

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

REQUIRED COURSE TEXT/READINGS

- Hall, James A., (2016), *Information Technology Auditing, 4e*, Mason: South-Western CENGAGE Learning (Referred to as “IT Audit Text” in the Readings List for each class)
- CPA Canada Assurance Handbook, available online from York University library, (referred as “Handbook” in the Readings List for each class).
- Additional material listed below and referenced by links and assignment details posted on the course site.

Selected readings are from: [Note this book is available on reserve at the business library in the Schulich building if you do not have a copy.]

- Alvin A. Arens, Randal J. Elder, Mark S. Beasley, Chris E. Hogan and Joanne C. Jones, (2018), *Auditing: The Art and Science of Assurance Engagements*, Canadian Fourteenth Edition, Pearson. (Referred to as “Audit Text” in the Readings List)

WEIGHTING OF COURSE

Deliverables are Individual work unless otherwise stated	Weighting	Due date
Class Participation	10%	Ongoing
Hand in Case Assignment	10%	Session 3
Midterm exam - Covers Sessions 1 to 5	20%	Session 6
Audit data analytics assignment	15%	Audit data analytics Navigation Exercise Audit data analytics Analysis Both due Session 8
Group Assignment	15%	Group Term Paper due Session 10 Group Presentations Session 11
Final exam during regular examination schedule	30%	Date assigned by Registrar’s Office
Total	100%	

Assignment Submission

All written assignments including the group project should be submitted online on the due date.

It is the student’s responsibility to ensure that all assignments are received in an accessible format on or before the due date. Late assignments will receive a grade of zero.

Reallocation of Marks if work is Missed

If a midterm examination is missed due to a valid reason such as illness or other reason approved by the Course Director, the midterm mark allocation will be added to the final examination percentage.

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

The documentation required to support this reallocation is a completed medical form (physician's statement) provided by the Registrar's Office, available from:

<http://www.yorku.ca/laps/council/students/documents/APS.pdf>

If an assignment is missed, consult with the Course Director. Any assignments that have been discussed in class, or the solutions posted on the course web site, cannot be submitted late, and will receive a grade of zero.

Deferred Examination Policy for Final Examination

Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. In order to apply for deferred standing, students must register at <http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf> then subsequently hand in a completed DSA (Deferred Standing Agreement) form with supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson). Write your ticket number from the online registration system directly onto the DSA form. The DSA and supporting documentation must be submitted no later than five (5) business days from the date of the exam to the main office of the School of Administrative Studies (282 Atkinson), NOT to the Course Director.

These requests will be considered on their merit and decisions will be made on a case by case basis. Decisions will be made available by logging into the following link: <http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf>. No individualized communication will be sent by the School to the students (no letter or e-mails).

Students with an approved DSA will be able to write their deferred examination during the School's deferred examination period. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not. Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

DSA Form: http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf

Attending Physician's Statement form: <http://www.yorku.ca/laps/council/students/documents/APS.pdf>

PREREQUISITES/CO-REQUISITES:

1) For students in the Honours program, 78 credits including AP/ADMS 3595 3.00, AP/ADMS 4551 3.00; and AP/ADMS 2511 3.00 or AP/ADMS 3511 3.00 (prior to Summer 2005) or

2) other students, these above-listed courses and an average grade of C+ or better in AP/ADMS 3585 3.00 and AP/ADMS 3595 3.00. Course credit exclusion: None.

Students are personally responsible for ensuring that they have the required prerequisites as stated in the course outline or the course calendar. Students who do not have the prerequisites or a signed prerequisite waiver are at risk of being dropped from the course at any time during the course. The department will not be responsible for refunds resulting from students being dropped from a course due to a lack of the appropriate prerequisites.

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

ORGANIZATION OF THE COURSE:

Overheads for the lectures will be posted after the class of that week. Note that some changes to practice problems may occur. Please check the course web site regularly.

