accounting. As a result, it is assumed that you have a basic understanding of the revenue (e.g., sales and accounts receivable), purchasing/payables and inventory cycles. The completion of a one semester course each in Auditing and Accounting Information Systems (or equivalent knowledge) is also assumed.

Due to the nature of the areas addressed by this course, certain topics may be technologically complex. Lectures will review the essentials of these technologies – however, depending on experience and prior course work, individual students may need to read “high-level” supplemental material. Please contact me for any assistance required in this area.

**Course Web Site**

A web-based, password-protected class site (e.g., WebCT) is available to you. Syllabi, assignments, copies of selected presentations and other resources will be made available to you within this site. Site activities could include exchanging e-mail, engaging in class discussions and chats, and exchanging files. In addition, class e-mail rosters are a component of this site and will serve as the primary means for my communicating with you outside of class if needed. Both mid-term and final exams will be administered through the

course web site.

### **Texts and Software:**

Required:

1. "Auditing Information Systems," 2<sup>nd</sup> Edition, by Jack J. Champlain, 2003 – John Wiley & Sons, ISBN 0-471-28117-4. (Can be purchased through bookstore).
2. IDEA 2004 Workbook by Audimation Services Inc. (purchased from publisher through the professor – please bring check for \$25). Includes semester educational demo and workbook data files.

You will also be required to access a variety of reading materials on the internet. Further details are provided below.

### **Grading:**

Students are expected to attend class and to be thoroughly prepared to discuss the assigned readings. Grades will be based on the following components:

|                                     |     |
|-------------------------------------|-----|
| Class Preparation and Participation | 20% |
| Mid Term                            | 25% |
| Final                               | 25% |
| Term Project                        | 30% |

### **Class Preparation and Participation:**

In this class much of the learning is dependent on the accessing the combined knowledge and experience of the group. It is everyone's job to keep the discussion productive and moving forward. In class discussions it is equally important to talk about *how* to do something, as it is to talk about *what* to do. Contributions don't all have to be original flashes of insight - but these are very welcome! Class members who summarize, clarify, simplify or suggest what else needs to be covered can also make a valuable contribution. If you are shy about contributing, prepare well and speak longer when you have the floor. If you are confident about speaking in public, focus in increasing the quality to airtime ratio of your contributions. I encourage you to take some risks in this class, assuming you have done the analysis and assessed the evidence. In evaluating your contribution to class learning I take many factors into account.

Things I view positively include:

- useful ideas, coherently and succinctly expressed
- good analysis supported by case facts or your own experience
- relevance to previous contributions i.e., ability to listen and build on what others say
- constructive disagreement
- regard, respect and acknowledgment of other's contributions
- readiness to contribute upon receiving a "cold call"
- a good sense of humor

Factors I view negatively include:

- lack of involvement - silence, detachment or disinterest
- leading our discussion into unrelated topics
- spending undue amount of time on minor points
- long, rambling comments.
- being absent or unprepared, or passing on a cold call

If you are concerned about your contribution to class learning please make an appointment to see me. I will

provide feedback on class participation about half way through the semester.

Please note that participants should not prepare written abstracts or responses for submission, but rather come prepared to class to discuss the assignment. Homework (e.g., reading/preparation assignments) is expected to take approximately two-four hours for each lecture, dependent on the student's technology background.

### **Mid-Term and Final Exam:**

Both the Mid-Term and Final Exam will consist of 33 short answers (multiple choice, true-false, etc.) questions. The Final Exam will be non-cumulative. Both exams will be administered electronically via the University's WebCT system. The exams will include material both from lectures and the reading materials. It is anticipated that for each exam you will have a one week period to complete the two-hour exam online in accordance with the following schedule (please note that the exam must be taken during a single two hour sitting within the designated one week period):

|          | One Week Period         | Scope of Exam         |
|----------|-------------------------|-----------------------|
| Mid-Term | October 29 –November 4  | Lectures 1 through 7  |
| Final    | December 9 -December 16 | Lectures 8 through 13 |

### **Term Project:**

For the term project, you will participate as a member of a three or four person IT Audit team (based on class enrollment). Each team will be required to complete the following tasks:

- prepare an engagement memo to the audit partner describing proposed scope of IT audit involvement and intended deliverables;
- complete audit software assignments for accounts receivable, accounts payable and inventory using the IDEA Text and Software;
- prepare and submit deliverables for the financial audit partner in accordance with the engagement memo – including appropriate workpapers, supporting conclusions reached and any other items “deemed necessary” including observations on data analyzed using statistical sampling and recommendation for efforts required in performing tests of control and substantive testing procedures;
- prepare and present a “PowerPoint” discussion document to review “computer audit” findings, management control recommendations, and recommendations for financial audit scope adjustment with the financial audit partner (other members of the class); and
- present the above discussion document in class.

Overall grade (30 points) will be based on both an individual student (15 points) and team effort (15 points). Further details on the Project will be distributed and discussed during the Introduction to IDEA lecture. It is anticipated that students will devote approximately 40 to 60 hours to complete the term project.

### **Course Schedule:**

The course is composed of the following topics and their approximate percentage of course time:

- Computer audit practices in the financial statement audit (28%)
- Use of computer audit and statistical sampling tools in financial statement audit strategy (36%)
- Advanced assurance services including introduction to information security review services (22%)
- Course administration, examinations and student presentations (14%)

| <b>DATE</b>  | <b>LECTURE/DISCUSSION TOPIC</b>  | <b>READING/PREPARATION ASSIGNMENT</b>  | <b>COMMENTS</b>  |
|--------------|--|--|--|
| Sep. 9 (#1)  | Course Overview and Introduction   | None   | Will also discuss the role of computer audit in CPA firms and internal audit departments including career opportunities.   |
| Sep. 23 (#2) | Computer Audit, Professional Literature and Introduction to AICPA Assurance Services.                | Read SAS 94.<br>Read Champlain Chapter 10: "Control Self Assessment and an Application in an Information Systems Environment."<br>Survey SAS 70;<br>Survey SSAE 10.<br>Survey AICPA's Trust Service Principles and Criteria v 1.0 available on the AICPA website).<br>Survey AICPA's Privacy Framework   | Information on AICPA Assurance Services available at <a href="http://www.aicpa.org/assurance/trustservices/index.asp">http://www.aicpa.org/assurance/trustservices/index.asp</a> . Will also include limited discussion on literature from the IIA, ISACA and IFAC.                  |
| Sep. 30 (#3) | Introduction to Information Technology Governance  | Read "IT Governance Global Status Report: Executive Summary"<br>Read "IT Governance Executive Summary"<br>Read "CoBIT Executive Summary"<br>Read Champlain Chapters 3: "Information Systems Audit Program"<br>Read Champlain Chapter 4: Information Security Policies, Standards and Guidelines.<br>Read CICA's "20 Questions Directors Should Ask About IT."<br>Survey "Board Briefing on IT Governance." | IT Governance and Board Briefing documents available at <a href="http://www.itgi.org">www.itgi.org</a> . CICA publication available at <a href="http://www.cica.ca/index.cfm/ci_id/1000/la_id/1.htm">http://www.cica.ca/index.cfm/ci_id/1000/la_id/1.htm</a>                         |
| Oct. 7 (#4)  | Vendor and Third Party Service Provider Assurance  | Read Champlain Chapter 5: "Auditing Service Organizations Applications."<br>Read Champlain Chapter 6: "Assessing the Financial Stability of Vendor Organization Contracts, and Examining Accounting Treatment of Computer Equipment and Software."<br>Read Champlain Chapter 15: "Information Systems Project Management Audits."<br>Read CICA publication "Information Technology Outsourcing."           | CICA material available at <a href="http://www.cica.ca/multimedia/Download_Library/Research_Guidance/IT_Advisory_Committee/English/eIToutsourcing0204.pdf">http://www.cica.ca/multimedia/Download_Library/Research_Guidance/IT_Advisory_Committee/English/eIToutsourcing0204.pdf</a> |
| Oct. 14 (#5) | Performing a General Controls Review as part of a Financial Audit – Physical Security and Operations | Read Champlain Chapter 7: "Physical Security."<br>Read Champlain Chapter 9: "Information Systems Operations."  |  |
| Oct. 21 (#6) | Performing a General Controls Review as part of a Financial Audit – Logical Security                 | Read Champlain Chapter 8: "Logical Security."<br>Scan Champlain Chapter 11: "Encryption and Cryptography."   |  |
| Oct. 28 (#7) | Performing a General Controls Review as part of  | Read: "Can Your Business Survive the Unexpected (J of A 2/99),   | J of A article available from <a href="http://www.aicpa.org/pubs/j">http://www.aicpa.org/pubs/j</a>  |