Session Description and Readings
<p>Session 1 – September 9, 2020 <i>Audit Process, Audit Risk Model, Internal Controls Assessment Process</i></p> <p>Learning objectives:</p> <ol style="list-style-type: none">(1) Apply the financial statement audit process to the audit of advanced information systems(2) Fit the audit risk model to the nature of a client's business(3) Contrast the internal audit process to the financial statement audit process(4) Match the IT Auditor's skills to the audit team's requirements (external and internal auditors)(5) Provide the correct IT audit engagement type for the client's needs(6) Locate and use IT audit standards (ISACA and others)(7) Apply the COSO framework to IT auditing(8) Describe the control risk assessment process <p><u>Readings:</u> IT Audit Text: Chapter 1; Audit Text: Figure 4-8 The Audit Process, p.111; Handbook: CAS 315, Identifying and assessing the risks of material misstatement through understanding the entity and its environment CAS 330, ISACA website: The auditor's responses to assessed risks Controls (Performance and Supervision Guideline) http://www.isaca.org/Knowledge-Center/ITAF-IS-Assurance-Audit-IS-Audit-and-Assurance/Pages/Guideline-2203-Performance-and-Supervision.aspx</p>
<p>Session 2 – September 16, 2020 <i>IT Governance, IT Department Controls, Disaster Recovery Planning</i></p> <p>Learning objectives:</p> <ol style="list-style-type: none">(1) Describe the nature and purpose of IT Governance(2) Link the structure of the IT department and the associated computer centre structure to potential good controls in the IT department(3) Explain how the IT department structure affects the audit process(4) Assess risks of disruption of the IT department and describe preventive and detective controls associated with each risk(5) Describe the components of a DRP (disaster recovery plan)(6) Differentiate the nature of risks, control weaknesses, implications of control weaknesses, internal controls, audit objectives and audit procedures(7) Assess the quality and effectiveness of a DRP and provide recommendations for improvement <p><u>Readings:</u> IT Audit Text: Chapter 2 (p. 33-54 only) Audit Text: Chapter 8 (p. 262-270) COBIT 5 Framework: http://www.isaca.org/COBIT/Pages/FAQs.aspx</p>

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

Session Description and Readings

Session 3 – September 23, 2020

Privacy Controls, Privacy Assurance Engagements, Privacy Impact on Financial Statement Audit, Apply GVV Approach

Learning objectives:

- (1) Relate Canadian privacy laws in PIPEDA to relevant privacy risks and controls at organizations
- (2) Assess the quality of privacy controls and provide recommendations for improvement
- (3) Modify risk assessments for financial statement audits in response to privacy control strengths and weaknesses
- (4) Discuss advantages/disadvantages and standards for privacy assurance engagements
- (5) Use the GVV approach to examine an ethical dilemma in IT

Readings:

IT Audit Text: Chapter 12 (p. 566-570 only)

CPA Canada. 2012. "20 Questions Directors Should ask About IT," Review Questions #4, 14, 15, 17 and 20 from: <https://www.cpacanada.ca/en/business-and-accounting-resources/other-general-business-topics/information-management-and-technology/publications/20-questions-on-information-technology>

Gentile, Mary G. undated. "Giving Voice to Values: Ways of Thinking About our Values in the Workplace," from: "Giving Voice to Values Curriculum," <http://www.babson.edu/faculty/teaching-learning/gvv/Pages/curriculum.aspx> [go to the header "Foundational Readings and Exercises." It is the first link under this header.]

Session 4 – September 25, 2019

Access and Integrity Controls, E-Commerce/Internet and Cloud Computing, EDI

Learning objectives:

- (1) Relate access control risks to potential controls and the impact on the audit process
- (2) Describe risks and controls for: networks, e-commerce, cloud computing, EDI and PC-based systems
- (3) For the above types of systems:
 - a. conduct a control risk assessment
 - b. provide recommendations for improvement where there are control weaknesses
 - c. assess audit strategy and prepare an audit program in response to assessed risks
- (4) Flow through the impact of weaknesses in general controls discussed in this class to application cycles and audit procedures

Readings:

IT Audit Text: Chapter 3

CPA Canada. 2012. "20 Questions Directors Should ask About IT," Review Questions #1, 2, 4, 5, 10, 17, 20 from: <https://www.cpacanada.ca/en/business-and-accounting-resources/other-general-business-topics/information-management-and-technology/publications/20-questions-on-information-technology>

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

Session Description and Readings
<p>Session 5 – October 7, 2020 <i>IT Change Management, Audit of IT Change Management, Conversion Audits</i></p> <p>Learning objectives:</p> <ol style="list-style-type: none">(1) Describe controls to mitigate risks for IT change management(2) Conduct a control risk assessment of IT change management, providing recommendations for improvement(3) Design audit procedures for specific phases of the SDLC(4) Develop a substantive conversion audit program of date for an application cycle(5) Flow through the impact of weaknesses in general controls discussed in this class to application cycles and audit procedures <p><u>Readings:</u> IT Audit Text: Chapter 5</p> <p>CPA Canada. 2012. “20 Questions Directors Should ask About IT,” Review Questions #9, 11, 13 and Appendix #1 from: https://www.cpacanada.ca/en/business-and-accounting-resources/other-general-business-topics/information-management-and-technology/publications/20-questions-on-information-technology</p>
<p>Reading Week October 14, 2020 (NO CLASS)</p>
<p>Session 6 – October 21, 2020</p> <p>MIDTERM EXAMINATION covering Sessions 1 to 5</p> <p>If you miss the midterm examination, please contact your course director immediately.</p>

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

Session Description and Readings

Session 7 – October 28, 2020

Application Controls, CAATs for Control Tests, CAATs for Data Extraction, Continuous Auditing, Data Analytics

Ensure that your Passport York Accounts are working prior to the demonstration.

Learning objectives:

- (1) State the advantages and disadvantages of different types of ADAs
- (2) Consider the impact of data structure on audit technique selection
- (3) Provide manual and automated audit techniques by audit assertion
- (4) Explain the relationship between type of audit test and the audit risk model
- (5) Use audit data analytics to respond to risks and to conduct audit tests (identify types of tests and their purpose)
- (6) Describe continuous auditing and how it is implemented
- (7) State advantages and disadvantages of continuous auditing
- (8) Discuss mid-term results

Readings:

IT Audit Text: Chapter 7

IT Audit Text: Chapter 8 (p. 327-330, 350-370)

ISACA, IS Auditing Guideline: 2205 Evidence, from: <http://www.isaca.org/Knowledge-Center/ITAF-IS-Assurance-Audit-/IS-Audit-and-Assurance/Pages/Guideline-2205-Evidence.aspx>

CPA Canada, Audit Data Analytics Alert: Keeping up with the Pace of Change, 2016 from: <https://www.cpacanada.ca/en/business-and-accounting-resources/audit-and-assurance/canadian-auditing-standards-cas/publications/audit-data-analytics-alert-pace-of-change>

ISACA Journal, How Analytics will Transform Internal Audit, 2017 from: <https://www.isaca.org/Journal/archives/2017/Volume-2/Pages/how-analytics-will-transform-internal-audit.aspx>

Session 8 – November 4, 2020

Data Management Risks and Controls, Financial Reporting Systems, Batch vs. Online/Real-time, XBRL

Learning objectives:

- (1) State the impact of file organization structure on internal controls, general controls, and on backup processes
- (2) Relate backup processes to the type of file structure
- (3) Provide audit procedures for the audit of data quality
- (4) Provide audit procedures for the audit of backup procedures
- (5) Trace transaction audit trails for different types of data structures (manual, batch, real-time) and provide audit procedures to test the quality of audit trail
- (6) Describe risks in financial reporting systems, match with controls to mitigate the risks, provide control testing to test the controls, and provide substantive tests required by CASs
- (7) Same as (6) for XBRL

Readings:

IT Audit Text: Chapter 4 (skip network model on p. 146]