|               |   |  |  |
|---------------|---|--|--|
|               | a Financial Audit - Business Continuity and Disaster Recovery                               | Read: "Business Continuity Planning: A Risk Manager's Agenda for Operational and Credit Risk Management (The RMA Journal 3/2002),"<br>Scan: NIST Contingency Planning Guide for Information Technology Systems.  | <a href="http://ofa/feb1999/rodetis.htm">ofa/feb1999/rodetis.htm</a> .<br>RMA Journal article will be distributed prior to class.<br>NIST guide available at <a href="http://csrc.nist.gov/publications/nistpubs/800-34/sp800-34.pdf">http://csrc.nist.gov/publications/nistpubs/800-34/sp800-34.pdf</a> |
| Nov. 2 (#8)   | Detecting Fraud Using Computer Audit Reports  | Read: "Proactively Detecting Occupational Fraud Using Computer Audit Reports,"<br>Scan: AICPA's Antifraud and Corporate Responsibility Resource Center.  | Occupational Fraud Report available at <a href="http://www.theiia.org/iaa/index.cfm?doc_id=4248">www.theiia.org/iaa/index.cfm?doc_id=4248</a> . AICPA resource center located at <a href="http://www.aicpa.org/antifraud/homepage.htm">http://www.aicpa.org/antifraud/homepage.htm</a> .                 |
| Nov. 4 (#9)   | IDEA Applications   | Read "IDEA Workbook Section 1"<br>Scan "IDEA Workbook Sections 2, 3 and 4"<br>Read IDEA Case Study   | Lecture will primarily consist of illustrating the use of IDEA including the introduction of some advanced concepts. IDEA case study will be distributed in class.   |
| Nov. 11 (#10) | Other Computer Auditing and Data Analysis Tools and Applications Including Security Testing | Read "Network and Security Management Software as Audit Tools," "Hacking 101," "Security Benchmark Tools," "Vulnerability Assessment Tools," "Automating System Security Audits."<br>Scan and Explore: Microsoft Security Baseline Analyzer web site.  | All publications available on <a href="http://www.itaudit.org">www.itaudit.org</a> .<br>Visit <a href="http://www.microsoft.com">www.microsoft.com</a> for information on the baseline security analyzer. We will also discuss advanced Excel features as well as a new tool - Active Data for Excel.    |
| Nov. 18 (#11) | Statistical Sampling  | Read "AU 350 – Audit Sampling"<br>Read "Comptroller's Handbook – Sampling Methodologies"   | The Comptroller's Handbook is available at <a href="http://www.occ.treas.gov/handbook/sampmeth.pdf">www.occ.treas.gov/handbook/sampmeth.pdf</a> . Lecture will also demonstrate use of IDEA to perform statistical sampling.   |
| Dec. 2 (#12)  | Performing an Applications Control Review as part of a Financial Audit                      | Read "An Introduction to Computer Auditing –Pat Deux, No. 15-17," "Audit and Control of PeopleSoft Human Resources and Payroll," "Implementing and Enhancing Data Security in Your PeopleSoft Environment," "Getting the Most from Duplicate Payment Audits," "Facing the Data Integrity Challenge," "Inventory Control Audits," "Auditing Transportation Services," "Auditing Work-In-Process." | All documents available at <a href="http://www.itaudit.org">www.itaudit.org</a> . (part deux articles are in the new IT auditor section, other articles are in the audit tools section).   |
| Dec. 9 (#13)  | IT and Sarbanes-Oxley   | Read ISACA's "IT Control Objectives for Sarbanes-Oxley."   | <a href="http://www.isaca.org/Template.cfm?Section=Home&amp;Template=/ContentManagement/ContentDisplay.cfm&amp;ContentID=12406">http://www.isaca.org/Template.cfm?Section=Home&amp;Template=/ContentManagement/ContentDisplay.cfm&amp;ContentID=12406</a>  |
| Dec. 16 (#14) | Term Project Presentations  | Not Applicable   | Not Applicable   |