IT Audit Text: Chapter 6 (p. 223-236 (skip documentation techniques), p. 251-258 (skip data coding schema), 264 – end)

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

Session Description and Readings
<p>Session 9 – November 11, 2020 <i>Sales and Accounts Receivable Audit, Batch vs. Real-Time for Sales</i></p> <p>Learning objectives:</p> <ol style="list-style-type: none">(1) Assess risks in the revenues, receivables, receipts (RRR) cycle(2) Provide recommendations for improvement to address control weaknesses in the RRR cycle(3) State the purpose of, describe, and provide expected results for CAATs for sales, accounts receivable and cash receipts(4) Assess audit strategy and select audit procedures for the RRR cycle in response to assessed risks (manual or automated) <p><u>Readings:</u> IT Audit Text: Chapter 9</p>
<p>Session 10 – November 18, 2020 <i>Accounts Payable and Purchasing Audit, Payroll Audit (Expenditures), Batch vs. Real-Time for Payments</i></p> <p>Learning objectives:</p> <ol style="list-style-type: none">(1) Assess risks in the purchases and payroll (Expenditure) cycles(2) Provide recommendations for improvement to address control weaknesses in the Expenditure cycles(3) State the purpose of, describe, and provide expected results for CAATs for the expenditure cycles(4) Assess audit strategy and select audit procedures for the expenditure cycles in response to assessed risks (manual or automated) <p><u>Readings:</u> IT Audit Text: Chapter 10</p>
<p>Session 11 – November 25, 2020 <i>ERP, Data Warehousing, Impact of SOX and CSA NI 52-109 on IT Audit, Rotation of Control Testing</i></p> <p>Learning objectives:</p> <ol style="list-style-type: none">(1) Describe how SOX (U.S.) and Canada's CSA NI 52-109 have affected IT Auditing(2) Relate the nature of ERP to organizational risks associated with ERP(3) Relate the nature of Data Warehousing to organizational risks associated with Data Warehousing(4) Explain why access controls are the most important controls for ERP(5) Provide controls to mitigate risks associated with ERP and Data Warehousing(6) Assess audit strategy and select audit procedures in response to assessed risks for the audit of ERP and Data Warehousing(7) State the impact of the control environment and general controls on rotation of control testing <p><u>Readings:</u> IT Audit Text: Chapter 11</p>

AP/ADMS 4552 3.0 Information Systems Audit Fall 2020

Session Description and Readings

Session 12 – December 2, 2020

Audit of Outsourcing Arrangements, AICPA Trust Principles, SOC Reports, Small Business IT Controls and Audit, Block Chain and implications on Assurance

Learning objectives:

- (1) Assess risks in small businesses pertaining to IT
- (2) Provide recommendations for improvement for small business weaknesses pertaining to IT
- (3) Assess audit strategy and select audit procedures for the audit of small business
- (4) Assess risks associated with outsourcing arrangements
- (5) Assess the audit impact of outsourcing arrangements
- (6) Describe the types of assurance reports associated with outsourcing
- (7) Select and discuss the relevance of service organization assurance reporting
- (8) Describe the role and use of the AICPA Trust Principles, WebTrust and SysTrust

Readings:

Audit Text, Chapter 8, Understanding Controls of Small Organizations p. 271

Handbook: CAS 402 – Audit Considerations Relating to an Entity Using a Service Organization

CSAE 3416 – Reporting on Controls at a Service Organization

AICPA, Blockchain Technology and Its Potential Impact on the Audit and Assurance Profession, 2018 from: <https://www.aicpa.org/interestareas/frc/assuranceadvisoryservices/blockchain-impact-on-auditing.html>

Deloitte, Blockchain: A Game Changer for Audit Process, 2017 from: <https://www2.deloitte.com/mt/en/pages/audit/articles/mt-blockchain-a-game-changer-for-audit.html#>

Session 13 – Final Examination

Covers the entire course

Regular examination schedule TBD.